

**THE USE OF SCHOOL ASSETS IN GENERATION OF SUPPLEMENTARY
INCOME FOR SECONDARY SCHOOLS– A CASE OF NAIROBI PROVINCE,**

KENYA

BY

Namai Obuchere Joab

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DECLARATION

This thesis is my original work and has not been presented for a degree in this or any other university or institution of learning.

Namai, Obuchere Joab
E55/9155/2000

Date

SUPERVISORS' APPROVAL

This thesis has been submitted with our approval as university supervisors:

PROF.Gravenir,Q.Fredrick
Department of Education Management,
Policy and Curriculum Studies

Date

DR.Ogeta,O.Nobert
Department of Education Management,
Policy and Curriculum Studies

Date

DEDICATION

To my dear wife, family members and friends who selflessly gave their all to see me through school, and to all those who, like me, have or are going through education the hard way.

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ABBREVIATIONS AND ACRONYMS

G.D.P: Gross Domestic Product

G.E.R: Gross Enrolment Rate

G.N.P: Gross National Product

G.O.K: Government of Kenya

K.C.P.E: Kenya Certificate of Primary Education

K.C.S.E: Kenya Certificate of Secondary Education

KEMRI: Kenya Medical Research Institute

KETRI: Kenya Technical Research Institute

OPEC: Oil Producing and Exporting Countries

R.O.K: Republic of Kenya

TIQET: Totally Integrated Quality Education and Training

UNICEF: United Nations Children's Fund

ABSTRACT

Education has been considered a basic constituent in the development process of any nation. The educated people always have skills that are vital for sustainable economic growth and improved standards of living. Secondary education, which is very vital in the economic development, is accorded a comparatively lower financial allocation. The prevailing case necessitates that this level of education devices means by which income can be mobilised to supplement the meagre resources accessed through public expenditure. The aim of this study was to investigate how school assets could be used to generate supplementary income for secondary school education in Nairobi Province. With the current limitation in the financial resources open to the educational system, it is vital for the school establishment to participate in financing education. Literature regarding trends in education costs and the place of school assets in bridging the financial resource gap was reviewed. Supplementary resources were found necessary in sustaining secondary education since the rapid increase in education cost can not be proportionate to the household income. The study targeted public secondary schools within Nairobi Province. Descriptive sample survey design was employed to study the population as it appears. A total of 16 public secondary schools were sampled for the study, representing 30% of the total population. The schools were stratified according to their categories. Proportionate random sampling was used to select particular schools for study. Categories with only one school were purposively selected for study. The questionnaire and observational schedule were used in data collection. Expert knowledge from my supervisors was indispensable in determining the validity of the instruments. A pilot study helped in determining reliability of the instruments. Descriptive statistics were used for final analysis of the collected data. The final findings showed that schools with extensive assets enjoyed higher income than schools with fewer assets. It was further established that some head teachers could not account for income accrued from use of school assets. Students from poor backgrounds used their free and holiday time to solicit for funds, which they used to supplement school fees requirements. It was recommended that schools should be more innovative and use assets to generate income. In-service training in real asset management and record keeping should be given to head teachers. Retrogressive laws that curtail head teachers' innovativeness should be abolished.

CHAPTER I

INTRODUCTION

1.0 Background to the study

The place of education in the development process of any country cannot be underestimated. This is due to the strong belief that the level of education of a people has a great bearing on the socio-economic development of the country. Past studies have shown that there is a relationship between poverty levels and the educational level of household heads. Household heads with no education report highest incidences of poverty in both rural and urban areas. Poverty levels generally decrease as the household heads' level of education increases. (Republic of Kenya, 2001).

Many nations in Africa heavily invested in education after independence, making the proportion of the Gross National Product (GNP) allocation to education rise on average from 2.3 percent in 1960 to 4.5 percent in 1984 (Gravenir, 1991: 2). The rate of expansion of this sector was very impressive with the number of students in all African educational institutions at all levels increasing five times to about 63 million in 1983. Enrolments increased by 9 percent during the same period as the gross enrolment ratio at primary level rose from 36 percent to 75 percent. The tertiary level recorded an enrolment of 437,000 students in 1983 from a mere 21,000 in 1963.

This rapid growth has not however been sustainable due to the current economic decline. Many African countries have been forced to cut down on public spending, especially on education. For instance, public spending on education in Africa dropped from \$10 billion

in 1980 to \$8.9 billion in 1983 (World Bank, 1988). These fundamental facts sharply constrained the options open to policy makers and had serious implications for African education.

Kenya has not been exempted from the pressures facing the rest of Africa. Education in Kenya has been exerting a lot of pressure on the national budget due to its rapid growth. The number of educational institutions has steadily been growing as depicted in Table 1.1.

Table 1.1: Number of Educational Institutions by Category, 2002-2006

Category		Year				
		2002	2003	2004	2005	2006
Pre-Primary		28279	29455	31879	32043	33121
Primary	Public	17683	17697	17804	17807	17946
	Private	1441	1857	1839	1946	2283
	Total	19124	19554	19643	19753	20229
Secondary	Public	3247	3583	3552	3621	3646
	Private	440	490	490	573	569
	Total	3687	4073	4042	4194	4215
Colleges	Public	29	30	30	30	30
	Private	3	3	3	3	3
	Total	32	33	33	33	33
Universities	Private	6	6	7	7	7
	Public	13	17	17	17	17
	Total	19	23	24	24	24
Grant	Total	51141	53137	55621	56047	57622

Source: Economic Survey, 2007: 44

Key: * - Provisional

+ - Includes Kenya Technical Teachers Colleges.

The enrolments have also been rising as shown in Table 1.2:

Table 1.2: Enrolments by Level and Gender, 2002-2006

Year	Primary			Secondary		
	Male	Female	Total	Male	Female	Total
2002	3,074,000	2,988,900	6,062,900	411,777	369,824	778,601
2003	3,674,400	3,485,100	7,159,500	462,750	419,763	882,513
2004	3,815,500	3,579,200	7,394,700	490,506	435,644	928,150
2005	3,902,600	3,688,800	7,591,400	494,157	439,992	934,149
2006	3,896,600	3,735,600	7,632,200	564,072	484,008	1030080

Source: Economic Survey, 2007: 48.

Tables 1 and 2 indicate that there has been a rapid growth of the education sector in the recent past. This rapid growth has however not been met by a proportionate increase in resources available. The zeal that characterized many nations at independence to massively invest in education soon waned off due to high costs. The available resources from the government could not equitably be distributed to all sectors for maximum development. Many sectors, notably education had to seek involvement of other partners in meeting its financial requirements. In Kenya, there was an already felt need of discovering new or improving old ways of raising money. The first ever education commission in independent Kenya noted that:

There is a need of transferring the burden of fees from parents to the Community as a whole. This will be possible

through discovering new or improving old ways of raising money from the community.

(Republic of Kenya: 1964:8)

At independence, the main contributor to education was the government through public revenue. However, this does not mean that education was absolutely free. There were several hidden costs, like uniform that still needed to be met by households. The inception of the Cost Sharing policy made households' responsibility even more gigantic. Households were required to provide all the physical facilities in schools and pay the subordinate staff. This was economically working down on them due to their meagre resources (Ayako *et al*, 2000). There was need for more stakeholders' involvement in financing public schools.

Of all the stakeholders to public school financing, the school establishment has not been maximally exploited as a source of supplementing income of the secondary education. The Kenya Presidential Working Party on Education and Manpower for the next decade and beyond was mandated to:

Recommend ways and means of improving quality of education in all public, harambee and private institutions. This is to include strategies for more efficient use of existing human, physical and fiscal resources, the production of all the basic learning and teaching resources and proper administration, management and supervision in all educational and training institutions.
(Republic of Kenya, 1988: vii)

This was out of the expressed concern by the Government over the rising cost of education and the constraints it was causing in providing adequate finances to other sectors of the economy. Consistent with its commitment to invest in human capital

development and fulfilment of the Millennium Development Goals (MDGs), the government increased resource allocation to the social sector, particularly to education and health. The budgetary allocation to social services increased by 16.5% from 126.7 billion in 2005/2006 to Ksh. 147.6 billion in 2006/2007. The gross total allocation to the Ministry of Education increased by 71.3% from 64.1 billion in 2002/03 to 109.8 billion in 2006/07. This was so, notwithstanding the fact that the education sector was comparatively enjoying a greater share of the public revenue than other sectors as shown in Table 1.3.

Table 1.3: Central Government Expenditure on Social Services, 2002-2007 (Ksh. Million).

Recurrent:	2002/03	2003/04	2004/05	2005/06	2006/07
Ministry of Education	61557.82	72410.54	80239.91	88357.51	97867.15
Min. of Sci. & Tech. ***	Nil	Nil	Nil	Nil	1453.27
Ministry of Health+	14448.49	16004.71	17605.18	19000.00	22324.00
Ministry of Labour...	1464.76	1483.12	779.09	891.00	910.24
Ministry of H/Affairs...	5234.74	5992.32	1478.56	2000.00	2234.25
Total	82705.81	95890.69	100102.74	110248.51	124788.91
Development:					

Ministry of Education	2547.59	4314.24	4771.47	4002.84	10020.79
Min. of Sci. & Tech.***	Nil	Nil	Nil	Nil	324.34
Ministry of Health+	4893.66	5115.54	7803.91	9943.17	9832.24
Ministry of Labour...	389.23	297.40	466.53	194.00	201.12
Ministry of H/Affairs...	1126.66	442.33	446.90	2307.30	2410.34
Total	8957.14	10169.51	13488.81	16447.32	22788.83
Grand Total	91662.95	106060.2	113591.55	126695.83	147577.74

Source: Economic Survey, 2007: 34

KEY:

* Provisional

** Estimates including supplementaries

*** Expenditure includes that on Harambee Institutes of Technology and Youth Polytechniques currently under the Ministry of Labour

+ Expenditure includes that on KEMRI KETRI formerly in the Ministry of Research, Science and Technology.

The education sector has been receiving a greater share of the public resource allocation. However, this has not been enough due to its rapid growth (Achola, 1988: 33-34). It is therefore vital to review ways of securing additional funds for education in Kenya in view of the fact that there is a proportional limit of allocation from the budget to education beyond which the government cannot go for reasons of maintaining sectoral equilibrium (Gravenir, 1991).

There have been frantic efforts by the government to cut down on recurrent expenditure on formal education under the Ministry of Education to less than 30 percent (Republic of Kenya; 1999). The difference in terms of the ministry's monetary requirements is to be realised through cost-sharing and in the employment of more cost-effective measures in the use of educational resources. Under such a dichotomy, it calls upon educational institutions, especially secondary schools to establish a means of broadening their resource base to avoid transferring the whole burden to parents. In the recent past, many students have had to drop out of school due to failure to pay fees. For example, only 42 percent of the Kenya Certificate of Primary Education (KCPE) candidates in Central Province, 52 percent in Rift Valley, 44 percent in Nairobi, 45 Percent in Nyanza and 51 percent in Western Province proceed to secondary school; the main reason among others being lack of school fees (Daily Nation, 15th January 2001:14-15). At the Secondary school level, school heads still defy government guidelines on the level of fees to be charged. The cost of education is rising beyond reach, (The Standard 31st March 2010 pp 26-27). This is happening amidst government commitment to subsidise learning at this level.

The secondary school level though in more need does not receive equitable distribution of the public funds compared to other levels of education. With an increase of 11.1 % in enrolment from 934,100 in 2005 to 1,038,100 in 2006, the Secondary level is only second to the Primary level of education. The expenditure by the ministry of education on its various departments is reflected in 1.4 table.

