# FINANCIAL RESOURCE MOBILIZATION STRATEGIES AND INTERNAL EFFICIENCY OF PUBLIC SECONDARY SCHOOLS IN RACHUONYO SOUTH SUB-COUNTY, HOMABAY COUNTY, KENYA.

 $\mathbf{BY}$ 

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A THESIS IN FULFILMENT OF THE REQUIREMENTS FOR AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMICS OF EDUCATION OF THE UNIVERSITY OF NAIROBI

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# DECLARATION

This Thesis is my original work and has not been presented for the award of a degree in any
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# **DEDICATION**

This work is dedicated to my beloved wife Susan, my children Erick, Walter, Maryanne and Joygracia whose understanding gave me the impetus to persevere. It is also dedicated to my late wife and father both of whose demise gave me a new direction in life. Over and above these, the thesis is dedicated to all the children and teachers of Kenya in whose hands lie the future of our great nation.

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# ACRONYMS AND ABBREVIATIONS

BOM – Board of Management
CCP – Chinese Communist Party
CCWR – Crude Cohort Wastage Rate
EFA - Education for All
FMS – Financial Management System
FTSE – Free Tuition Secondary Education
GDR – Grade to Dropout Rate
GER – Gross Enrolment Rate
GOK – Government of Kenya
GRR – Grade Repeater Rate
IGAs – Income Generation Activities
IIEP – International Institute for Educational Planning
IPAR- Institute of Policy Analysis and Research
KESSP – Kenya Education Sector Support program
KIPPRA – Kenya Institute of Public Policy and Research Analysis
MOEST – Ministry of Education Science and Technology

NER – Net Enrolment Rate

NGOs – Non- Governmental Organizations

OECD – Organization for Economic Co-operation and Development

PTA – Parents Teachers Association

SPSS – Statistical Package for Social Sciences

UNESCO - United Nations Social and Cultural Organization

#### **ABSTRACT**

Internal efficiency as a measure of school effectiveness is seen in terms of the flow of students in a school system and their performance at the end of an educational cycle. Financial resources are core to the implementation of any school programme. It is believed that internal efficiency is basically dependent on physical, monetary and human resources all of which can be expressed in monetary terms. This study looked at the nature and impact of resource mobilization strategies like user fee, state subsidy, student labour, community funds, NGO funds, income generation activities and schools foundations on internal efficiency measured in terms of the levels of retention, repetition and performance of students. A descriptive survey research design was used. The study used 61 schools out of a sample of 72 public schools in the Sub County. A stratified random sampling technique was used. A head teacher's questionnaire was used to collect data from the schools in addition to an observation schedule and an interview schedule. Reliability of the instrument was ascertained using a test-retest procedure getting a Pearson's correlation co-efficient of 0.70. Research and Educational Planning and Economics specialists from the School of Education, the University of Nairobi were consulted to help validate the instruments. Both descriptive and inferential statistics were used to analyse the data. Findings indicated that more financial resources resulted into enhanced internal efficiency. The research found out that schools which charge and collect more fees on average perform better academically. The schools also had high retention rates and low wastage rates hence high internal efficiency. The receipt of government subsidy through the FTSE program was found to have enhanced internal efficiency since it had reduced both dropout and repeater rates. Also it had improved instructional facilities translating into good examination performance. Though underutilized, foundations and endowments did positively influence school retention rates through providing scholarships to bright and needy students. Harambee funds helped subsidize development of school infrastructure which locks the children of the poor from school. It therefore enhanced retention and transition rates which signify high intern'al efficiency. The proper use of time and human resource in school enhances learning and thus internal efficiency. In terms of resource mobilization, the rationalization of the time and human labour creates savings which reduce cost of education and hence improved internal efficiency. Income generation activities create finances which would support instructional activities and thereafter positively influencing retention rates and performance.

The regression analysis results showed that student performance as a measure of internal efficiency had positive relationship with all the considered resource mobilisation strategies. Retention rates have positive relationship with all the strategies in question apart from community funds which showed a negative relationship. Finally, repetition rates had a positive variation with income generating activities and state subsidy. The strategies of user fees, community funds and student labour however had negative relationship with repetition rates.

The study recommends that schools should exploit the resources at their disposal effectively and efficiently to reduce the cost of education and cut down wastage in schools. Also the school managers should ensure that schools are run as business entities whose profitability relies on the ability to manipulate available resources to enhance performance, increase retention rates and reduce repetition rates.

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 Background to the Study

Provision of public education involves mobilization and consumption of resources. The act of resource mobilization can be seen as a concerted effort to generate resources for a specified entity to fulfil a planned purpose. Such resources include, finance, human, material, machines, time, and nature itself (Ngware, 2007). Financial capital is a significant resource often assumed to be a part of physical capital. It is actually the basis for procurement, utilization, and maintenance of all types of resources. Without a strong financial base, it will be difficult to produce the right types of goods and services in desirable quantity and quality. Since the human economy is monetary, the availability of funds in any organization or institution is vital to its productive process and quality of its products and services. Specifically, resources are mobilized to achieve sustainability, non-dependency on single sources of funding, supplementary sources to existing funding, support to institutional overheads, alternative resources for new projects and to build reserve within the organization to allow for long-term investments such as infrastructure equipment or purchase of land (Omukoba et al, 2011).

The importance of financial resources in management of education cannot be over emphasized. It might not be possible to deliver effective education without enough resources. Instructional resources provide a solid basis for thinking, increase the propensity of brain to retain information, make learning more interesting; and take cognizance of individual differences. Quality of resources available to any education system provides a basis for the assessment of the managerial abilities of an education manager. Resources can be used to

create wealth which eventually can be ploughed back to support the school budget and improve internal efficiency in education (Psacharopoulos, 1987).

In a social research paper complied at Kenya Institute of Public Policy and Research Analysis (KIPPRA), Ngware (2007) observed that the situation in most developing countries characterized by an education sector increasingly claiming a big chunk of household and public sector resources against the backdrop of widespread low income growth, mounting international debt and rapidly growing population whose demand for education cannot be fully met by traditional means of financing. There was therefore a need to focus on cost reduction and non-traditional sources of funding in order to expand quality secondary education in Kenya. In the 2009 economic survey, the government observed that to adequately fund Free Tuition Secondary Education (FTSE), extra resources away from general tax revenue need to be sought. A report by the Institute of Policy Analysis and Research (IPAR) in 2009 indicated that even with FTSE, schools still needed money for lunch, school infrastructure and boarding facilities. Further, households are also expected to provide non- discretionary items such as school uniforms, sport kits, books and stationery. Accordingly, the institute did recommend that schools should establish localized fee waiver mechanisms and income generating activities.

The largest potential source of funds for schools is payment of fees for tuition and related instructional services such as registration, examinations, computers and access to library services. There can be a considerable variation both among institutions and regions in terms of fee payments. Before the commission of the FTSE programme, payment from parents constituted 92.1% of school income (Gogo, 2009). However, the delays experienced by the government to disburse the funds and her inability to cover all costs of secondary education showed that even the state is financially fatigued (Republic of Kenya, 2012). In 2009/2010

financial year, the Government of Kenya spent 124.63 billion shillings on education alone amounting to 15.5% of the national budget (Republic of Kenya, 2011).

In nearly all countries, a large portion of national resources, both public and private, is devoted to education. The rationale for sustaining this fact is undeniable. A quality education, beginning with primary education, is fundamental to endow individuals with the capacity to successfully pursue their private goals while at the same time equipping them with the knowledge and skills, as well as the values and attitudes, necessary to contribute effectively to the economic, social and political development of their societies.

Education not only empowers individuals to live a better life, but also makes an enormous contribution to the development of a country by, among several other things, reducing illiteracy, poverty and fertility, while at the same time improving nutrition and health, the productivity of labour and the quality of governance (World Bank, 1995). Although there is no predetermined adequate level of resources that a country should devote to education, the actual level of resources a country invests helps determine the quantity and quality of education received by its children.

A good education financing system generates an adequate level of funding while promoting efficiency and equity aimed at optimizing the distribution of education quality and its benefits among the members of society. Adequate levels of expenditure lead, all other things being equal, to optimum educational outputs and outcomes, while allowing for a balanced pursuit of other, competing social goals.

In Africa, mostly in Sub-Saharan African countries, the problem is how to afford the unaffordable: planning and financing sustainable education systems. However, considering the importance of financing the education sector, African governments should review their stand on education financing (World Bank, 1995). In fact, although public expenditures on

education have remained more or less constant, they have declined after debt costs are taken into account. At the same time average public expenditures per student are declining in real terms or are stagnant at low absolute levels because of population growth and increased participation. Hence, regarding this educational stagflation there must be ways to fund and use existing resources more efficiently. Indeed, a special attention should be paid to how policy advice is implemented and the relationship between planning and budgeting, including how budgets are made.

The rationale for government intervention in education relies on the need to enable the country to use its limited resources better and avoid ad hoc educational development policies in order to achieve the capability of providing education which is both sustainable and affordable. Particularly in African countries; there are a number of factors which influence the planning and financing of sustainable education systems, which include; demographic factors; national economic performance, including the structure of the economy, degree of industrialization and rural/urban economic activity; unemployment and, the distribution of income; external assistance and levels of external debt; patterns of previous provision and social demand; as well as external advisers and external models.(Psacharopolous, 1985)

In short, financing is an important dimension in any relationship of accountability, as without financing, the agent lacks the means to perform the delegated tasks. When education services fail clients, an analysis of the manner in which the government spends money offers solid initial steps in isolating the underlying problem. If politicians and policy makers spend more money than they can sustain, public services deteriorate. If budgets are misallocated, basic services remain under funded, and frontline providers are handicapped. And if funds are misappropriated, service quality, quantity, and access suffer (Fredriksen, 2011). The budget is a critical link in the long route of accountability connecting clients to providers through

politicians and policy makers. Thus it is important to take a closer look at the budget when assessing the performance of education services delivery.

Mobilization of resources available to schools can help bridge the financial gaps in education budget. A number of strategies can be used to ensure effective and efficient exploitation of resources available in the schools. The Government of Kenya through the Sessional Paper Number 6 of 1988 expressed the need to cost-effectively use the available resources in schools like land, finance, human resources, time, facilities and equipment to ensure provision of quality and relevant education (Republic of Kenya, 1988).

In addition to cost effectiveness, another strategy which can be used to mobilize resources is cost recovery. The structures in the school and other facilities can be put on hire to recover costs. This can provide money not only for maintenance but also for expansion (Psacharopaulos, 1985).

Further, schools can request for donations and grants from various development partners to sponsor school programmes and projects. To try and streamline this strategy, the Kenya Education Sector Support Programme (KESSP) was instituted (Republic of Kenya, 2005). All monies got from donors were to be used transparently. In addition, students from poor families can request for bursaries from the Ministry of Education and the constituency development fund, however, the screening process has been faulted for favouring the politically correct rather than the needy (Ngware, 2007)

The human resources in school consist of teachers, students and the support staff. In a KIPPRA paper on cost reduction and financing options, it was observed that schools strive to be self – sufficient. Such schools could focus on entrepreneurial flair of their staff and students in maximizing the returns to human and physical resources at their disposal (Ngware, 2007). There is a possibility that the labour and knowledge of students and teachers

could be mobilized to improve the fortunes of the schools. The hiring of human resources in schools in terms of teachers is a prerogative of the state. The number of teachers in secondary schools did increase from 48,087 in 2009 to 53,047 in 2010 while the student/ teacher ratio went up from 30:1 to 32:1 (Republic of Kenya, 2011). Schools are therefore being compelled to mobilize resources to meet the teacher deficit.

Time is a resource that is highly limited in supply and critical in education, but often taken for granted by the providers and users of educational resources (Macarthy&Zald, 1977). It is a vital resource that is indispensible in effective harnessing and utilization of physical, material, financial and human resources in the school system. Effective time management ensures achievement of the objectives for which a school is established (Ebong, 1997). How schools manage their time would most likely make a difference in achievement.

Engaging in income-generating activities as a strategy can also create funds to schools. This can help make them become self-sustainable. Agricultural activities can heavily support the school budgets (Kuingu, 1990, Wesonga, 1996). A survey conducted in Eldoret Municipality, Omukoba (2010) noted that secondary schools have a potential to mobilize resources to help support teaching and learning activities, however, there was no policy framework for planning and mainstreaming Income Generating Activities, limited capacity and entrepreneurial ability to support the various strategies. A study in Suba district found out that schools have financial inadequacy and depended on fees and *harambees* as major sources of finances. Further, income-generating activities were still far from solving financial burdens of the schools because of lack of planning (Oduogi, 2004).

According to study in Nyando District, sources other than direct fees contributed very little towards supporting school activities. Both foreign aid and income-generation activities gave

negligible contributions (Gogo, 2009). However, the study underscored the unexploited potential of the two sources in reducing the general cost of education.

The enrolment trends in Kenya have been on the increase as indicated in Table 1.1. This in essence meant increased use of resources both physical and human. Between 2011 and 2012 total enrolments increased by over 8 percent while the recurrent expenditure of the ministry of education increased by 11.8 percent over the same period. (Republic of Kenya, 2013)

Table 1.1: Enrolment in secondary schools in Kenya by class and sex 2008-2012

Table 1.1: Enrolment in secondary schools in Kenya by class and sex 2008-2012

Year <b>2008</b>		2009		2010		2011		2012		
CLASS	BOYS	GIRLS								
Form 1	207212	180461	232854	212467	266707	232226	276965	244636	282555	249573
Form 2	170487	142873	202045	175098	232145	211799	240552	219469	274195	239743
Form 3	181775	155798	170281	142579	216786	181823	224637	188408	239149	218278
Form 4	161026	136275	182764	154546	169899	141999	206552	166501	223132	188198
Total	720500	615407	787944	684690	885537	767847	948706	819014	1019031	895792
GRAND	1335907		1472634	,	1653384		1767720		1914823	
TOTAL										

Source: Kenya Statistical abstract 2013

Access to secondary education continued to increase as a result of implementation of Free Tuition Secondary Education (FTSE) programme. The total enrolment in both public and private secondary schools rose by 5.6 percent from 1.8 million in 2011 to 1.9 million in 2012.

Total girls enrolment increased by 9.4 percent while that of boys grew by 7.4 percent. The retention rate at secondary school level declined from 96.2 percent in 2011 to 92.4 percent in 2012 with the rate of boys at 95.8 percent compared to that of girls at 88.6 percent. The decline in retention rate could be attributed to high school fees imposed by schools in spite of the availability of fee guidelines for secondary schools (Republic of Kenya, 2013).

Secondary school gross enrolment rate increased from 42.5 percent in 2008 to 49.3 percent in 2012. The high GER in comparison to net enrolment rate indicates presence of over-age and under-age students in secondary schools. Gross Enrolment Rates (GER) increased from 48.8 percent in 2011 to 49.3 percent in 2012 while Net Enrolment Rates (NER) increased marginally from 32.7 percent to 33.1 percent during the same period. Implementation of FTSE and expansion of secondary schools with improved facilities partly explains the increases for both GER and NER. (Republic of Kenya, 2013)

The internal efficiency of schools in Kenya as seen in terms of national examination performance over the years is indicated in Table 1.2. Evidently the number of candidates increased over the years. On average 46.9 percent of the candidates scored a mean grade of D+ (4 out of 12 points). This could be associated to inadequate learning and teaching resources. However, the mean grades were normally distributed with those getting poor performance almost equal to the good performance.