Table 1.4: Expenditure by the Ministry of Education 2002/03 – 2006/07- (Ksh. Million)

Recurrent:	2002/03	2004/05	2005/06	2006/07
General Adm'	49051.57	55776.74	64139.32	72947.86
Pre-primary	5.22	5.51	57.00	50.45
Primary	3321.65	5966.52	7148.58	7746.53
Secondary	667.88	945.42	2893.70	1018.98
Tech. Educ	889.94	1171.40	1291.09	2819.00
Teacher Edu.	144.29	192.83	177.72	144.87
Special Edu.	121.39	175.13	193.14	353.13
Polytech. Edu	342.73	466.01	571.72	567.99
Higher Educ.	6795.74	7470.08	1885.24	14158.61
Miscellaneous	217.4	240.9	Nil	Nil
Sub-total	61557.81	72410.54	88357.51	99806.41
Development:				
General Adm'	1893.70	954.99	1705.04	2630.13
Pre-primary	197.52	362.55	Nil	Nil
Primary	26.00	2214.10	1311.60	6424.16
Secondary	52.24	151.9	170	170
Techn. Edu.	Nil	4.19	185	85
Teacher Edu.	6.09	155.12	143.5	50
Special Edu.	Nil	Nil	Nil	Nil
Poly Educ.	Nil	Nil	Nil	Nil
Higher Educ.	372.03	471.4	487.7	661.50
Sub-total	2547.58	4314.25	4002.84	10020.79
Grant total	64105.39	76724.79	92360.35	109827.20

Source: Economic Survey 2007: 38

The extra financial needs cannot be met through the budgetary allocations, hence the timely mandate to the Totally Integrated Quality Education and Training team (TIQET),

otherwise referred to as The Koech Commission, (Republic of Kenya 999), to prepare the Kenyan society to face the challenges of the 21st century and the 3rd millennium. One of the main challenges in this century entails the use of available physical resources for maximum returns. Institutions of learning have a major part to play in generation of the extra funds needed for their smooth running. The possibility of raising further funds for education from parents is already diminishing rapidly. The prevailing situation is that most parents and guardians are already overburdened with school-related expenses for their dependants (Achola, 1988:34). New sources of education financing should be found to maintain, let alone improve current education enrolments and quality (ibid: 34). Generation of supplementary income by use of school assets seems indispensable in helping realize this.

1.1 Statement of the problem

Although the government is committed to provision of quality education, her budgetary resources have been overstretched. This has necessitated shifting of much of the responsibility of educational financing in public school education to beneficiaries through school fees. Most of these beneficiaries may not be able to afford increased fees, yet the secondary school education still requires a lot of finances to enhance access, quality and relevance of this sub sector.

There is need, therefore, of bridging the resource gap between the schools, on the one hand, and the government and parents, on the other. Since parents are not able, under the prevailing economic atmosphere, to sustain their children in school at a high cost, and

given the 1948 United Nations declaration of education as a human right (Article 26 of the U.N declaration), there is every reason to pursue other avenues of generating supplementary income for the secondary school education. This would help keep the parental cost of education at manageable levels. This study was therefore relevant in exploiting the potential of the school assets in generating supplementary income for secondary schools.

1.2 Purpose of the study

The purpose of this study was to investigate how the various school assets in public secondary schools in Nairobi Province have been used to generate funds that can help supplement incomes in order to enhance access, quality and relevance of education at this level.

1.3 Objectives of the Study

This study sought to investigate the use of school assets in supplementing incomes for secondary education. The specific objectives were to:

- i. Identify the existing secondary school assets in Nairobi Province and how they are used in generation of income.
- ii. To establish the constraints facing the various schools in their use of assets in generation of supplementary incomes, and propose the probable remedial actions.
- iii. To examine the responsiveness of various school heads in initiating income generating projects by use of available assets

- iv. To determine the amount of income accrued by use of assets and how this affects the level of school fees charged.

1.4 Research Questions

The following research questions guided the exercise:

- i. What are the available secondary school assets and how are they used?
- ii. What are the constraints facing various schools in initiating income generating activities by use of available assets and how can the said constraints be minimised?
- iii. How does supplementary income generation affect the level of academic performance in schools?
- iv. How prepared are the various school heads in initiating projects for generation of supplementary school incomes by use of the school assets?
- v. What is the level of income generated from use of school assets and how does this affect the level of school fees charged?

1.5 Significance of the study

With the rapid growth of the education sector in Kenya, it becomes challenging to the government to wholesomely bear the burden of financing education. This, coupled with the low standards of living among a majority of the population compromises on the level of financing that secondary schools can access from households.

The results to this study were therefore significant in providing information that would guide education policy makers and planners on how secondary schools can be run more

productively. These results would contribute a body of knowledge that could guide head teachers on their mode of action in order to achieve maximum use of resources. These results would also guide school administrators in broadening their resource base to avoid transferring the whole cost of education financing to parents through increased school fees, since this could negatively affect enrolment and graduation rates.

1.6 Limitations to the study

This study was limited in terms of money, effort and time available; therefore a large area was not covered. The study was done in an urban setting, thus rendering the findings readily ungeneralizable in a purely rural setting. The return rate on the head teachers' questionnaires was low. Most of the head teachers were not generous with information regarding income accrued by use of school assets. It was therefore hard to compute quantitative correlations between the school income and performance.

1.7 Assumptions to the study

This study assumed that:

- i. Schools could meet most of their needs through the proceeds accruing from use of their assets.
- ii. There are several assets in secondary schools that are not utilized for economic returns.
- iii. With more revenue from alternative sources schools would not need to charge high fees.

- iv. School managers are willing to employ cost-effective initiatives in the use of school assets.
- v. There are periods of the school day and year when school assets are unutilized.

1.8 Theoretical Framework.

This study was based on the fact that school assets, relevantly and fully used, can generate income that can be used to cut down on the otherwise rising private and social cost of education. The study was based on the optimisation theory, which operates on the basis of accruing maximum returns at a very minimum cost (Mukras 1986).

According to Lipsey (1992:276), non-maximization in a firm may be as a result of ignorance or choice. This could also be true of the education sector. Although talks of free secondary education are welcome, it is obvious that the current economic recession can not accommodate such expenditure. Donor funding on the other hand is not a permanent source of income hence cannot be sustainable in the long run. The financial constraints facing the education sector may be well managed if the school physical resources are exploited for income generation. This would help realize the otherwise dear goal of good performance and access of school assets at a lower cost, thus, use the assets to generate the needed school income.

1.9 Conceptual Framework

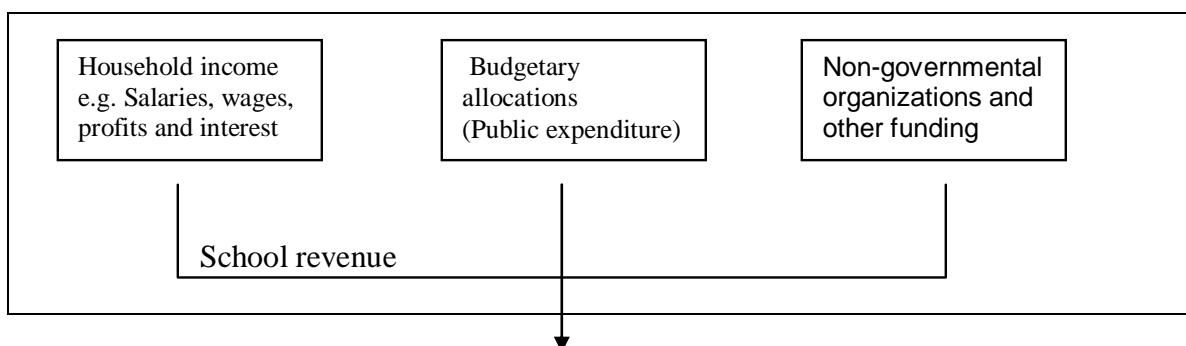
The conceptual framework of this study is derived from the optimisation theory. The optimum use of the available assets in an educational institution will enhance to a great

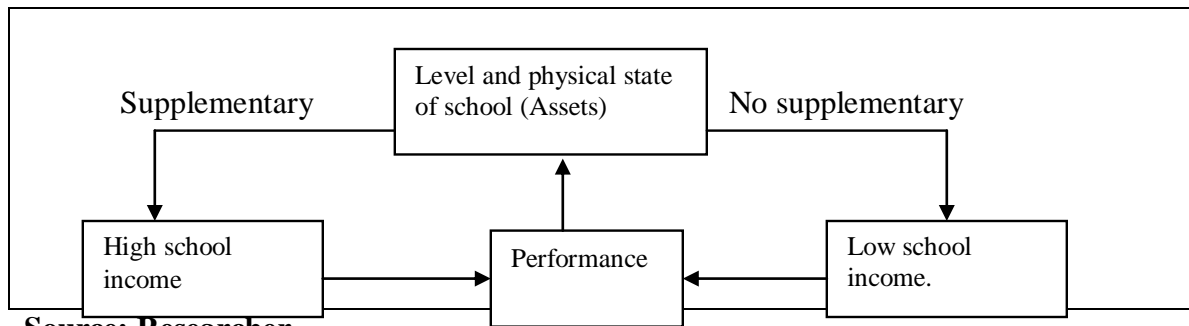
extent the financial income of the school. This will lower the school's dependence on the government, through budgetary allocations, and households, through fee payment. With such supplementary sources of income, school fees will not be abnormally increased. This will encourage more parents to send their children to school hence increasing the enrolment rate. Schools will also be able to access most of the needed instructional facilities and equipment out of the income so realised. This will positively affect the level of academic performance.

The opposite will be true in the absence of supplementary financial resources. There will be an over dependence on parents for financing the school budget. This will lead to increase in school fees, which will discourage parents from investing in education hence lowering the rate of enrolment. The academic performance will also be negatively affected, as most of the instructional facilities will not be available.

Low fee charges may lead to increased enrolments which may help the school stabilise financially. However, it is also possible that by charging high fees, more assets are acquired. This obtains where a school has stabilised to a point where the social-economical forces have no effect on it. This is demonstrated in figure 1.1.

Figure 1.1: Effect of use of assets on school income





Source: Researcher

As indicated in figure 1.1, since the educational allocation from the national budget is limited, other players have emerged to help support the education sector. This is due to competing attention for funding from other public sectors. Strict implementation of the government policy would affect the level of school fees paid at the secondary school level. This would in turn affect the day to day running of the school and curtail it from accessing the required instructional materials. This is because many school head teachers consider it impossible to run the schools and meet all the required obligations based on the government recommended annual fee levels of Ksh. 26,900, Ksh. 22,500 and Ksh. 19,000 for National, Provincial and District schools respectively (The Standard 31st March 2010, pp 26, 27).

With such limits, some schools may opt to raise school fees. This may affect the enrolment and graduation rates since some parents may not be able to afford the increased fees. This would result into an ineffective and inefficient school establishment. The performance by some students, especially those who may have been struggling to pay fees could be low, thus negatively affecting the overall school performance.

On the contrary, supplementary income acquired by the school through use of the available assets could help broaden the school resource base. This could positively affect

the enrolments and graduation rates. Most students would therefore not need to be sent home due to fees. The fees charged would be maintained at a reasonable level. Due to the conducive learning environment, many students would be able to perform well in their examinations hence raising the overall school performance.

1.10 Operational Definition of Terms

Asset:

An economic resource. Anything tangible or intangible that is capable of being owned or controlled to produce value. For the sake of this study an asset is a fixed tangible economic resource owned or controlled to produce value.

Development Expenditure:

Expenditure incurred or used on capital goods i.e. items that last more than two years, e.g. land and buildings.

Economic activity:

Any economic activity organized and propounded by the school (other than the traditional ones) for raising additional funds.

Enrolment Rate:

The ratio of the total number of pupils enrolled at a particular level or grade to the population (the total number of the pupils in that age bracket).

Fixed Asset:

Also referred to as PPE (property, plant and equipment). These are purchased for continued and long term use in earning profit in a business and include land, buildings, machinery, furniture and tools.

Harambee Schools:

Schools that are fully run and funded by the local community through fund raising initiatives.

Income:

For the sake of this study, income is used to refer to the net-profit, that is, what remains of revenue after expenses have been subtracted.

Recurrent Expenditure:

Expenditure that keeps repeating itself every year i.e. incurred every financial year and entails salaries and consumables like chalk, exercise books etc.

School Asset:

Any school property that can be used for income generation (other than the normal instructional purpose), without jeopardizing the school's programme, goals and smooth running.

Secondary Education:

Education received after eight years of primary education and takes four years, within the 8-4-4 system of education in Kenya.