Table 2.2: National trends in KCSE mean grades 2008-2012

GRADE	2008	2009	2010	2011	2012	TOTAL	PERCENT
A	817	930	1566	1930	1975	7218	0.3
A-	5161	4422	6565	9063	9235	34446	1.9
B+	9365	9340	12737	16390	17730	65562	3.6
В	13369	14960	18173	29944	25183	101629	5.5
B-	18423	21823	24727	30115	31110	126198	6.9
C+	22514	29573	31904	39216	38471	161678	8.9
С	34120	39745	41747	49965	48905	214482	11.7
C-	42919	49736	50847	58845	58748	261095	14.3
D+	48953	56076	56440	63853	67203	292525	15.9
D	53608	59019	58705	64392	73566	309290	16.9
D-	42084	42274	42563	47273	52433	226627	12.3
Е	7067	5918	6108	6600	7884	33577	1.8
TOTAL	298400	333816	352082	417586	432443	1834327	100

Source: Kenya national examination council report in Kenya Statistical Abstract 2013

Evidently the number of candidates increased over the years. On average 46.9 percent of the candidates scored a mean grade of D+ (4 out of 12 points). This could be associated to inadequate learning and teaching resources. However, the mean grades were normally distributed with those getting poor performance almost equal to the good performance.

#### 1.2: Statement of the Problem.

In 2008, the Government of Kenya implemented the Free Tuition Secondary Education (FTSE) programme which was aimed at enhancing access to secondary education and improve on internal efficiency. As a result there was a substantial increase in enrolment from 1, 335,907 to 1,914,824 in the year 2012 (Republic of Kenya, 2013). Public expenditure on education was estimated to be 27.5 percent of total national recurrent budget by 2012 (Republic of Kenya, 2013). After five years of implementation of subsidised secondary education, the momentum seemed to be fading as enrolments stagnate even as the population is rising. This was on the background of increased poverty levels amongst parents and dwindling state resources (Republic of Kenya, 2013). Over expenditure in education can mean limited funding to other productive sectors of the economy thus leading to educated unemployment (Ngware, 2007). Both government and parental funding leaves a financial gap in the schools which calls for resource mobilisation. Over and above the Free Tuition Secondary Education programme, the schools still need to raise funds for development, boarding and national examinations. Clearly, there is a fundamental problem facing secondary education that requires serious investigation. School fees waivers might not necessarily be the cure for low participation and achievement. There could be a need to diversify the funding base of the secondary schools which is likely to affect students' performance in national examinations and retention in school. To find a way out of this financial distress, it could be imperative that school managers mobilize and efficiently use the available communal and institutional resources such as land, finance, physical facilities, human resources and time to generate income and sustain capital for the necessary learning and teaching resources in an attempt to improve internal efficiency. How then do schools mobilize available financial resources and use them effectively to support their budgets, so as to improve access, retention, graduation and performance index? It is with this background that the research looked at the effect of various financial resource mobilization strategies on internal efficiency of public secondary schools in Rachuonyo South sub county.

#### 1.3: Purpose of the Study

The purpose of this study was to investigate the extent to which schools apply the financial resource mobilization strategies and their impact on school internal efficiency. The sources of finance and how they are used can either positively or negatively affect students' performance and flow in secondary schools which the study set out to unveil.

#### 1.4: Objectives of the Study

The specific objectives of the study were:

- (i) To determine the effect of financial resource mobilisation strategies on internal efficiency of public secondary schools in Rachuonyo South sub county.
- (ii) To establish the challenges experienced by head teachers as they employ the different resource mobilisation strategies.
- (iii)To assess the extent to which mobilised financial resources are effectively used to ensure internal efficiency of the public secondary schools.
- (iv) To determine the measures of internal efficiency in the public secondary schools in Rachuonyo South sub county.
- (v)To suggest how the public secondary schools can expand their financial resource base to ensure sustainable internal efficiency.

# 1.5: Research Questions

The following research questions were addressed in the study:

- (i)What were the resource mobilisation strategies and their impact on internal efficiency of public secondary schools in Rachuonyo South Sub County?
- (ii) What were the challenges and attempts made by head teachers to achieve effective use of the resources mobilised by the schools?
- (iii) What were the values of measures of internal efficiency in public secondary schools in Rachuonyo South Sub County?
- (iv)What were the evidences of resource wastage in public secondary schools in Rachuonyo South Sub County and how can the effects be mitigated?
- (v)What policy implications could arise from the study of financial resource mobilization strategies in the schools?

#### 1.6: Significance of the Study

Financing of education in public secondary schools is a cost to both the government who hires teachers and provides for tuition and general operations and the parents who shoulder the expenditures on development of physical facilities and boarding. Schools must therefore endeavour to mobilize extra resources to be self-supportive.

The research was therefore intended to inform the school managers of the major research findings about financial resource mobilization strategies adopted by schools and their effect on school internal efficiency. It also attempted to identify the gaps in knowledge and understanding of financial resource mobilization strategies in schools and the measurable aspects of internal efficiency.

The findings of research expounded on the ability of head teachers to implement the policies and programs to enhance financial resource mobilization strategies and internal efficiency. It also informed the policy-makers on appropriate strategies to be used to mobilize finances and how the same can be used in schools to address the issue of internal efficiency.

#### 1.7: Limitations of the Study

The schools in Rachuonyo South District are a small fraction of all schools in the country making the findings to be only specific to the area of the study with little room for generalization. However, attempts were made to ensure homogeneity in the sample to enhance representativeness. Decisions taken by the respondents on whether or not to participate in the study had impacts on the response rate, internal validity and limited the research to an obtained sample other than the intended one. Nevertheless, the researcher endeavoured to assure the respondents of confidentiality and ensured over 60% participation.

#### 1.8: Delimitation of the Study

The study was conducted in Rachuonyo South sub County of Homabay County. The research was limited to how public secondary schools practice the specific financial resource mobilization strategies along with their effects on internal efficiency. The head teachers were the only respondents used in the study although some of the pertinent facts were corroborated through observation during data collection excursions.

# 1.9: Basic Assumptions of the Study

The study assumed that there are resources available to public secondary schools, which would otherwise be exploited to make education more affordable to both the state and the public. The study further assumed that the school managers are privy to information on the financial resource mobilization strategies that directly influence students' performance.

Subsequently, the research was to find out how schools can mobilize financial resources at

their disposal to achieve internal efficiency and effectiveness.

1.10: Definition of Significant Terms

The following are definitions of significant terms as were used in the study:

Budget rationalization: Used to mean reducing expenditures on the aspects of the school

which are core to teaching and learning processes.

Cost effectiveness: This refers to making rational expenditures. It involves giving value to

money that is, spending the least on an item without sacrificing quality.

**Internal efficiency**: Refers to the ability of a school to produce school graduates within the

stipulated time and at an affordable cost. It was measured by the use of dropout and repeater

rates and national examination performance index.

**Mobilization**: Refers to efforts made to exploit the available resources to initiate, sustain,

and improve teaching and learning programs.

Performance: This is the average scores of students in KCSE expressed in terms of a

school's mean score index.

**Public secondary schools**: These are second level learning institutions, which are managed

by teachers employed by the TSC and supported by public funds in accordance with CAP

211 of the laws of Kenya.

School resources: These are the physical, monetary, human, periodic, and material entities,

which a learning institution can use to support its core functions.

**Strategies**: These are long-term plans instituted to enhance school productivity.

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# 1.11: Organization of the Study

This study contains five chapters. Chapter one contains the background to the study, statement of the problem, purpose, limitations, objectives, research questions, significance, basic assumptions, definition of terms and organization of the study. Chapter two consists of literature review on the perspectives, prospects and problems associated with financial resource mobilization strategies in public schools and internal efficiency. Chapter three comprises of research design, target- population, study location sampling procedure and sample size, research instruments, instruments reliability and validity, data collection procedure, and data analysis techniques. Chapter four is dedicated to data analysis and interpretation while chapter five entails summary, conclusions and recommendations.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.1:Introduction

This section contains a review of literature on the need for resource mobilization in education and various financial resource mobilization strategies in schools and how they relate to internal efficiency. The focus is on resources creation, exploitation and use in public secondary schools. At the end of the review, there is a description of both the theoretical and conceptual framework. Essentially, the review provides for the knowledge gaps and a vital link upon which information on purpose; objectives and research questions of the study are analysed and interpreted. It also foreshadowed the researcher's contribution to body knowledge of resource mobilization and efficiency in education.

# 2.2 : Resource Mobilization Theory

Resource mobilization theory attempts to explain social movements by viewing individuals as rational actors that are engaged in instrumental actions that use formal organizations to secure resources and foster mobilization. The success and failure of a social organization is determined by external factors affecting resource flow and from an organization (McCarthy and Zald, 1987). A supply and demand model can be used to describe resources -in and resource out of organization.

An organization must use some resources to pursue its goals or adherents' will not purchase the target product. The first priority is self-preservation, followed by maintenance and or increase of membership and finally resources flow. An organization should divide its resources between recruiting new people, maintaining its constituency and directing activity towards its stated goals. (McCarthy and Zald, 1987).

Resource mobilization seems to be an emerging activity in many parts of the world, especially on education development. Education stakeholders, from primary level to tertiary level, try to mobilize resources effectively, in order to meet the expanding needs in their institutions. Resource mobilization stresses the ability of a movement's members to acquire resources (physical, fiscal, or materials) and to mobilize people towards accomplishing the organization or community goals.

The education sector in most countries is facing many challenges including inadequate teachers, lack of teaching and learning facilities and inadequate infrastructure. Others are low enrolment rate at various levels of education, low transition rate, gender disparity, and out-dated curriculum. Like in Tanzania the achievement in enrolment attained so far had triggered the need for even more facilities to match the increased enrolments (MarCarthy and Zald, 1987). This calls for effective strategies to mobilize resources to minimize these challenges. Resource mobilization might involve administration and other resource mobilization costs, but it should be born in mind that the cost in resource mobilization should be kept as minimal as it can be, as the intention of resource- mobilization is to solve education needs.

For example, when an education institution needs money for construction of infrastructure such as girls' dormitories and teachers' houses; procurement of text and reference books, laboratory equipment, and other facilities, they might need to raise funds to meet these needs. In order to run resource mobilization activity smoothly one needs to have some money for administration cost for activities such as communication (telephone, mail, and e-mail), printing costs, hiring of venue, community mobilization, and promotion materials and related costs.

Resource mobilization needs a lot of preparations and plans. The following are steps to follow: First step is to identify and analyse the organization, community, or institutional needs. Ask yourself, how many schools or classes are needed to be constructed? What is the problem behind that? What is the magnitude of the community awareness about the education problems over the area? Second step is to identify the necessary stakeholders and potential donors or contributors, and try to analyse how you are going to convince them to support your project. Ask yourself, why they should assist in a particular education activity, why should they give out their money. Third, do mapping of potential supporters. List all potential contributors and analyse their ability (in terms of skills, financial and material) to contribute toward the achievement of the program. Ask yourself, who is going to contribute? What are they going to contribute? How much are they going to contribute? (Aduogi, 2004)

Another step is to formulate a resource mobilization theme. The theme should be touchy, appealing that enters in the contributors' mind and emotions, so that he/she can contribute. The reasons why people donate money depend on their head (the logic in support of the meeting need) and the heart (the emotions present in the heart of the giver). Just like during political campaigns, political parties use various themes and slogans which they deem could touch their members and citizens to contribute resources towards their success of their campaigns.

Another very essential factor is to consider how you position and communicate the problem to the society. Communication strategy should be very much effective, in addressing the resource mobilization campaign. Experience with the resource mobilization campaigns in Kenya, recognize that there is a need for involvement of the specific community to support education resource mobilization campaigns in their communities. They can mobilize materials, finance as well as labour (Achola 1988). Resource mobilization is therefore an

incessant process that needs proper planning from initiation through implementation to evaluation.

#### 2.3:The Concept of Resources

While resources have been defined in various ways to suit various purposes, almost all definition accept that resources are necessary tools for the creation of wealth. According to Williams (1994), the word, "resources" developed out of the Latin phrase "re surgere" literarily interpreted as: again (re) to rise (surgere), or "to rise again." "Re surgere" developed into the French word "resource" defined as something that can be turned to for support or help; an available supply that can be drawn upon when needed; and/or means that can be used to an advantage. Hoxby (2004) defines resource as something that a country, an organization or an individual has and can use, especially to increase wealth; a thing that gives help, support or comfort when needed. Mayor (2009) provides a more comprehensive and detailed approach to the word by defining it to include: useful land or materials such as coal, or oil that exists in a country and can be used to increase wealth; all the money, property, skills that are available and can be used when needed; personal qualities such as courage and determination that are necessary in dealing with a difficult situation and books, films, pictures used by teachers and students to provide information.

Resources are the basic tools necessary in the effective performance of tasks and for the growth and development of human organizations. The constitution of a resource is determined by the uses to which it can be put. Generally, a resource is identified by its ability to solve problems and yield more wealth when applied to economic terms. Resources are classified as being visible when they exist and can be quantified in form of human beings, land, money, property, books and pictures and so on. Resources are invisible when they exist in form of skills and physical dexterity and can only be measured in terms of productivity

levels and quality of work. It is difficult to determine who has what skill and what level of physical manipulation if tasks are not assigned to human beings.

The human beings who possess skills and the physical ability constitute human resources. The other resources that can be applied by people in the production process form material resources. Black (2003) separates human capital from other resources by describing it as: the present discounted value of additional productivity, over and above the product of unskilled labour of people with skills and qualifications. Human capital may be acquired through explicit training or on-the-job experience. Like physical capital, it is liable to obsolescence through changes in technology or tastes. Unlike physical capital, it cannot be used as collateral for loans. Human capital is therefore consciously created through education and training.

While accepting the general definition of land as the factor of production provided by nature, Begg (1994) believed that quality of land can be improved by the application of human expertise. Thus, a farmer is able to produce better land by applying labour to extract weeds or fertilizer to improve soil balance. Similarly, in the field of education, professionals are required in the effective manipulation of educational resources to achieve the desired balance in production of educated labour. According to Black (2003), the cost of creating human capital falls mostly on individuals or their families, philanthropic institutions or state.

Financial capital is a significant resource often assumed to be a part of physical capital. It is actually the basis for procurement, utilization, and maintenance of all types of resources. Without a strong financial base, it will be difficult to produce the right types of goods and services in desirable quantity and quality. Since the human economy is monetary, the availability of funds in any organization or institution is vital to its productive process and quality of its products and services. Defining finance as the science of controlling money,

Ogbonna (2001) saw finance as a body of facts, principles, and theories dealing with the raising and using of funds by individuals, business firms, educational institutions, and governments. It is in this background that the research set out to assess the relationship that exists between financial resource mobilization and internal efficiency of schools.

All school system activities are carried out within a time framework that may be limited to minutes, hours, days, and months or even years. Time mismanagement constrains the effective achievement of the objective for which a particular educational resource is required. Effective resource management will be difficult to achieve in any school where time is disregarded.