Supplementary income:

Additional income accrued outside the traditional one (school fees).

Traditional Sources:

Finances to the school accruing either from the government/donors, community or parents through school fees.

CHAPTER II

LITERATURE REVIEW

2.0 Introduction

This chapter was divided into three parts. Part one discussed the general trend of education costs at global level, while part two looked into the use of school assets as a supplementary source for financing education. Part three addressed the use of school assets as a source of financing education in Kenya, with special reference to secondary education.

2.1 Trends in education costs.

The cost of education world over has been on the rise since the 1970s. This has been as a result of the “oil shock”, among other reasons. The “oil shock” increased the indebtedness of oil importing countries as petroleum and petrochemical products increased (Olembo & Harold, 1992). However this rise in the cost of education did not come as a surprise as Coombs and Hallack, (1972:51) had foretold it in these words:

In the coming years education systems everywhere will find themselves increasingly squeezed between resource scarcities and rising unit costs, thus they must search for supplementary sources of revenue and find ways of improving internal efficiency.

In so asserting Coombs and Hallack, (1972) saw a case where the demand for education would surpass the available resource base which, at the time was mainly the government. This is confirmed by Ayako, W, Nzomo J and Monyoncho, J. (2000) who established that after independence, many governments took over financing of education with parents left with provision of uniform only. His (Coombs’ et al 1972) prediction, coming in 1972, one year before the oil shock, shows that this (resource scarcity) trend had already set in at whatever cost. Coombs et al (1972) went ahead to suggest some ways that could be used to improve or alter the trend in educational financing. This included introduction of modern technologies and use of facilities more fully. It is however regrettable that several years down the line, some institutions are yet to come to terms with these invaluable tenets (Abagi, 2000). This study is vital in filling the gap between such knowledge and the implementation process.

During a human rights committee meeting in Nairobi, the high cost of education was found to be making it increasingly difficult for a large proportion of the countries' population, in Africa to access education. The situation was worrying and urgent steps needed to be taken to reverse the trend since deprivation of enjoyment of the right to education constitutes violation of human rights (Kenya Times, 31st July 2001, pp. 14). It is obvious however that as much as education is a human right, it is not possible to provide it freely. There is urgent need to identify alternative means through which costs can be met and not evaded. With reduction in funding from mainstream sources, and with a desire to maintain or increase both quality and quantity of education, it becomes important to seek other ways of addressing this need. The utilization of the available assets for economic returns seems to bear much fruits both in the short and long term.

Outside Africa, Vietnam is an example of a nation that faced such economic stringency that it had to introduce fees for post-primary level, (World Bank, 1993). However, this increase had a negative effect on poor families as most of their children were barred from gaining access to secondary education. By introducing high fees to fill the financial resource gap, the country was negatively affecting the purchasing power of her people. Education being a quasi-good, and given the externalities that accrue beyond the private individual level, it is necessary that a country intervenes in its provision so that no deserving individual is denied this right. By raising fees, many deserving individuals are denied this opportunity. On the other hand, it is difficult for a country to wholesomely bear this burden. This leaves the only alternative as involving the institutions of learning themselves in income generation through the use of available assets.

Peru government spends about 3% of its Gross Domestic Product (GDP) to support education through public expenditure, (World Bank, 2007). Although its personnel and recurrent expenditure is too high, the education expenditure as a proportion of GDP has essentially remained static at 3%. However, while enrolment is growing at only 0.2% per year total expenditure per student is growing at 5% per year. Cumulative drop out rate at secondary school has increased to 35% mainly due to poverty, (ibid). A static public expenditure on education would mean increase in alternative sources of school finance. Without these alternative sources, the only viable option would be increase in school fees hence increase in drop out rates as it obtains in the case of Peru.

Poor parents in China were finding it increasingly difficult to send their children to school, making many parents to doubt the value of education (World Bank, 1991). With a major policy shift in 1985, China fundamentally transformed its education financing structure from a centralized system with a narrow revenue base to a decentralized system with a diversified revenue base. Gropello (2006: 136) notes that:

Decentralization charged local governments with education provision, administration and financing. Resource diversification strategies involved both the broadening of the public revenue base through collection of surcharges and levies and mobilization of private resources at the school level through local and parental contribution; income generating activities and school fees. As a result, off budgeted funds increased by 27.5%.

When parents lack confidence in the value of schooling, they make no initiative to keep their children in school. In order to gain this confidence, costs have to be kept within the

means and abilities of the parents. This reasonable state can only be attained if other sources of revenue for schools are established. This is because most low-income countries are simply unable to meet all the needs of public schools (Bray, 1986). The case of China confirms that supplementary financing can accrue at the local and school level by use of available assets. This would in turn help to keep the school fees at manageable levels especially for the economically challenged public.

World Bank, (1993) observed that unit costs of secondary education in the Caribbean tended to be twice those of primary education, while in Jamaica, secondary schools unit costs were three times greater than for all other levels. This has negatively affected the purchase of education in this region and rendered many institutions in poor physical state. The total shift of education costs to parents has been the major reason behind this. Hiking fees to address economic imbalance is a sign of lack of initiative in school administration, going for the easy way out. In light of the implication of such a move, more pragmatic initiatives need to be taken among which is the use of available assets for more economic returns. There are vast potentials in the available school assets whose exploitation needs to be determined.

Kenya, on her part introduced the cost-sharing strategy to address the issue of financing education. In this case, households were required to meet 95 percent of the schools' recurrent expenditure (Republic of Kenya, 1999). With the high level of poverty, most parents have failed to meet this obligation. Enrolment rates, especially in secondary schools have been decreasing since 1990s (Abagi, 2000). The rate declined from 29.4

percent in 1990 to 23.2 percent in 1998. Since GER is a measure of access to education; the low GER in secondary school is an indication of the limited access of school age children to secondary level, which could be attributed to the increase in cost. Currently, significant numbers of primary school graduates in many developing countries do not make the transition to the secondary level. In 2001 for example, the average gross enrolment ratio at secondary school in developing countries was only 57%, due to high cost, (UNESCO: 2005). This high cost provides for an initiative to look into alternative resource for the much-needed educational finances.

2.2 Use of school assets as a source of finance

It is not unusual that many quasi-public uses are made of public school facilities. According to Nolte, (1969) this trend seem to be favoured, provided that there is no interference with the ongoing programme of the school and provided further that once the board has decided to permit use of the buildings by one group, it does so for all groups regardless of their affiliations or beliefs.

This seems to suggest that after having decided to allow public use of the school buildings, the board may not set up unconstitutional bars to those whose beliefs and doctrines it does not approve. In Nolte's experience, the school boards have a major hand in determining the use of the school assets. It also points out to the expediency of use of school assets for supplementing income since there is need for the various governments to ensure access to education for all her citizens. Infact, as Blaug (1968) argues, whereas economic benefits of education such as higher earnings are largely personal and

indivisible, not all these benefits are confined to those who have paid for them nor is it possible to exclude the less educated from the spill over benefits of education.

This means that every effort has to be made by every government to expose her citizens to some education in order to improve on both the private and social benefits. There is need to devise supplementary means of financing education so that households are not financially overstretched through increased fees. There is no doubt that the major bottleneck to access to education is in monetary terms. Various governments have therefore devised and embraced different strategies in addressing this challenge.

In Britain, owing to the prevailing economic recession, public education, which had been solely financed by the government, is now a joint concern of government, industry, parents and the education systems themselves. Universities have been encouraged to seek alternative sources including offering services such as conference facilities, holiday accommodation and special part-time industrial and commercial courses. This is done in order for these institutions to relieve the government off some of the burden of financing education (Riechi, 1993). Riechi also noted that several learning institutions in Kenya had imposing assets like halls and classes whose use was quite erratic. The case of Britain shows that it is possible to use these assets more fully for economic returns. Today only 5 percent of university education funds come from the government in Britain (Ibid: 34). The secondary school in Kenya, especially in urban areas has enough assets like buildings, which can be rented out at a fee. It is also possible to establish commercial and

industrial courses operated on professional standards for supplementing the current resource base.

Ziderman and Albrecht, (1991:5) encourages school establishments to seek alternative sources of finance and be more innovative. He notes that:

In order for institutions to carry out their duties efficiently and effectively, they need to be innovative to redeploy their resources to respond to market demands. Autonomy should be furthered in many instances with regard to enrolment, internal allocations and ability to seek additional income...therefore institutions should be encouraged to seek funding from alternative sources.

In a study on financing education in developing countries, World Bank (1986) insisted that cost-recovery measures would generate substantial revenues without reducing enrolment. This does not mean that costs are evaded. Instead alternative aspects of financing education are developed so that households do not 'burst' under the weight of this cost. This would in turn encourage more families to send their children to school. Both Ziderman (1991) and World Bank (1986) therefore clearly qualified the study.

Achola and Kaluba, (1989:33) explained the rationale for schools' production units in Zambia in the following words:

Specifically schools were expected to use production units to meet most of food requirements and to generate funds for capital and maintenance of educational facilities.

The main production units in this case include land, labour, capital and entrepreneur. Most of the activities are geared towards using land as a production unit than other assets

like buildings and equipment. Unlike in Zambia where schools are expected to come up with their production efforts, there is not much that is required from the secondary school in Kenya as far as generation of supplementary income is concerned. It is no wonder that a number of school heads find it unrealistic to abide by government policy on school fees as they see this as a plan to frustrate their management efforts. There is therefore need for a clear policy as to what is expected of them in terms of mobilization of funds. This study was hence timely as a guide to policy formulation.

Schools in Ethiopia seem to be moving in the right direction according to World Bank (1986). They use their resources intensively. Many of the schools produce their own teaching aids as well as some crafts and garden crops for local sale. They use internally generated sources to supplement government and community efforts. As they produce enough resources to meet the cost of such facilities, the households are in effect relieved of such expenditure. This in turn ensures a steady enrolment and survival rate as parents find it reasonable to keep children in school. This can also be done in Kenya education sector with great success.

In examining alternative sources of financing higher education in Ghana, Lamptey (1988:37), made a case study of the University of Ghana and confirmed that:

A number of service units have been commercialized. These include the university bakery, university catering services, production of coffins, printing of building plans, commercial block making and manufacture of household furniture.

Most of the urban secondary schools have enough assets, which, on borrowing leaf from the University of Ghana, can register impressive results. The workshops and laboratories available can be maximally exploited for monetary returns. Household furniture and metal work can be made and sold for some money while the home science class can prepare and sell food to the public especially on weekends or holidays. Such a class could develop an outside catering group that can render such services to the community at a cost. These are avenues that have not been exploited. With such modification, which was the aim of this study, the school-resource base can be enlarged. Bennet (1975:150) noted that:

Of all resources that exist in developing countries, there is probably a lower level of utilization of school buildings than virtually any facility. This is because schools only operate six or seven hours a day and for about 180 days in a year. During the rest of the time, occasional extra-curricular activities take place but normally the school is locked up and the teachers on holiday.

He submits that there are many ways of increasing the utilization of physical facilities, one of which is to enroll a second shift after the first one has finished studying. Though addressing a case of the Thai education system, Bennet's ideals are also relevant to the Kenyan system. In using a second shift, no extra funds will be generated, since; all that will be received in fee payment will be used exhaustively for that purpose. There is need for an alternative strategy for mobilizing funds especially given the recent ban on holiday tuition in Kenya. This gives a vast opportunity for development of resource mobilization strategies by use of the available school assets.

World Bank (1993) confirms that the coverage, quality and effectiveness of education provision depend largely on both the level and the use of resources. Additional resources have to be raised outside the government budget. It is clear that the solution to school financial dilemma will not come from outside but rather from within the educational institutions themselves. This is the gap that has been constructively filled through this study.

2.3 Use of school assets for supplementing incomes in Kenya

The need for soliciting alternative resources for financing education seems more urgent now than ever. Abagi and Olweya (1999:5) observed that:

Based on past experiences, and the futurology of policy analysis and research, the future of education in Kenya looks gloomy. If one takes known facts and trends in macroeconomics and in education and projects over a period of 15 years to the year 2015, the outcome is not reassuring. If the government and other partners in the development of education merely carry on as in the past at present, rhetoric good plans in paper without implementation programmes, good enhancing projects without accountability and efficiency, the impact will be devastating. Education and other social services will be hit hardest.