Despite the type of activity to be performed, time is the most crucial resource first to be considered. From primordial to modern administrative settings challenged by technological innovations time still remains major determinant of successful or unsuccessful completion of task. Every activity following due processes of life is facilitated by appropriate allocation of time. Time determines the imperativeness of any other resources in accomplishing organization set out objectives and goals. Without time management the efficient and effective use of all resources will be impossible. Mullins (2005) points out 'that whatever, the attributes or qualities of successful manager, or the quality of subordinate staff, one essential underlying criterion is the effective use of time'. Hence, Drucker (1988) refers to time as 'the limiting factor for effective executives'. Therefore time management stands as an effective tool necessary for organization effectiveness in realization of set out objectives and goals. Its role in school effectiveness could be more revealing.

In economics, all resources are inadequate relative to the available demand and pressure. This makes it exigent in economic sense for consideration of time as the scarcest resource administrators must look out in the day to day administration of their organization. Based on

this Drucker (1988) emphasized that time is a 'unique resource' which cannot be rented, hired, bought or otherwise obtained in large amount. He maintained that time is totally irreplaceable and everything requires time and its supply is totally inelastic. To him, time is a valuable resource one has to efficiently use to accomplish stated objectives or goals of an institution.

In both private and public profit organizations time is crucial and lead resource in effective running of the system. For example the opening and closing periods of work is based on the individuals and organization agreed time. There must be maintenance of status quo especially the ideographic and homothetic dimensions to avoid time conflicts between the employer and the employees. Time itself cannot be rented, hired, bought or obtain more time, but only the personnel or services can be rented, hired or bought for the specific time (Drucker,1988). For instance in business organizations personnel are paid for extra time used as overtime because it is the personnel that is rented, hired or bought for the time used. Incidentally, this practice is witnessed in the school organization where an extra mural class is privately organized for that purpose the teacher could be paid for the services rendered. An effective school administrator ensures that school planned times are not arbitrarily abused by staff and as a bureaucratic organization time management is necessary for enhancing productivity.

Time management philosophy tends to ventilate the importance and appropriate utilization of times a resource in accomplishing organization objectives and goals. Managing time appropriately leads to achieving results easily with limited resources. Consequently, any productive system, whatever its structure, human, technology or financial support requires efficient and effective time management procedure. To improve quality of school activities requires cooperative effort of all members through time management. Obviously time is very important administrative tool in carrying out daily duties by the administrators, teachers, students, community and government. A time management plan enables effective

administrator to identify if he is using his time effectively and doing important activities with the highest energy levels in the system. The time required in accomplishing given task is carefully analysed; other resources are also mobilized within time to achieve the desired result. Based on this, Mullins (2005) refers time as one of the most valuable, but limited resource and it is important that managers (administrators) utilize time to the maximum advantage. For not realizing time as a scarce resource most administrators run out of time before expected result is achieved. Schools are time-bound institutions and impact of time as a resource must be pursued for efficiency to be attained.

Time management is also important for effective inspection and supervision of school in bringing the much needed quality. Effective time management ensures unambiguous objectives, proactive planning, well defined priorities and actions; participatory and successful delegation of activities. Nevertheless, time is continuum and all activities or roles performance depend on it whether voluntary or involuntary in avoiding conflicts. Organizing is the next stage after successful planning. Organizing time in its simplest meaning relates to putting time into jobs according to people, place or needs. In this regards, administrators involved in internal school administration must in this process assign role responsibilities to staff accordingly with targets. There must be date line for any administrator to have target met. Hence the school success is made easy or destroyed by extension of relations and services timely or untimely from the wider society.

Time management appropriately adopted by school administrators helps to improve standard, save costs, remedy poor situations, leads to value and above all, harmonizes organization focus. According to Lara (2003)' the time we have depends on the time we use'. In order to manage time successfully, administrators must have self-knowledge and set out goals to achieve. Such an awareness of what goals to be achieved helps to prioritize activities.

Planning school time involves adequate patterning of time according to activities in order to enhance role performance and accomplishing tasks within a set out period. Planning helps to avoid conflict among use of resources based on the fact that resources are limited including time. Planned time is important to avoid failure. It is a just-in-time approach that ensures errors detection and correction in time before advancing next stage of the process. The educational changes going on require proper control and management to assure quality timely, so that they do not have unpleasant effect on the system. Changes in the school system must be in line with timely societal needs. Reliably, Maduagwu (1998) assertion that 'education is one of the tools to effect a society's goal towards development' supports this reason. The school requires proper time management for good teaching and learning process to take place (enough time to plan enough time to implement). Therefore planners and administrators must budget and legitimate the time to accomplish set out goals as well as compare the total estimated time for expected maturity.

A survey by Abagi (1997) indicates that if the students' learning time is used optimally, there will be no need for coaching, and the private cost of education will be reduced drastically. At the same time, teachers who receive about 96.2 % in salaries from the recurrent expenditure of the Ministry of Education have to justify the salaries through a positive contribution to the development of education and the nation as a whole.

Information, another vital resource that complements the use of other resources, is critical in the effective management of any organization. Information is defined as "facts or details that tell you something about a situation, person, or event" (Mayor, 2005). Specifically, information is a service facility for applying facts or news, and law; it is a numerical measure of uncertainty of an experimental outcome (William, 1982). Adequate information and its proper management are central to effective decision-making (Opeke, 1984).

In light of the above analysis, two classes of resources can be identified. The first consists of concrete resources that can be physically quantified and their effect on education achievement measured in terms of their quantity. In this class of resources belong human resources, school plant facilities, funding, and instructional materials. The second class of resources, which consists of abstract resources such as time and information, can only be measured in terms of their effect on job performance. The research dealt more with the former than the latter. Good knowledge and the appropriate utilization of these major classes of resources are vital in the achievement of effectiveness in financial resource management in the school system, especially in the present context of global economic crises and a consistent national increase in monetary allocation to education. The school manager must be well informed of the existence of education resources and know when to collect and use such resources. He/she should also be able to adopt a satisfactory method that is suitable to the level of education at which he/she is operating. This research specifically dealt with the secondary level of education to assess the impact of the financial resources mobilisation strategies on student achievement and performance.

#### 2.4: The Need for Financial Resource Mobilization in Education

A resource is an asset which an organization can use to achieve a predetermined output (Nchor, 1998). Such would include time, space, equipment, money, land and water. Accordingly, resources can be classified as financial, material, and informational. The resources available can be used to create wealth which is eventually ploughed back to support the school budget and improve internal efficiency in education.

The financial resources at the school disposal can be exploited in order to supplement government and community contributions. It is worth noting that budgetary constraints can cause remarkable decline in the proportions of the gross national product (GNP) allocated to

education in the developing world (Psachoropolous, 1994.) Although the Government of Kenya has instituted FTSE, support from other sources is quite necessary (Republic of Kenya of Kenya, 2011). Earlier, Coombs (1988) had observed that rather than succumbing to pressure to abandon mass education, ideal social equity and participation through expanded high quality education, decision-makers should develop strategies like alternative resources for supplementing public finance for education. However, the capacity and ability of the schools to be self- supportive need to be assessed and documented.

Gravenir (1991) observed that emphasis on education in terms of allocation from the budget not only generated disequilibrium in socio-economic development ,but affected education adversely, in that the education system produces graduates at a higher rate than the economy can absorb resulting into educated unemployment. To release resources to other sectors he did recommend that cost sharing and generation of extra funds by institutions be encouraged. Nevertheless, the findings did not unveil the nature of the financial resources available to the schools for exploitation.

Acholla (1988) denoted that the parents' resources dedicated to education in Kenya were diminishing rapidly. The prevailing situation was such that school related expenses over burdened parents and guardians. According to the 2009 economic survey, about 55% of the households' income of a family in Kenya is spent on education (Republic of Kenya, 2009). Even with the FTSE policy, there still exist extra costs to the parents. To reduce dropout rates due to such costs schools could be made self- supportive through financial resource mobilization. However, there is a dearth of information about appropriate and efficient income generating activities in schools.

The Ministry of Education, in a consultative workshop with development partners underscored the need to explore sources beyond cost-sharing because of high poverty levels

(Republic of Kenya, 2003). Schools should exploit resources available to them to improve retention rates and ensure sustainability. Cataloguing of the financial resources in schools and assessing their potential contribution to school performance could be more revealing.

# 2.5: The Role of Resources in Education Management

The importance of resources in the management of learning institutions cannot be underrated. It is not possible to deliver effective education without relevant resources. A number of education specialists have highlighted this. As observed by Nchor (1998), instructional resources provide a solid basis for conceptual thinking; increase the propensity of the brain to retain information, make learning more interesting and taking care of learners individual differences. The difference made by availability and use of financial resources in schools is critical in improving the internal efficiency of education.

Finance as a resource, plays a crucial role in the development of education (Kosemani, 1995). This supports Fadipes (1990) opinion that proper funding and a good supply of qualified teachers can greatly improve the performance index of a school. In addition, it is important to note that the quality and quantity of resources available to any education system provides a basis for the assessment of the managerial abilities of an education manager. This is because even the most resourceful manager requires a resource base upon which to exhibit his ingenuity (Kosemani, 1995). The role played by financial resources on school productivity and efficiency therefore needed to be delved into. The term 'financial management' has a number of meanings including the administration and maintenance of financial assets. The process of financial management may also include identifying and trying to work around the various risks to which a particular project may be exposed.

The process of financial management is important at all levels of human existence, because every entity needs to look after its finances. From an organizational standpoint, the process of

financial management is the process associated with financial planning and financial control. Financial planning seeks to quantify various financial resources available and plan the size and timing of expenditures. In the business world, this means closely monitoring cash flow. The inflow is the amount of money coming into a particular company, while outflow is the record of the expenditure being made by the company in various sources. (Ogbona, 2001)

Financial Management System (FMS) has a specific structure with identity codes to show the following: where funds are spent, why funds are spent, what the money is being spent on, and what item the money is being spent on. Briefly, the financial management seeks to plan for the future such that a personal or business entity has a positive flow of cash. In education, financial management is critical for the acquisition and maintenance of all the disposable resources.

# 2.6: The Planning For School Financial Resources

The rationale behind planning for school financial resources relies in the need for ensuring effective expenditure and management. In fact, schools need effective and efficient expenditure management systems, capable of delivering resources to service delivery units, on a timely and predictable basis, whilst ensuring compliance with policy directives and expenditure limits.

A school like any other institution has a mission and goals to be achieved in a time bound limit. In this way, financial resources play the basic role. An effective and efficient use of financial resources is important in the application of scarce resources to the attainment of school's developmental objectives. Therefore, planning for school financial resources becomes a good exercise which shows clearly the sources of financial resources and the area of expenses. The information that it provides gives a look into how to achieve the school mission and objectives and where additional funds may be got from.

In fact, taking into account the fact that the school's current and future life is based on finance, there is a great need to put on it much emphasis so as to enable the school to run effectively its academic, administrative and technical services. Hence, school staff must understand and use financial information when they are delivering, monitoring, evaluating and planning activities and programmes. The school Board of Management (BOM) is also required to know how to oversee the finances of the school(Masese, 2005).

Indeed, planning for school financial resources provides an understanding of what is going on financially in the school. Financial statements are the starting point for school managers to plan for a better and reliable system to run and develop the school. Truly, the school may be earning much money through allowances, gifts and other earnings. However, there must be a control of how this money is spent by setting priorities on their spending; control immediate gratification in favour of important goals; and balance income, spending and saving. In short, knowing how to plan and manage the school's money is an important skill for the school manager because it enables him/her to: create the school financial plan, create the school budget, propose a school saving and investing plan, select strategies to use in handling credit and managing their debt, demonstrate how to use various financial services, and create a school insurance plan.

## 2.7: Evolution and Definition of Efficiency: The Production Function Theory

Different scholars have kept their divergent views about efficiency. Pradhan (1981) stated that the question of efficiency was raised for the first time by Frederick Taylor, when he wrote a book on the principles of Scientific Management. Taylor was partly responsible for the notion of universal applicability for he had said that his principles could be applied with equal force to all social activities; to the management of our homes; the management of farms; the management of the business of our tradesmen, large and small; of our churches, our philanthropic institutions, our universities, and our governmental departments. The same

claim had been with greater enthusiasm by Harrington Emerson who, in addition, placed less emphasis on the need for expertness and scientific training in applying scientific management and in achieving efficiency (Callahan, 1964).

A business is more efficient, when it achieved greater productivity at the same cost. Efficiency can then be regarded as both an end and a process. However, there is no single adequate measure of the efficiency of a school either absolute or relative and that there could be no combinations of measures, whereby, the exact superiority of one school over another can be expressed in a single term. So, the term efficiency was also regarded as the reduction of expenditure with the same or higher production and reduction of the unit cost (Pradhan, 1981).

However, scholars having a progressive orientation had raised the question about efficiency that determining efficiency only on the basis of inputs and outputs might not provide an ideal or optimum concept. The qualitative aspects of the product also had to be examined (Pradhan, 1981). In this respect, it was believed that the determining efficiency only on the basis of output would be like ignoring the social benefits of education. Thus, it would be like supporting the capitalist ideology of an educational system, which is purported to enhance the class system in society by sorting out the deviants from the group. The ratio between input and output does not reveal the effectiveness of the performance. In this context, progressive scholars stressed more on the qualitative aspects of efficiency.

That notwithstanding, scholars in general were very much concerned about the indistinctness of measuring the effectiveness of the program. In a nutshell, this is something like medicine, a treatment, the end of which is embodied in a person and becomes a part of that person's characteristics. Sheerens, (1999) presented his views that the efficiency is the sufficient productivity at the lowest possible cost. He also stated that the effectiveness of efficiency

depends on inputs that are readily expressed in monetary terms, such as teacher's salary, teacher's experience, and teacher-student ratio, teacher's qualifications and per student expenditure.

Hanushek (1999) overall conclusion is that educational expenditure is not consistently related to achievement. He also suggested that it would take greater variation in inputs to expect important effects. Hanushek, (1986) also stated that when one wishes to construct educational indicators for international comparison, it would be proper to include variables like per student expenditure and teacher/student ratio, since these might show significant variance between countries. Pradhan, (1981) described efficiency as the relation between input and output that can achieve the desired results (output) with minimum inputs. In 1980's and beyond, the concept of efficiency has remained stable showing no significant variation from the notion of the earlier scholars.

The standard definition of efficiency is that efficiency entails securing 'maximum inputs for any given quality and quantity of service provided'; or the 'maximum output for any given set of source inputs'. However, this definition does not imply that resources are used in a socially optimal way, since to make such a judgment requires output to be valued (Levacic, 1995). Similarly, he argued that efficiency is achieved when a given quantity of outputs is produced at minimum cost. He also presented a view that, the issue of efficiency cannot be separated by the distribution of costs and benefits, since making working practices more or less efficient often implies increasing work effort or changing working practices.

According to Sheerens, (1999) efficiency may be defined as the maximum output against lowest possible cost. In other words, efficiency is effectiveness with the additional requirement that it is achieved in the least expensive manner. Simmons(1986) defined the word 'efficiency' in terms of' effectiveness'. He argued that effectiveness is also defined in

terms of efficiency in using resources and of the consistency between the school's purposes and institutional practices, which together enhance the achievements of the pupils. In this vein, he commented that an effective school thus adds extra value to its students' outcomes comparing them with the outcomes of other schools with similar intakes.