In the past, good plans have failed because they have not been followed up with realistic implementation steps. Several targets have been set for achievement of universal primary education, but have passed unrealized. For such targets to be realized, steps to remove the barriers to such a course must be taken. The major barriers in this case relate to financial constraints. This is therefore an open call to the nation and partners in education financing to set up and accomplish past plans as they formulate policies that will help

alter the gloomy destiny that the education system seems to otherwise be bound. This may be realizable through use of alternative financial avenues. There is need for a change from the past status quo to implementation of programs to help realize set out goals.

In their study on Education Financing in Kenya, Njeru and Orodho, (2003) considered the challenges in implementation of the secondary school bursary scheme. Household expenditure on various secondary education related items indicated regional variations across the country with urban households spending larger proportions of their incomes on secondary education (approximately Ksh. 34,923 per child). Njeru and Orodho 2003:2 further noted that:

The current government policy on how schools should raise funds gives head teachers much leeway to decide on the type of educational levies to impose on the parents. Most of the levies are imposed and hiked regardless of the parents' ability to pay. Undemocratically 'stage managed' annual general meetings are held where decisions are forced on parents. In other cases some head teachers introduce prizes for best students with the actual motive of camouflaging their roles in financial mismanagement of school funds. These malpractices inflate education levies and costs, in effect locking poor students out of secondary education.

The study recommends that the Ministry of Education should monitor the effectiveness of indirect secondary school levies, like holiday and weekend tuition, mock examination fees and possibly abolish them if they do not significantly enhance performance. More importantly, the study (Njeru and Orodho 2003:4) further recommends that:

Schools should diversify their income generating activities, by making more use of such income sources as school farms and assets.

In pursuing the place of school assets in generation of the much needed alternative school financing, the current study not only responded to Njeru and Orodho's concerns but also helped sensitize the school heads on the need to embrace more transformational school financing strategies.

Wesonga (1996) carried out a study on how secondary schools can initiate supplementary sources of funds. He asserts that several schools suffer from insufficiency of funds, which hinder proper implementation of educational programmes. Many schools relied heavily on traditional sources of finance, which were also inadequate. The study limited itself to identifying economic activities that were existent in schools; without addressing the need for exploiting the school assets. Most of the economic activities identified were agricultural, practiced on the land, disregarding other major assets like automobiles, buildings and fields. These can be used with great positive results to supplement the other sources of income.

Ayako *et al.*, (2000) enlists alternative educational financing strategies as education levy, private sector participation, income generating schemes, creation of education trust funds, debt relief for education, and work-study programmes for students. Although some of these alternatives have far reaching effects, some of them offer superficial solutions. To implement an education tax for example, may be a great strain to the low income earner who is currently over taxed, unless it is selectively done. Introducing work study programme to secondary school level students may interfere with their learning.

Participation of the private sector on the other hand does not help lower education cost on the low income earners. The major solution is in making the institutions more self-reliant by use of assets for income generation. Educational institutions have to be run in a business-like manner with a view to enhancing efficiency and achieve value for money in acquiring services. Many schools, just like public universities initiate projects for the learning purpose with income generation as a secondary purpose (Riechi, 1993). Land has previously been used to grow crops as practicum for agricultural students but the proceeds from such investments have not been taken seriously in economic terms. This is because they are considered purely for teaching purposes. This has proved very expensive to parents who have to keep meeting these costs every year.

Olembo and Harold (1992) rightly observe that the present set up of our primary and secondary education does not provide room for sufficient practice by the students of skills being developed. However, although he feels that proper leadership in these schools will ensure that the skills being developed earn the schools the badly needed money, sound leadership alone may not bear much fruits. The policy setup in which a leader operates has a major impact on production. Leadership in the school set up need to have unlimited access to school assets and use them responsibly for maximum economic returns. This study was an initiative into deriving and formulating such a policy that will provide for maximum productivity of the school heads in their use of school assets.

The Koech Commission (Republic of Kenya, 1999:252) concurs that it is possible to increase outcomes in the education sector without increasing the share of government

expenditure on education by improving efficiency in the use of resources. To realize this, schools have to be active in generation of the extra funds needed through use of the available assets. Infact, as Griffins (1994:16), observes,

The years have passed when schools were snugly and safely financed through ministry grants; Nowadays the head teacher must be both a fundraiser and a public relations expert.

Time is ripe for institutions of learning to be economically self-reliant. The school assets stand out as dependable partners in this venture. This study was relevant in establishing the need of going beyond the teaching and learning purpose thus making the school capable of generating supplementary income by use of the readily available assets.

2.4 Summary

From the above literature review, it is clear that the need for supplementary income generation at the school level has been qualified. The current trend world over has been to supplement the school budget by establishing alternative income generation activities. This has largely been as a result of the increased indebttness of the oil importing countries, the increased cost of education and the diminishing level of the gross domestic product in most third world countries.

The options given, including using the students to do school manual work instead of hiring manual workers, increasing the use of buildings so that the school is open and operating throughout the year or using the school production units, which basically

include land and buildings to generate the alternative income, leaves out some important aspects of the supplementary income generation activities.

Equipments are bought for instructional purposes, but apart from the one lesson in a week that they are used for class, they remain idle in the store. Several school assets which could be used for income generation remain idle during weekends and over school holidays. Some of the alternative resource generation ventures have been done secondarily with the main purpose being instructional. No clear records have therefore been kept. This study was therefore very timely in filling the gap between the various recommendations made (Abagi and Olweya 1999; 5) and their implementation. The study encompassed all of the school assets.

CHAPTER III

METHODOLOGY

3.0 Introduction

This chapter described the methods used in fulfilment of the research objectives. The aspects discussed to realize this end included study location, research design, study population and study sample. The research instruments, their administration and determination of their reliability and validity were also discussed.

3.1 Study Location

This study was carried out within Nairobi Province. A similar study (Wesonga, 1996) in Kakamega District recommended a study in a more urban setting hence Nairobi. Nairobi Province is basically urban, comprising of the city centre and its suburbs.

Nairobi is the largest city in East Africa. Its population by the 1999 population and housing census stood at 2,143,254 persons, (Republic of Kenya, 1999). Of these, 1,153,828 were male while 989,426 were female, forming 649,420 households. Although another census was done in August 2009, the results have not been made public. Nairobi's current population census is however estimated at 3 million. The area of the province is 696 square kilometres with a density of 3079 persons per square kilometre. Nairobi's inter-censal growth rate has generally been stable; varying from 4.9 in 1969/79 census to 4.7 in 1979/89 and 4.8 for 1989/99. The province's large population provides a ready market for the services that may be provided by learning institutions.

3.2 Research Design

The study took a descriptive sample survey design of accessible population as it appears without manipulating it. A descriptive sample survey research attempts to collect data from members of a population in order to determine the current status of that population in respect to one or more variables. The researcher infers information about a population of interest based on the responses of a sample drawn from that population (Gay, 1992: 220).

3.3 Study Population

The study population comprised of all the public secondary schools in Nairobi Province. Nairobi Province has a total of 47 public secondary schools with 47 head teachers. Of these schools, five are National schools while 42 are Provincial/District schools. The enrolment stood at 23,040 students with 12,140 male and 10,900 female. The schools are distributed by category as shown.

Table 3.1: Distribution of Public Secondary Schools by Category

School Category	Number
Boys' Boarding	06
Boys' Day	11
Boys' Boarding/Day	01
Girls' Boarding	07
Girls' Day	10
Girls' Boarding/Day	01

Mixed Boarding	01
Mixed Day	10
Total	47

Source: Provincial Education Office, Nairobi.

3.4 Study Sample

The study sample consisted of 16 public secondary schools. Both purposive and random sampling techniques were used to realize a more representative sample. The schools were stratified according to their categories and proportionate random sampling technique used to identify the sample. The proportionate random index of 30 percent was used. To select the particular schools from these categories, simple balloting was used. The category with only one school was purposively selected. Head teachers of the schools under study formed the questionnaire respondents. The students' sample comprised of the form four classes of the schools under study. A representative index of 10% was used to select the student sample that was stratified by gender. 10% is the recommended index for descriptive research (Gay, 1992:137), hence for this study, given the large student population that had to be studied. It ensured a large enough sample on which generalizability could be based. This is summarized in Table 3.2.

Table 3.2: Study Sample of Public Secondary Schools in Nairobi Province:

School Category	No. of Schools	Percentage	Sample
Boys' Boarding	06	30	02
Boys' Day	11	30	03

Boys' Board/Day	01	100	01
Girls' Boarding	07	30	02
Girls' Day	10	30	03
Girls' Board/Day	01	100	01
Mixed Boarding	01	100	01
Mixed Day	10	30	03
Total	47	30	16

3.5 Research Instruments

The basic research instruments that were used in this study were the questionnaire and the observation schedule. Both of these descriptive research instruments are highly recommended in educational research. A questionnaire is a data collection instrument or schedule to be filled out by an informant and is mainly used in making status studies or surveys (Rummel, 1964: 112). In observation the status of a phenomenon is determined not by asking but observing. This allows for more objectivity in the research study.

3.5.1 The Questionnaire

There were two questionnaires. The first one was completed by the head teachers of the various secondary schools while the second one by a sample of the form four class students. From the head teachers, data regarding the financial state of the school and the general use of school assets was established. Information regarding limitation, if any, and the solution to the use of school assets for supplementing the school financial resource was gathered.

The students' questionnaire, on the other hand, gathered data regarding their economic background. This data was vital in assessing the constraints that households were facing

in meeting the secondary school education cost, hence the relevance of generating supplementary financial support for running of schools. This guided in making reasonable conclusions and recommendations regarding the place of alternative financing for secondary schools.

3.5.2 Observation Schedule

The observation form gathered information regarding available assets. Their condition was also observed to determine their viability in use for generation of supplementary financial resources. The form was completed by respective secondary school head teachers.

3.6 Piloting

The research instruments were piloted in three public secondary schools outside the study sample in Nairobi. Piloting ensures that instruments are stated clearly and have the same meaning to all respondents (Mugenda and Mugenda, 1999: 186).

During this time the researcher was also able to establish the time taken to administer the instruments. Relevant corrections were addressed before finally administering the instruments to the study sample. The pilot schools were purposively selected to have one boys' boarding, one girls' boarding and one mixed day schools. The selection was based on the limit in money, time and effort available.

3.7 Validity

The validity of the instruments was established through the various defenses and professional guidance from my supervisors and lecturers. Results of the pilot study also indicated that there were no misunderstood questions.

3.8 Reliability

To ascertain reliability, the instruments were tested during the pilot study done before the actual study. Reliability of scales was established by analysis of item variance through a system provided by Cronbach's Coefficient Alpha, which is a general form of the Kuder- Richardson (K-R)₂₀ formula given as:

$KR_{20} = \frac{(K)(S^2 - s^2)}{S^2(K - 1)}$. Where:

$$S^2(K - 1)$$

KR_{20} = Reliability coefficient of internal consistency

K = Number of items used to measure the concept

S^2 = Variance of all scores

s^2 = Variance of individual items

After computation of the coefficient, the reliability of the head teachers' questionnaire was found to be 0.965 while that of students was 0.77. These measures of reliability were found to be reliable.

3.9 Administration of the Instruments

The researcher visited and administered the research instruments to the various secondary school heads and students under study. The researcher first visited and familiarized himself with the schools before the research study period. The questionnaire was administered to the head teachers first before administering the students' questionnaire. The observation form was also completed by the head teacher although the researcher was observant to note any other relevant detail.

3.10 Method of Data Analysis

At the completion of the data collection exercise, data was analyzed using descriptive statistics and the Statistical Package for Social Sciences (SPSS). Descriptive statistics permit the researcher to meaningfully describe many scores with a small number of indices (Gay, 1992: 388). Moreover, they helped ease discussion of the study findings. The statistical package helped save on time and increase on the accuracy of the results (Mugenda and Mugenda, 1999:117). Frequencies were prepared for the question items from which percentages were computed and charts derived to ease discussion. Deductions were also made out of the prevailing observable situations which guided in drawing out recommendations. The data analysis guided the researcher in establishing the available school assets, the students' economic backgrounds, the barriers in using school assets to generate income and the head teachers' preparedness in employing income generation activities in respective schools.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter gave a systematic and comprehensive analysis of the data collected during the research study. The basic concern of the study was to establish the place of school assets in generation of supplementary income at the secondary school level.

The interpretation process was guided by the research questions of the study. 108 students successfully responded to the student questionnaire, out of the projected initial number of 160, giving a 67.5% representation. The head teachers' questionnaire, received 10 respondents out of the projected 16 representing 62.5% success. According to Barbie (1990), a response rate of over 50% constitutes adequate data for analysis. The response on the observational schedule was scanty as most of the head teachers were neither willing to allow the researcher access details nor complete the schedule to reflect the school assets. However nine responses were received, representing a 51.25% success. This chapter was therefore discussed under the following subheadings:

1. School backgrounds and existing assets
2. Levels of household incomes
3. Initiating income generation activities in schools
4. Constraints in use of school assets to generate income
5. Conclusion

4.1 School backgrounds and existing assets

A total of 16 secondary schools were targeted in the study. However, only 10 schools participated in the study. Of these, 2 were national, 5 provincial while 3 were district schools. There were 2 boys' day, 1 boys' boarding, 3 mixed day, 2 girls' day and 2 girls' boarding schools as reflected in Figure 4.1.

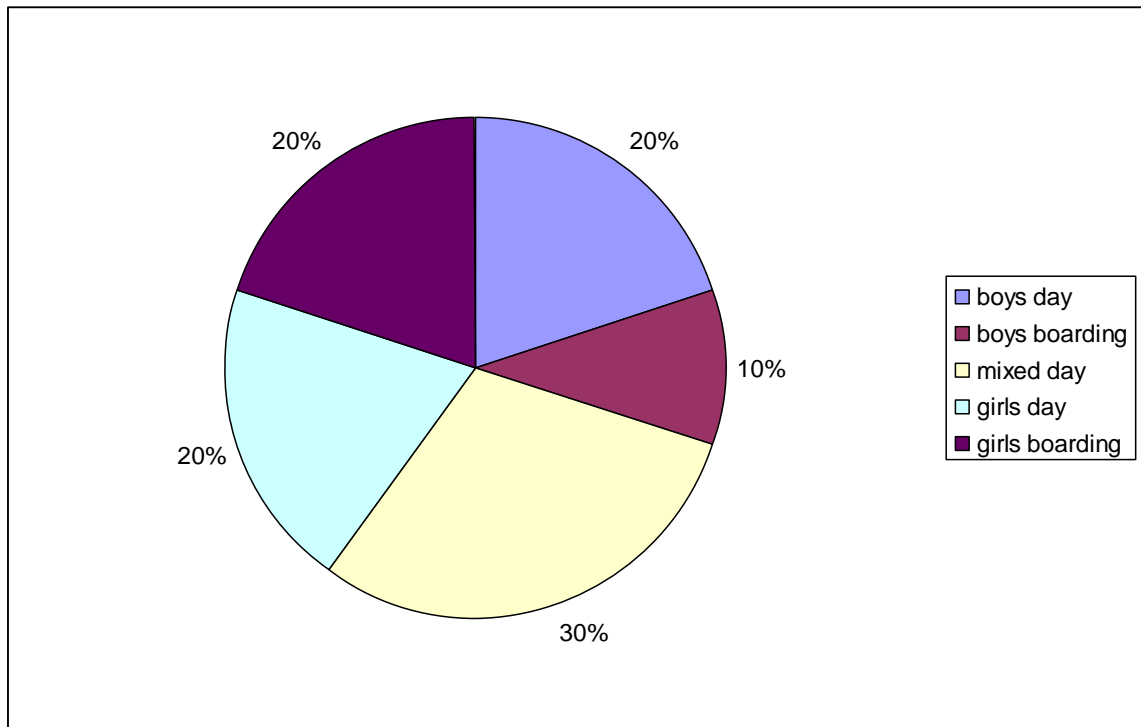


Figure 4.1: School Categories

All of the schools depended on school fees paid by parents to meet their financial needs. As was seen in the literature review, overdependence on parents through school fees for school sustenance was found very undesirable. With the increase in the cost of living, schools that solely depend on fees to run revert to increase of fees to meet the financial shortfall. This in turn results to increase in dropout rates due to inability by the low income parents to sustain their children in school. This can clearly be deduced from the level of school fees charged in the various sampled schools.

The level of school fees charged varied from one school to another. Two of the schools under study charged Ksh. 15,000 while three others charged between Ksh. 15,000 and Ksh. 20,000 per term. The other five schools charged fees above Ksh. 27,000 per term. This was far much beyond the government recommendation of Ksh. 26,900, Ksh. 22,500 and Ksh. 19,000 per year for National, Provincial/District Boarding and District day schools respectively, (The Standard 31st March 2010, pp 26). This confirmed that most of the schools were not abiding by the government guideline on the level of school fees to charge.

With introduction of secondary education subsidy, it was recommended that public day schools should be free and the boarding ones charge a maximum of Ksh. 18,627 annually. This has also gone un-attended to, (The Standard 31st March 2010, pp. 26). The head teachers could also not account for the Ksh. 10,265 subsidy given by the government. This was because, to most of the schools head teachers, the proposed guidelines could not enable them meet most of the school needs which were basically met through the school fees paid. Parents were also made to pay extra charges for development projects and other supplementary services.

The financial status of the schools was not adequate according to the school head teachers. Schools depended on school fees with no deliberate and elaborate plans for implementing income generation activities by use of the school assets. There were no supplementary financial resource bases. This was due to poor servicing of school fees by parents. In four of

the schools under study, less than 30% of the students had cleared payment of their school fees.

The survival rate among students was also affected. One head teacher observed that servicing of school fees was very poor. None of the head teachers surveyed reported that servicing of school fees was good in their schools. Half of the schools reported very poor to poor rates of fees servicing. This meant that half of the students had only paid up to half of the fees required, with some having paid less than a quarter of the fees required. The other half had recorded average fee servicing, implying that they had paid more than half of the fees required. Figure 4.2 reflects a general level of fee payment in selected schools.

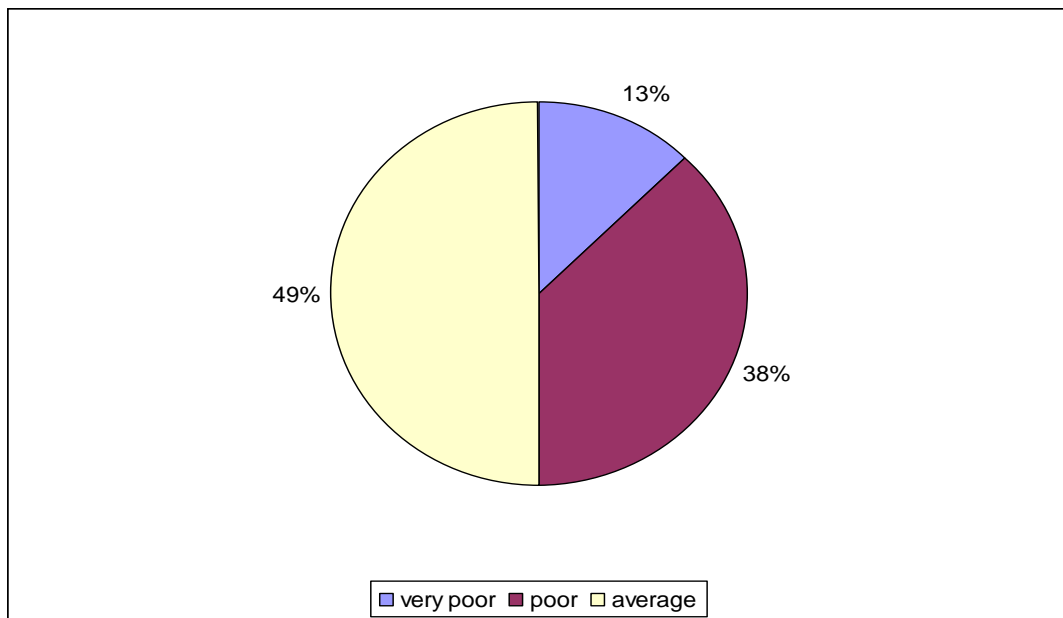


Figure 4.2: Level of School Fees Servicing

The level of fee servicing had its own repercussions, notably low survival rates. Students who could not clear their school fees arrears on time were sent away from school. Some of them dropped out or experienced long periods of absence from school, affecting their academic performances. This could have been avoided according to the school heads, if alternative or supplementary income was accruing to the school. Although the students would then not be allowed to access education freely, the school would be more accommodative and accept various fee payment plans as the students are kept in school. As one head teacher pointed out, schools were operating on a very tight budget which required avoidance of bad debts at every cost. Reasons for lapsing on fee payment just as for poor survival rates are presented in figure 4.3:

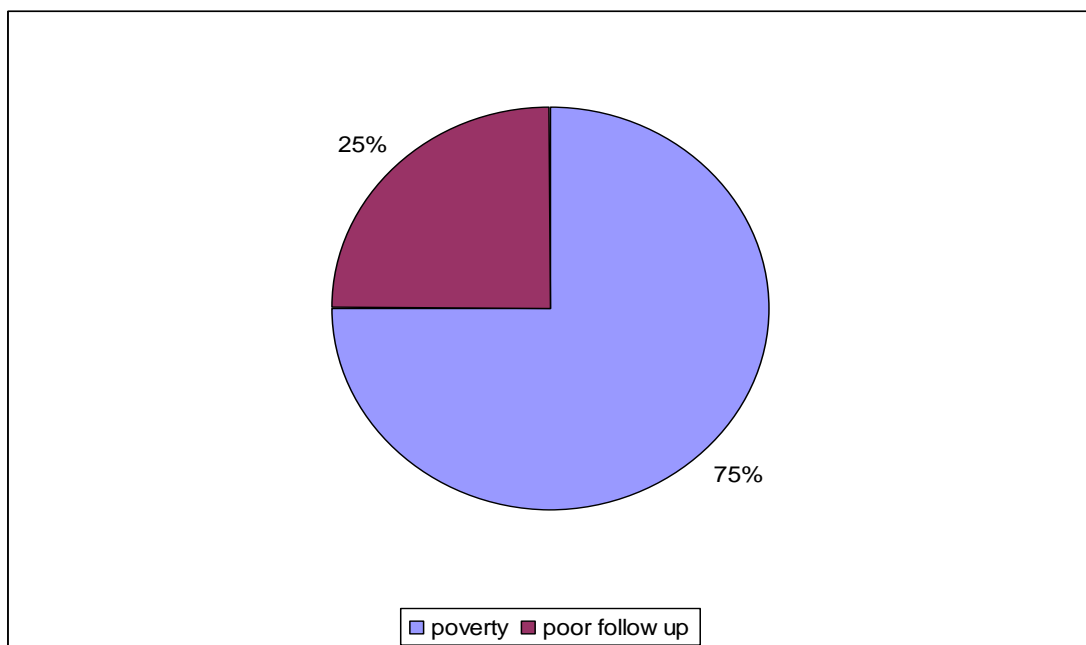


Figure 4.3: Reasons for Poor Fees Servicing

Although schools had up-to-date fee collection mechanisms, they still registered arrears from students. The main reason for this was poverty or lack of money among affected

students. Such students, according to another head teacher's confession, stayed away from school or even dropped out of school completely due to inability to clear the pending fees. Since fee payment pressure point was during exams and particularly the national exams, some students, having benefited from a previous term, left school to register in other schools or as private candidates. This proved cheaper to them than clearing the pending fees. By so doing, the fees arrears for the preceding term accumulated into bad debts.

All of the schools under study had a considerable level of asset base. Although six of the surveyed schools (60%) had over 5 acres of land, this resource was not optimally used. In one of the schools, the pitches and fields recorded high use. They were hired for weddings and other garden functions. With increase in preference for garden weddings and given the strategic location of the school, the fields were always booked over the weekends for weddings. This could be done without interfering with the school program as it had five playing grounds.