Levacic, (1995) argued about three sources of efficiency, which included; selecting from a given state of technical knowledge input mixes which are technically efficient; choosing the combinations of inputs for a given output, minimizing total costs; or maximizing output for a given cost; innovation or improving technical knowledge so that new and more productive production methods would become available or new products can be created which satisfy consumers' wants better. The first and third sources are improvements in productivity.

In relation to the local management of schools, technical efficiency involves finding more efficient resource meant to produce given educational activities, innovation efficiency relates to finding new resource mixture or new educational activities which increase the productivity of the schooling process, while price efficiency concerns finding cheaper combinations or productive mixture of inputs. Above mentioned three sources indicated that the second source is linked to the financial aspect of efficiency. So, the source of efficiency for the present research will be in line with the first and the third sources.

## 2.7.1: Efficiency of Education

Educational efficiency is divided into two broad categories. In this context, Coombs (1968) indicated that efficiency was determined by a combination of many factors. He divided efficiency into two categories: external efficiency and internal efficiency. External efficiency means the benefits accruing to the students and to the society from earlier investments. On the other hand, internal efficiency is the relationship between the system's outputs to its inputs. IIEE (1998) mentioned that the external efficiency of an education system involves

the interface between academic and vocational education and between school and work. It looks at education as a tool rather than an end in itself, as a feeder into the economic stream rather than a reservoir of knowledge, in terms of earning potentials. On the other hand, internal efficiency, deals with the flow of students through the system with minimum wastage and the quality of learning achieved within the classroom. Wastage in the flow of students is manifested quantitatively in the form of dropouts and repetition, while the quality of learning is determined by the inputs and outputs of the education system. Psacharopoulos & Woodhall (1985) stated that the external efficiency of schools may be judged by how well schools prepare pupils and students for their role in society, as indicated by the employment prospects and earnings of students. Such measures depend on external criteria rather than on results entirely within the school.

They further described internal efficiency as concerned with the relationship between inputs and outputs within the education system or within individual institutions. They also stated that output in this case is measured in relation to internal institutional goals rather than the wider objectives of society. Since internal efficiency is measured in relation to the objectives of education, judgments about efficiency will depend on the way educational output is defined and measured (Psacharopoulos, 1995).

In a nutshell, the external efficiency refers to the relevance of the courses to the overall objectives of national education and to anticipate jobs for those who complete the courses. Whereas, the internal efficiency of the education system is defined as its ability to educate the greatest number of students in the shortest time and with the least use of financial and human resources. It is easily understood that progressive scholars' emphasis was on external efficiency, whereas neo-classical economists dealt with internal efficiency. It would be logical to say that though determining efficiency in both ways seems to be beneficial in every sense, it definitely involves numerous data and expertise, which appear to be small in

quantity and poor in quality. Indeed, this research attempted to focus on the internal efficiency of secondary school education system and its relationship with financial resource mobilization in the area of study.

Internal efficiency of education system can be defined in several ways. Scholars stressed their views in their own words, such as: According to IEES, (1988), measures of internal efficiency reflect effectively how a part of the educational system uses available resources to achieve specified educational outcomes. It also indicates that internal efficiency might be considered to have two dimensions: the relationship between what enters and what exists in the various parts of the sub sector, and the relationship of quality to costs between entry and exit points.

Internal efficiency refers to the links between educational inputs (such as teachers, text books) and learning achievements (Haq, 1998). According to Sharma & Mridula (1982), internal efficiency of an educational institution involves going through a particular level of education with minimum wastage and stagnation and allocation of resources in such a way that the objective of producing qualitative manpower is effectively met. Pradhan (1991) argued that the internal efficiency of education generally refers to the simple intake and out – turn of pupils, and deals with the possible waste in the process owing to the dropouts and stagnation at various levels of education. On the other hand, how far the education system fulfils the manpower requirements of a growing economy is what is termed as external efficiency of education and may be thus both quantitative and qualitative. The quantitative external efficiency rests on how efficiently the education system is able to supply the required number of educated or trained personnel to the various sectors of economy. The qualitative aspect is concerned with the problem whether the manpower released by the education system meets the requirements of the job intended to be accomplished within the economic system.

As put forward by OECD (2001) internal efficiency deals with what happens inside the educational system; the optimal use of teachers and buildings, drop outs, stagnation and promotion from one grade or form to another, and transition from one level to another. Internal efficiency of an education system is concerned with the utilization of the available resources for improving the quality and quantity of education in best possible ways. Pradhan (1991) stated the internal efficiency of primary education is assessed in terms of the intake and out turn of pupils in the beginning and end of the schooling levels and the possible wastes in the process due to drop outs and stagnation as estimated for the different years under the study period.

The scholastic achievements of the students in the examination results is the output measure, whereas the input measures considered are the school cost, teachers' qualification, teachers' experience of teaching and the socio economic status of students. In conclusion, internal efficiency of an education system is defined as its ability to educate the greatest number of students in the shortest time and with the least use of financial and human resources. However, this study looked at the resource base of secondary schools and internal efficiency using the same mode of measurement of student performance in national examinations.

A perfectly efficient system is one in which a hundred per cent of students that begin go on to complete secondary education in a timely fashion. In reality, two important phenomena that block full efficiency in education systems; dropping out and repetition. Very inefficient systems have substantial numbers of students dropping out and repeating, which produces much lower proportions of timely completion. Repetition and dropout are interrelated phenomena. Students who repeat grades because they fall behind their peers and face growing opportunity costs have a greater tendency to drop out and not continue to subsequent education cycles. This implies that by reducing repetition, dropout should also decrease. Also, both repetition and dropout are closely related to education quality. Low levels of

learning in some cases force and in other cases encourage students to repeat and drop out. Thus improving education quality should also diminish both repetition and dropout. Effective mobilization of financial resources would most likely ensure reduced wastage in schools. Abundant resources will keep more learners in school and thus high retention rates and improved internal efficiency. The situation in Rachuonyo south sub county was the gist of this study.

#### 2.8: Financial Resource Mobilization Strategies

There are a wide variety of ways of financing educational investments. Governments which are sufficiently determined can devise strategies for shifting some of the financial burdens of education to individual students and their families through tuition fees or student loans, to employers through levies and payroll taxes or to local communities through self-help building or help with operation costs. In addition, they may devise taxes earmarked for education such as graduate or professionals surtax. All these are in realisation of the fact that central government funding is not only or necessarily the most desirable way to finance education investments (Psacharopoulos, 1985)

Globally, there are a number of means and ways of creating resources for learning institutions. Such strategies encompass the prudent use of existing school financial resources and mobilizing even more for sustainability. Kelly (1991), in a research conducted in Zambia observed that apart from public finance, other sources of financing education need to be considered. Such sources include, encouraging private entrepreneurs to develop private schools, establishing income generating schemes in schools, encouraging community-run schools and requesting for support from international development partners. The findings however, did not give premium to particular financial resource mobilization strategies and their likely prospects and problems

The World Bank (1998) recommended various strategies such as bearing education costs by students and their parents. It was further observed that institution related tasks assigned to non-teaching staff could be done by students to save costs. Nevertheless, the report did not delve into proper means of implementing such strategies without compromising the quality of teaching and learning.

Historically, Indian students used to solicit funds from the communities to pay their teachers. Christian (1987), found out that in the Caribbean Islands extra resources were raised by selling crops and animals, making furniture for sale, cooking food in large meetings and making clothes for sale, undertaking typing and word processing assignments. The fecundity of such attempts in Kenyan school system needed an assessment for rationalization and adoption.

Numerous schools in both developed and developing countries have found innovative ways to mobilize additional financial resources to support their activities, ranging from producing items for sale, running small shops to hiring out their facilities and expertise(Sigh, 1988).He however, noted that income-generating activities in most countries covered by United Nations Educational Social and Cultural Organization(UNESCO) tended to be opportunistic in their choice of activities, uncoordinated across education institutions and limited in scale.