The school also grew crops for local consumption. With a good weather, most of the schools food needs were met locally through the farm produce. There were several buildings which housed classrooms besides the fields and pitches.

One of these schools hired out the school bus to the Kenya National Examination Council during the exam period to transport exam papers to various schools. Other than this, the facility remained idle in the store during weekends and holidays. During the school term, the bus was used to transport students to various sporting activities and trips which occurred

at an average of six times a term. It was also used to transport the school head teacher for meetings outside of the school. With good and routine use, this facility could be turned into an income generating activity so that it not only sustained itself but also earned the school the much needed supplementary income.

The available space could also be used to construct houses which could be rented out at a fee. This was not happening in the sampled schools. Five of the sampled schools also had assets in good working conditions. They were used for school activities and occasionally for community activities. It was however impossible to establish whether there was any monetary benefit from community use. With relevant training on financial accounting and change of policy to provide for schools involvement in generation of supplementary income, the school head teachers would be in a better position to, not only be good managers but fund raisers as well.

The good performance reflected in these schools, as the mean grade of C+ in the Kenya National Examination Council (KNEC) could also be attributed to availability of enough assets. These assets helped ease the learning process as the learning aids could easily be acquired by use of the existing facilities. These schools were also aggressive in soliciting funds through fund raisings and support from alumni. Parents suffered more during these times as they were given specific targets which they had to meet in funds, without which their children would also not be allowed in school. In any case the assumption of the head teacher or school was that if the school had to get any supplementary income or funds, it

was to come from somewhere, outside the school, which should not be the case. The school can be able to generate sufficient funds by use of available assets within the school.

Two of the schools under study were in deplorable conditions, going by the completed observation schedule. The classes were in poor physical state, grass thatched with mud walls and floors. The other assets indicated were an old duplicating machine and a playing ground which was shared between the high school and the primary school section. The performance of these schools was also not impressive. They both had a mean grade of D+. Completion of the questionnaire was therefore done with excitement in the hope that the researcher would help in funding the school projects.

Although the schools were in poor physical state, they were situated in strategic positions which could be exploited for the good of the school. Due to the poor physical state, the self image of the students was also low, and teachers de-motivated. According to the head teacher, the school did not expect many guests, even from the Ministry of Education as the school could not afford to 'fuel' their cars. Whereas the school expected help from without, true change would be registered if the available assets were mobilized for the good of the greater society.

Eight (8) out of the 10 respondents (80%) confirmed that they rented out school assets for financial gain. The other two, (20%) did not rent out, regardless of having the assets. There were more assets like automobile, electronic gadgets and equipment which were strictly used for instructional purposes. They therefore lay idle in the school during the

holidays and other non-school times. Although some head teachers feared that equipment could break down in case of much use, such fear would be eliminated once the equipment are put to use as they would generate enough funds not only to sustain themselves in case of breakdown but also to supplement the total school income. Six respondents (60%) confirmed that the available assets were not sufficient for the instructional purposes. Four of these confirmed that the lack of resources was due to lack of funds. With the noted asset base which could be put to reasonable use in income generation, there would be no deficiency in terms of the much needed funds and instructional resources.

4.2 Levels of household Incomes

The student population was evenly distributed regarding their birth order. From the completed students' questionnaire, it was established that 91 out of the 108 respondents (84 %) indicated that their parents were low income earners and small scale business people. This confirmed that parents, though anxious to have their children through school may not be able to sustain high fee increments. This was complicated by the presence of other siblings in other secondary schools where parents and guardians were paying over Ksh. 20,000 per student per term. The high rate of absenteeism showed that the affected students missed out on very crucial time that could have been spent in class. Some of the students were sent back home as soon as they got to school regardless of the amounts solicited as long as it was not the full fees required. The general findings are summarized in Table 4.1 and Figure 4.4;

Table 4.1: Have you ever been absent from school?

	Frequency	Percent
Yes	91	85
No	16	15
Total	107	100

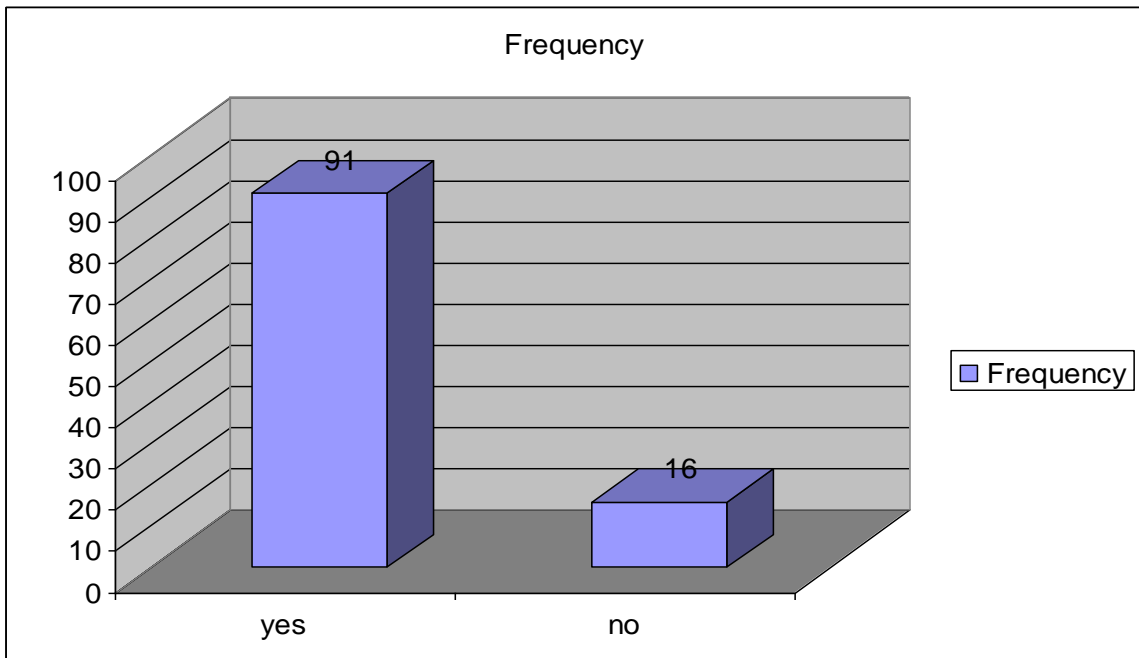


Figure 4.4: Frequency of Absenteeism

On absenteeism from school, 91 out of the 108 students, representing 85% confirmed that they had been absent from school. Seventy out of the 91 students (77%) had been absent from school for more than two weeks in a term. One of the major reasons for the absence from school was due to lack of school fees.

Students who had fee balances were sent home to look for fees. Such students were expected back to school only after clearance of fees for the whole term. This ended in long absence from school, or even drop outs especially for students with low financial

ability. The long absences could sometimes affect students' academic performance as it took them along time to catch up with the rest of the students.

With supplementary income for the school through use of the readily available assets, the fees would be kept at affordable rates. It would also be possible to embrace friendlier fee payment procedures to help students from low income households comfortably complete their studies. This is reflected in Figures 4.5 and 4.6:

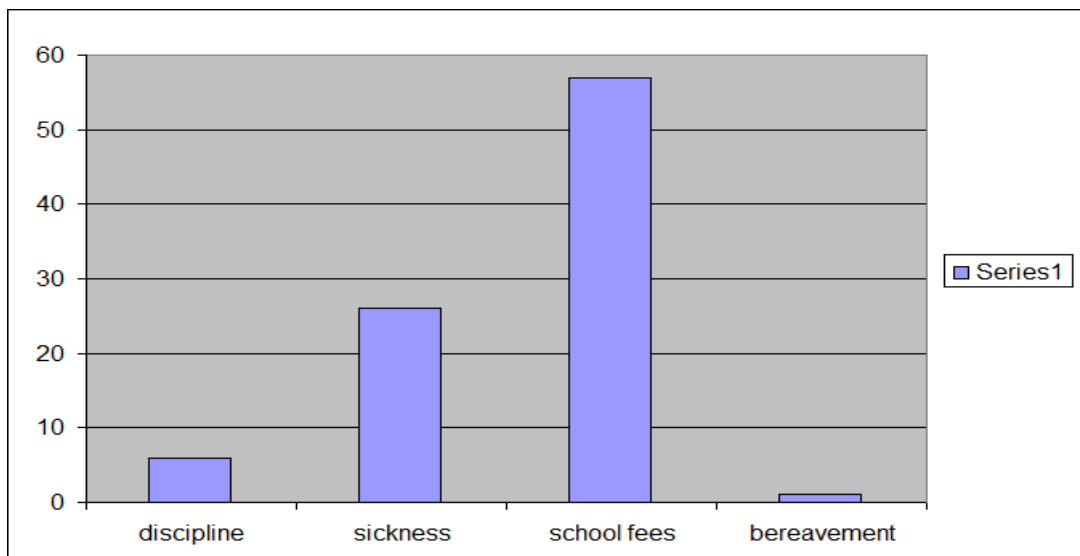


Figure 4.5: Reasons for absence from school

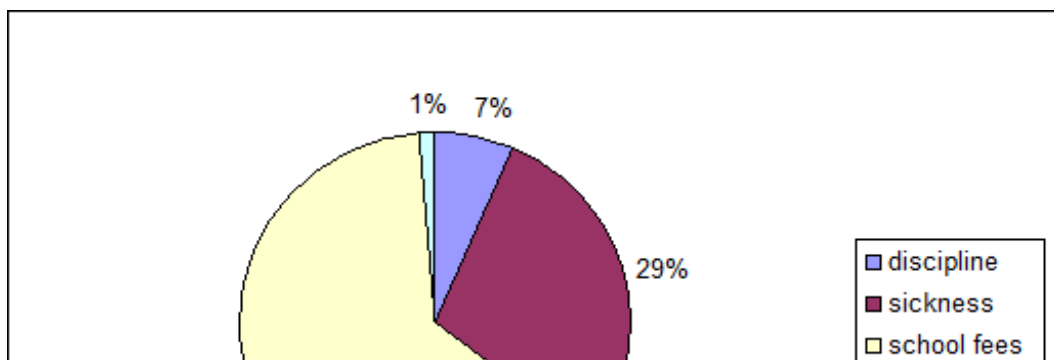


Figure 4.6: Reasons for Absence from school in percentages

Sixty three percent of the total absence cases were due to school fees. This means that the fee defaulters were sent away from school to source for school fees. It was established that 86 out of the 108 students (80%) were involved in some form of income generating activities during holidays. This was in terms of direct casual employment or helping in the family business or work. Sixty seven out of the 86 students used their income to supplement domestic (family) budget needs including buying books and paying school fees. Only nineteen of the students used the proceeds for their own personal needs. These students also indicated that such income was mainly accessed from family business than from working out of the nuclear family set up. These students participated in the work as a result of family responsibility than for the pure reason of accessing supplementary income. This was unlike the situation of students from low income backgrounds.

Students from the low income family background were more concerned of how they could acquire funds to buy the much needed items in order to ease their parents of these burdens. This valuable time could have been used for revision and study if the school had internal income generation avenues. Such students could use that time to do some work study in school so that their fee is met. They would be more motivated to excel academically in the knowledge of such strategies employed by the school for their well being.

Of the 108 students, 100 indicated that they had siblings in other secondary schools. Their parents met all the school related expenses. Only 8 students indicated that their fee was paid by well wishers and charitable organizations. Even in such scenario, with financially stable school establishment, such support could spread to more students; opening education to more needy students. The well wishers are able to sponsor other students because their own needs have been sufficiently met. The supplementary income generated at the school level would therefore enable the well wisher save more funds, translating into support for more students.

Fifty-six out of the one hundred and eight students were not well prepared for the final examinations. This was due to lack of vital equipments and absenteeism from school due to lack of school fees. Both lack of vital learning resources and absenteeism from school could directly be linked to lack of funds. With sufficient supplementary income, the school can be able to access most of the school requirements. Acquisition of the much needed school funds from parents is diminishing at a rapid rate due to the current

economic decline. In order to alter this trend of absenteeism from school in future, 75 out of the 108 students (70.2%) suggested a decrease in the level of school fees charged to parents. This is possible through strategic and responsible use of available school assets to generate supplementary income.

4.3 Initiating income generation activities in schools

For the school to optimally utilize the school assets for supplementary income generation the head teacher must not only feel the need but also have the necessary skills required to initiate such projects.

The head teachers' questionnaire attempted to establish the head teachers preparation and initiative in generating the required supplementary school income. The response by school head teachers on use of school assets to generate supplementary income indicated that most of them were either not doing much or were unwilling to divulge information on the income generated by use of school assets.

On whether any of the school assets were rented out for monetary gains, the response was given as shown in Figure 4.7:

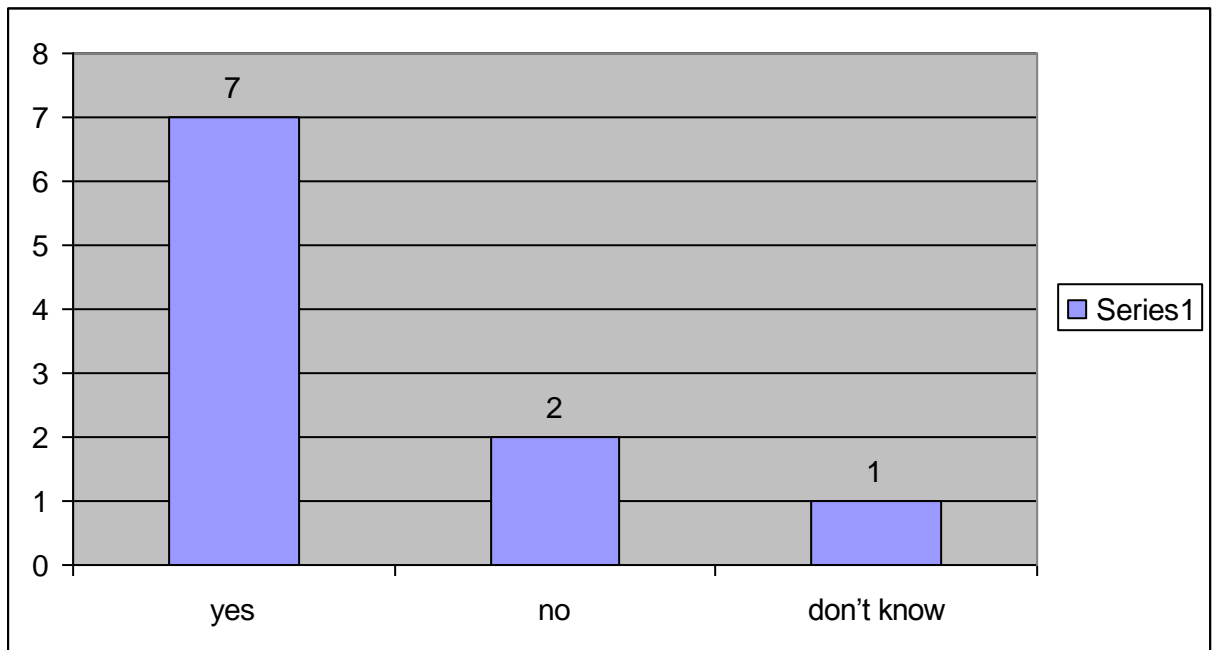


Figure 4.7: Readiness in Renting out School Assets

From this figure, it is clear that there was marked readiness to use assets for income generation in schools. 7 out of the 10 respondents (70%) confirmed a readiness in using school assets to generate income. Proceeds accruing from use of school assets were used for buying learning equipment and hiring human resource. However, there was one respondent who was not sure of whether or not he was ready to rent out school assets for monetary gains.

For the two respondents (20%) who did not use assets for income generation, this was more due to the lack of assets than unwillingness to exploit the assets for monetary gains. This could be questionable because the very existence of the schools means that there are assets.

The school needs some land, classes and playing fields. This was true of all the public schools sampled. Indication of lack of assets was therefore just an admission of the failure of the head teachers to identify the economic uses for which the available assets could be put. Some of the economic uses could include renting out the available premises or ground for social activities at a fee.

Although the school heads were not satisfied with the financial state of their respective schools, only two (20%) could think of initiating income generating activities by use of school assets as one of the ways of supplementing the school income. The other 2 (20%) would seek alternative financing with the rest (60%) opting to appeal to the government for help. This negates their confirmation to a willingness to use the school assets for generating supplementary income.

The government is currently overstretched with other social responsibilities. Furthermore, dependence on government simply implies increased taxes for the households. The conception of a homegrown income generation venture seems remote to most (7 out of the 10) of the head teachers. Since the possibility of getting more funds from the government seems limited, many head teachers opt to increase the school fees to meet the school budgetary shortfall. This in turn increases the household educational burdens, making some students to drop out of school or take long periods of time out of school due to failure to pay fees in time.

There was a felt need to solve the financial problems which some schools had perennially found themselves in. Most of the schools' financial resources were received from parents through school fees. The said resource was however insufficient for the smooth running of the school. The suggested solutions are reflected in Figure 4.8.

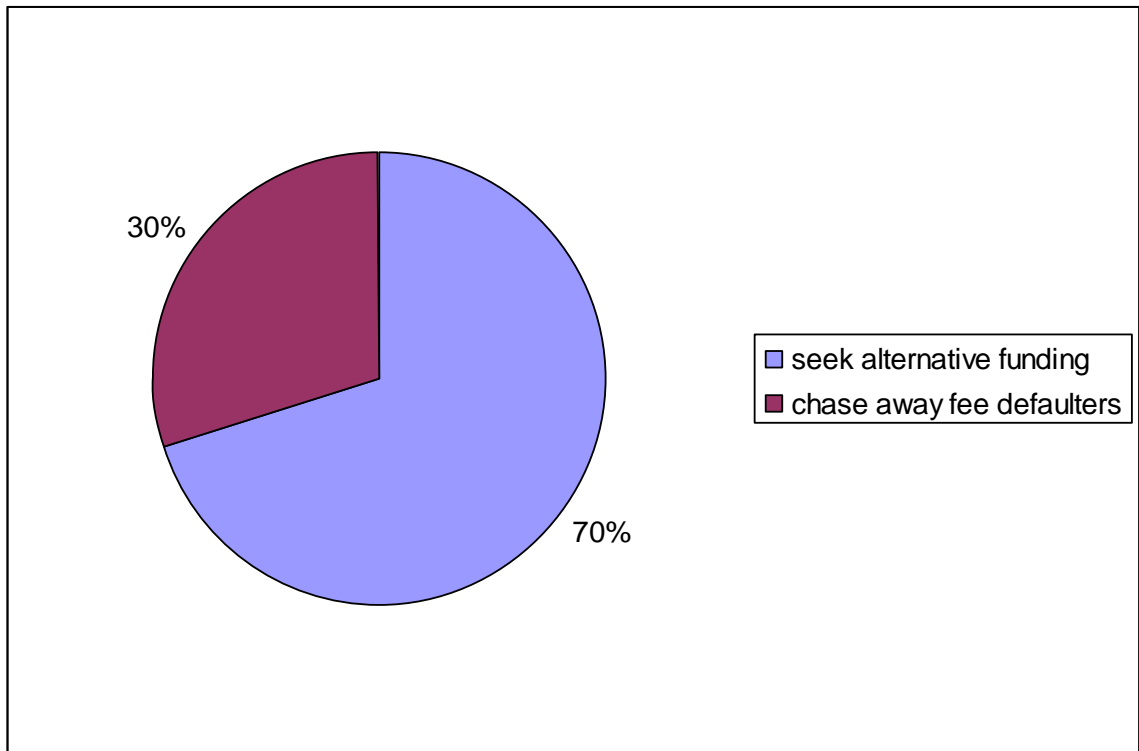


Figure 4.8: Solution to School Liquidity Problems

According to this figure, 7 out of the 10 head teachers were in agreement that the most appropriate solution would be to seek an alternative supplementary source of income. Only 3 of the respondents, (30%) saw chasing fee defaulters away from school as the best way to resolve financial problems. Ironically, the opposite was happening in the schools. Students were chased home to look for school fees instead of reverting to alternative avenues even as the fee payment or clearance is pursued. This is just an admission by the head teachers that although they chase away fee defaulters, due to the effects of such an action, they would

prefer that alternative financing avenue is identified. Time is ripe that the head teachers come at the fore front, not just of spending but also of establishing supplementary income generation strategies for sustainable development of the secondary school education.

4.4 Constraints in use of School Assets to generate income

It was impossible to explain why some schools were experiencing restrictions in their use of school assets while others did not. This could be due to the fact that the school board of governors had a major contribution in management and use of school. Some boards could be unnecessarily rigid while others remained flexible in management and use of school assets.

Five head teachers confirmed that there were restrictions from the schools' Board of Governors while the other four indicated that there were no restrictions. One school head decried the high level of micromanaging that the board was imposing to the school. However, some of the restrictions were based on the time of the year and nature of activity for which the renting was requested. This may be because there were times when schools were too busy to allow for any external interruptions. Booking the school hall during the exam period (3rd term) for an annual general meeting by a cooperative society could be undesirable due to the noise that members of the society would make, interfering with the examination process. Schools are also expected to uphold the national goals and aspirations, and particularly education goals. Restrictions based on the nature of activity must therefore be imposed so that social vices are not promoted for the sake of generating supplementary income.

All the ten head teachers indicated that their theoretical and practical preparation in initiating income generating activities in their schools was good. They therefore felt competent in all aspects of school management. When asked to indicate the factors behind their sound preparation, 2 confirmed that it was due to past experience while 2 said that it was due to training. The other 6 could not respond to this question, raising doubt as to their answer on how well they were theoretically and practically prepared. This confirmed that preparation in terms of the head teacher was very crucial in implementing sound economic practices at the school level. There could be sufficient assets and sound environment for income generation but without the relevant training, this would not come up as a tenable approach to school liquidity problems. The financial management courses offered under the Bachelor of Education degree was not sufficient in preparing the school heads in real asset management for income generation. There was need for a tailor made course towards asset management and income generation.

It was nonetheless, by way of interview confirmed that 7 of the respondents maintained clear records on use of school assets, while 3 did not. However, no actual records were seen on the ground. Without clear records, it was not possible to know the level of income accruing from use of the readily available assets. It was hard to determine the sustainability of such a program. Record keeping is crucial in this era of accountability. It was found important to enhance record keeping processes to ensure accountability.

Two of the ten schools recorded good performance in the national exams. However six recorded average performance with two other schools recording poor performance in the national exams. In all the schools, the head teachers indicated that their performance was not at the apex. There was still room for further improvement. All the head teachers were in agreement that for the performance to improve, there was need for availability of the required instructional materials and equipment. With limited financial resource base, most (70%) of the head teachers proposed a revision of the government policy on management of schools while others proposed refresher courses for the school head teachers.

4.5 Summary of findings

From the analysis and interpretation of the data above, it is clear that various schools have basic assets which could form the basis for income generation. The poor schools have poor asset base, insufficient income and perform poorly in the national exams. Such schools also attract students from poor backgrounds who struggle to pay school fees.

The rich schools have a reasonable asset base which is to some extent used to generate supplementary income. However this is not done on a deliberate and routine basis. The level of fees charged is high hence attracting students from middle and high class economic level. This disparity can be bridged if supplementary income generation can be embraced and institutionalized in schools. This could then be used to top up on the school economic requirements.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter looks at the summary, conclusions and recommendations arising from the collected and analyzed data. The overall picture arising from the analyzed data is shown. The recommendations made are as a result of interpretation drawn from the analyzed data and the various observations made.

5.1 Summary:

This study analyzed the place of school assets in generating the urgently needed income for the secondary school level of education in Kenya. The literature review indicated that there had been a general global concern at the rapid increase in education cost with limited or diminishing financial avenues. This was resulting in increased drop out levels as some households could not afford to sustain their children in school at increased cost. Though previous studies had recommended use of school physical facilities more fully to help generate the much needed supplementary income, this was done to a limited level, based on the school farm in disregard of other avenues.

The questionnaires, designed for head teachers and students, and observational schedule were used to collect data. The general state and use of the school assets for income generation in the light of the students' economic backgrounds were pursued. Results were graphically presented. Inferences were also made from the observable conditions. It was very challenging to correlate the availability of assets in a school with the school income

due to the unwillingness of the various school heads to divulge information regarding school income.

Analysis of data and inference from the observed data revealed that:

1. Schools with a reasonable asset base (5 acres of land and above, descent buildings, automobiles and equipment) reported a higher level of income compared to those with poor asset base. However, this could also be due to the high schools fees charged.
2. The average overall school performance in the national examinations by schools with considerable assets was higher than those which had few assets.
3. Many head teachers used school assets for income generation but did not consider it a serious school financial resource. There were no clear records of the income accessed through use of school assets.
4. There was a relationship between the level of school fees paid and the nature and availability of assets in schools. Schools with massive asset base charged higher school fees compared to those with few assets. Most of the students in the various schools reflected their families' economic backgrounds.
5. Most students from poor families used their free time and holidays to solicit for more funds through involvement in petty jobs in order to pay for school related expenses.

5.2 Conclusion

The first question that this study set to find out was: What are the available school assets and how does their use affect the financial position of secondary schools? It was established that most of the schools under study had enough assets. However, their use for income generation was scanty. Many were only used for instructional purpose with income generation as a secondary factor. This was found to affect the resource level of the various schools, making them basically dependent on parents, through school fees to finance their budget.

Schools with more assets were found to be expensive, shutting their doors from students from poor background. Availability of these assets not only raised the respective students' self image but also provided the required supplementary income which also aided in accessing more learning facilities.

The second issue dealt with the constraints that were facing the various schools in exploiting the potential in their assets. It was established that the school policy under which the heads were working did not allow them to be innovative in resource mobilization. However, in some cases especially where this was being done there were no steady records of income accrued and its use. Since the policy was negatively impacting on the productivity of the various schools, it was found necessary that it should be scrapped in order to open up avenues for maximum and responsible exploitation of school assets.

Many of the school heads were not innovative enough, preferring to work out of their past experiences. The avenues for income generation were scanty. Some did not see the need of such effort since parents provided most of what they needed to run the schools through school fees. They were all in agreement that there was need to devise new strategies of generating supplementary income.

5.3 Recommendations

Arising from the data analysis, interpretation and conclusion, the following recommendations are made:

1. School assets have a potential for income generation. There is need for every school to be more innovative and use the school assets to generate income. This should be accounted for and help bridge the resource gap in the school budget so that the level of school fees paid by parents is downwardly revised.
2. The head teachers have been operating under some restrictions on the extent of use of the assets. Some of these restrictions emanate from the school board of governors. Although some of them are meant to safeguard the school assets, they sometimes turn out to be retrogressive to the head teachers' innovation hence need for their revision.
3. Many head teachers were ill prepared in the area of record keeping and real financial accounting. This could be dangerous especially in the event of a school clerk taking advantage of such ignorance to endear his or her own selfish

ambitions. There was an established need for workshops and refresher courses to enlighten the head teachers.

In view of the results to this study, the researcher recommends further studies to be conducted in the following areas:

1. A similar study that utilizes qualitative research methodologies.
2. A comparative study between private and public schools to establish how each sector uses its assets and what each sector can learn and borrow from the other.
3. A similar study at the primary or tertiary level of education.

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APPENDIX I: Head Teachers' Questionnaire

COVERING LETTER

As part of my work towards fulfilling the requirements for a Master's Degree in Education (Planning) at Kenyatta University, I am undertaking a research on 'The use of school assets for generation of supplementary income in public secondary schools'. All information disclosed will be kept confidential. Your answers to the questions hereunder will be most helpful in realizing this objective and will be greatly appreciated.

Very truly yours,

Namai Obuchere Joab

BACKGROUND INFORMATION

1. Is your school National ____, Provincial ____, District____?

2. Where does the school get most of its financial resources?
- a. Government _____
 - b. Well-wishers _____
 - c. Parents _____
 - d. School itself _____
 - e. Any other _____
3. Do you rate the said sources sufficient for the smooth running of the school?
Yes___ No___

SCHOOL ASSETS

1. How many acres of land does your school have? (Tick where applicable)(a) 1- 4 (b) 5- 8 (c) 9-12 (d) over 13
2. How is this land used? (See table below)

ACTIVITY	ACRES OF LAND
Buildings	
Farming	
Playing grounds	
Other uses	

2. What other assets, e.g. automobiles, classes, electronic gadgets does your school have?
(Please list them)

3. Are the available assets sufficient for the teaching/learning requirements? ____

4. If not, which ones are in short supply/needed? (Please list them)

5. What could be the reason for lack of the assets as noted in 4 above? (a) Lack of funds

(b) Misuse of assets (c) Lack of personnel or skills to use (d) Any other ____

6. How does the absence of the assets affect the smooth running of the School? (a) Unrest

in school (b) low performance (c) Poor diet (d) Any other ____

7. Do you rent out any of the school assets? Yes ____ No ____

8. If not what are the reasons for this?

9. If yes do you have any restrictions in terms of who receives these services? Yes ____

No ____

10. In case of restrictions, on what are they based? (a) Political affiliations (b) Religious

background (c) Nature of activity for which renting is done (d) Time of the year

(e) Any other

11. Why do you enforce the afore mentioned restrictions?

12. Do you have any law that guides the renting exercise?

13. Who approves use of these assets?

For question 14 and 15 please use the table below:

14. Apart from the traditional instructional purposes, what other economic purposes are these assets used for?

14. What monetary returns accrue from use of these assets per year?

Asset	Economic use	Frequency	Income/Year
Buildings (hire/rent)			
Land (farming)			
Electronic gadgets			
Automobiles			

Any other			

16. Are you comfortable with the financial state of your school? Yes__ No__
17. If uncomfortable, which ways can you use to improve the financial state? (a) Increase school fees (b) Seek alternative financing. (c) Appeal to the government (d) Initiate income generation by use of the school assets (e) Any other__
18. Does your school keep records of the use of assets? Yes ____ No__
19. How do you rate the use of assets for income generation in your school? (a) Excellent (b) Good (c) Fair (d) Poor
20. How do you rate your theoretical and practical preparation in initiating financial enterprises by use of the school assets? (a) Very good (b) Good (c) Fair (d) Poor
21. In which aspect do you particularly feel unprepared (please list them)?
- _____
- _____
- _____
22. What remedial action seems necessary to alter the trend in 21 above? (a)Initiate refresher courses for school heads (b) Revise government policy (c) Broaden the B.Ed training curriculum (d) Any other_____
23. If well prepared, what do you consider the factor(s) behind this? (a) Past experience (b) Training (c) Refresher courses (d) Any other

24. What evidence do you have for your answer in 23 above?

24. What do you consider the limits to maximizing on the school assets' potentials? (a) Government policy (b) Lack of technical skills (c) Lack of assets (d) Lack of initiative (e) Others

25. How has your use of school assets affected the acquisition of more resources? (Please explain your answer)

26. What is the enrolment level of your school?

(a) Very high (b) High (c) Average (d) Low

27. What is the rate of survival of students from Form1 to Form 4? (a) 100% (b) 75% (c) 50% (d) 25%

28. What do you consider the reason for the trend in 27 above? (a) Lack of school fees (b) School policy (c) Truancy (d) Transfers (e) Any other_____

29. What is the general performance of your school in National exams? (a) Excellent (b) Good (c) Fair (d) Poor

30. Do you consider this the apex of your performance? Yes___ No___

31. If not what do you consider the barrier? (a) Lack of facilities (b) Learners' characteristics
(c) Insufficient human resources (d) Any other _____
32. If yes what do you consider the factor behind this performance? (a) Sufficient facilities (b) Sufficient human resources (c) Student characters (d) Any other ____
33. What is the range of school fees charged in your school? (a) 5,000-10,000 (b) 10,000-15,000 (c) 15,000-20,000 (d) 20,000 and over
34. How do you assess the servicing of school fees in your school? It is (a) Very high (b) High (c) Average (d) Poor (e) Very poor
35. What is the total percentage of students who have cleared fees? (a) 100% (b) 80% (c) 50% (d) Below 30%
36. How has this trend affected the running of the school? (Please explain your answer)
- _____
- _____
- _____
37. What do you consider the reasons for this trend?
(a) Poverty (b) Truancy (students use fees) (c) Poor follow-up (d) Any other _____
36. What, in your opinion is the appropriate solution to these problem(s) (a) Seek alternative funding strategies (b) Chase fees defaulters (c) Lower fees (d) Any other ____
37. Name the particular assets used to generate funds in your school.

38. Do you consider these the only assets that can be used to generate funds in your school? ____

39. Which other assets do you think can be successfully used to generate supplementary income? (Please list them)

40. How can the named assets in 39 above be used to generate this income? (Please explain)

41. How is the income so accessed utilized? (a) Hire human resources (b) Buy more assets (c) Buy learning equipment (d) Any other_____

Thank you very much for your responses.

APPENDIX II: Students' Questionnaire

(Please tick in order of preference in case of options)

1. What is your birth order? (a) 1st born (b) Middle born (c) Last born (d)
Any other _____
2. What is your father's occupation? _____
3. What is your mother's occupation? _____
4. Do you have other siblings in school? _____
5. Who pays their school fees? _____
6. Approximately how much do they pay in school fees every year?
(a) 5,000-10,000 (b) 10,000-15,000 (c) 15,000-20,000 (d) Above 20,000
7. For how long have you been in secondary school? ___ Yrs.
8. Who pays your school fees? (a) Parents (b) Sponsor (c) Self (d) Any
other _____
9. How much do you pay in school fees per year? _____
10. Have you ever been absent from school? ____
11. If yes, how many times? _____
12. If yes, what was the reason for your absence? (Please tick appropriately)
(a) Discipline case (b) Look for School Fees (c) Sickness
(d) Bereavement (e) Any other _____
13. If not, what do you consider the factor behind this? (a) Rich parents (b)
Good sponsors (c). My high discipline (d) Any other _____
14. Do you feel well prepared to sit the forth-coming exams? _____

15. If not, what do you deem the reason for this? (a) Lack of vital equipment
(b) Absenteeism due to lack of fees (c) Can't tell (d) Any other _____
16. What do you think could be done to alter this in future? (a) Lower school fees (b)
Avail equipment (c) More strictness from the teachers (d) Any other _____
17. What are some of the major items and equipment you require to better your
academic performance?

18. How strict is your school on fees payment? (a) Very strict (b) Fairly strict (c) Not
strict (d) Any other _____
19. What profession do you aspire to pursue? _____
20. What is the reason for your answer in 19 above? _____
21. How do you intend to finance the pursuit of the profession in 19 above? (a) My
parents (b) I'll take a loan (c) Sponsor (d) Any other _____
22. What do you always do during your holidays and vacations (a) Just sit at home (b)
Help my parents with their work (c) Do some jobs for wages (d) Any
other _____
23. If you work for some wage during vacation, what do you mainly use this money
for (a) Buy food for the family (b) Buy books (c) Pay my fees (d)
Own luxury (e) Any other _____

Thank you for your responses

APPENDIX III: Observation Schedule

Assets Available State/condition Use

1. Buildings

- i. Classroom
- ii. Halls
- iii. Workshops
- iv. Home Science Rooms
- v. Laboratories
- vi. Libraries
- vii. Health Centre
- viii. Any other

2. Pitches/Fields

- i. Basket ball
- ii. Foot ball
- iii. Tennis
- iv. Volley ball
- v. Indoor games
- vi. Swimming pool
- vii. Rugby
- viii. Any other

3. Equipment

- i. Computers
- ii. Projectiles
- iii. Films and Videos
- iv. Duplicating Machines
- v. Photocopier and Cameras
- vi. Any other

4. Automobiles

- i. Buses
- ii. Tractors
- iii. Lorries
- iv. Pick ups
- v. Any other

5. School Mean Grade

Year	No. Of Candidates	Mean grade
1998		
1999		
2000		
2001		

APPENDIX VI: Nairobi Province Map