For three decades after the founding of the People's Republic of China, public expenditures on education were consistently low in terms of both fiscal-effort and national-effort measures. The substantial increase in government expenditure on education in the 1980s represents a major turning point in public investment in education. But public expenditure on education in China today is still relatively low compared to higher-income countries. In order to develop human resources in support of further economic development, the Chinese

government had to keep on increasing public expenditures in education in the 1990s and beyond.

In China, creation of income in schools has its origins long before her cultural revolution. But from 1981, the program was incorporated into the Chinese government's five-year development plan with clear guidelines (Ngh, 2001). Although this experience resulted into many positive outcomes, increasing private sector competition combined with loss of government tax breaks led to close down of school- run factories. The Chinese situation was farfetched but can be used to streamline such innovations in Kenya.

Another distinguishing feature of the costs of education in the 1980s is the increasing importance of non-government expenditures on education. By 1991, total non-government expenditure accounted for almost one-half of total national resources for education. The increases in both government and non-government resources for education have resulted in high rates of growth in per-student expenditures in real terms, especially for primary and secondary education. The development of non-government sources has been an effective strategy for raising national investment in education in China. However, the significant progress in resource mobilization for education in the 1980s was also accompanied by large inequalities and inequities in education. There is also indirect evidence of widening disparities in recent years in China. There is certainly a dilemma between resourcemobilization and equality/equity objectives for education. This dilemma is rooted in the longstanding tension in divergent development objectives and strategies among leaders of the Chinese Communists Party. To the extent that extreme inequalities can provoke social unrest, there is a real need to reassess government efforts for mitigating the extent of inequalities in education. The place of NGOs in providing resources for supporting schools activities in Kenya became one of strategies considered in the study.

The Government of Kenya through Sessional paper number 6 of 1988 expressed the need to cost-effectively use the resources at the disposal of schools including land, finances, human resources, time, physical facilities and equipment to bring about efficient provision of quality and relevant education (Republic of Kenya 1988). The largest potential source of funds for schools is the payment of fees for tuition and related instructional services such as registration, examination, computers, and access to library services. There is a considerable variation ,both among institutions and regions in terms of these payment. To try and reduce the burden to the parents ,the Government of Kenya did commission the FTSE programme in 2008 (Republic of Kenyan 2008). However, the implementation of the same needed an in depth assessment on how other costs which are not included in the funds can be covered.

In a KIPPRA paper on cost reduction and financing options, the need for self-sufficiency by schools was emphasized (Ngware, 2007). Self-sufficient schools would focus on the entrepreneurial ability of their staff and students in order to maximize the returns to human and physical resources at their disposal. This will most likely enable the schools to create income to fund some of their activities and provide a practical learning experience to the students. However, facts need to be established to help formulate an entrepreneurship policy to guide the programmes. Olembo (1986) reported that skills acquired by students in Kenya could be used to earn money. This could help the schools subsidize education costs and sustain themselves in the wake of economic recession. An attempt to delve into the rationale and practicability of financial resource mobilization would be apt especially in line with Kenya vision 2030. Wesonga (1996) found out that income generating units could only cover 4% of school requirements in Kakamega District. Although the activities had a higher potential, their management was found to be wanting. Creating awareness and providing a policy framework could offer solutions to the inherent problems facing income- generating activities.

The UNESCO Country Programming Document on Kenya states that following the introduction of free primary education by the Government of Kenya in 2003, a 20 per cent increase in enrolment was registered in primary education, from 6.0 million in 2002 to 7.2 million pupils in 2003. The completion rate for primary school increased from 62.8 per cent in 2002 to 81.0 percent in 2007 (UNESCO, 2010). This called for concomitant expansion of the secondary sector albeit with financial costs.

The government of Kenya relied on the contribution of other stake holders to improve access to education to bridge the gap in access, equity and quality education. The Ministry Of Education Science and Technology report notes that, "Government, individuals, communities, the private sector and development partners, will jointly support the education sector" (MOEST 2005).

The Ministry of Education Science and Technology (MOEST) realized that assistance by NGOs was fundamental to alleviate the financial constraints the FPE had caused due to raised enrolment figures nationwide and the urgent need for more teachers, desks, classrooms, kitchens, boreholes and water tanks and books. The needy children could not meet basic needs like food, shelter and clothing as they enrol into secondary schools. Therefore the excitement of high enrolments was short lived in 2003 and by 2004 the reality was that MOEST went back to the drawing board and came up with a Sector Wide Approach Programme to secure funding for the Kenya Education Sector Support Programme (KESSP), and NGOs one of the suggested support partners that would help FPE to succeed. The overall aim of MOESTs Sector wide approach was to develop and secure funding for the Kenya Education Sector Support Programme (KESSP), which will be the basis upon which the Government, individuals, communities, the private sector, Non-Governmental Organizations (NGOs) and development partners, will jointly support the education sector (MOEST, 2005)

The Kenya Education Sector Support Programme was set to co-ordinate all sources of resources to schools (Republic of Kenya, 2005). Schools could have an option of getting into contracts and agreements with public and private agencies to sponsor different projects and programs. Students from poor families can get bursaries from the state and non-governmental organization and trusts. The effectiveness of the bursary schemes remain in doubt given an inefficient system (Ngware, 2007).

A study in Bungoma South sub county by Otidi (2013) found out that the amount of fees charged in secondary schools was influenced by the nature of the school income generating activities and other services offered by the school. The study also established that most schools had a problem in making fees collection. This situation has made schools not to benefit from economies of scale resulting from bulky purchases and investment which could have seen the benefit passed to the parents in form of reduced fees. The study recommends that improvement in fee payment should be made to enable the school make bulky purchases with surplus funds being invested in income generating activities enable savings and generation of supplementary funds which could see the benefit passed to parents in form of reduced fees. The study recommended the establishment of day schools since they charged lower fees compared to boarding schools.

There has been a major concern amongst stakeholders about the amount of fees charged in secondary schools. The fees are perceived to be beyond the reach of many households and are thought to be a major contributory factor to school dropout rates. The policy of cost-sharing in education adopted in Kenya in 1988 shifted a major burden of financing education to households leaving the government with the supply of teachers. Different schools developed budgetary plans peculiar to their needs resulting in varying fees structures. There was need to streamline fees charged in schools. The government therefore, came up with fees guidelines for different categories of schools; the guidelines were meant to restrain situations of

exorbitant fees in schools and bring about uniformity. The government insisted that schools had to levy uniform fees irrespective of their peculiarities. There was little success in restricting school budgets to government fees guidelines with school managements maintaining that schools could only attain observed levels of performance by levying fees higher than the guidelines.

A study by Masese (2005) found out that there is a positive correlation between: fees charged and performance at KCSE; fees and level of school participation in co-curricular activities and finally between fees and breadth of curriculum offered in schools. Secondly, the other findings were that there was no significant correlation between fees charged and student enrolment, fees and level of provision of physical facilities and between fees and student-textbook ratio. Thirdly, a majority of the respondents were of the view that fees levied should be determined at school level with the involvement of Boards of Governors, Parents Teachers Associations and the Ministry of Education. From the study it is therefore recommended that individual schools be allowed to develop their own fees structure. This will address the needs of each school while at the same time holding school managements accountable for the performance of their schools. Secondly, decisions on the amount of fees levied are determined at school level with the Ministry of Education's involvement for guided decision.

The study found out that the amount of fees charged was influenced by the nature of the school income generating activities and other services offered by the school. The study also established that most schools had a problem in making fees collection. This situation has made schools not to benefit from economies of scale resulting from bulky purchases and investment which could have seen the benefit passed to the parents in form of reduced fees. The study also recommended that improvement in fee should be made to enable the school make bulky purchases with surplus funds being invested in income generating activities enable savings and generation of supplementary funds which could see the benefit passed to

parents in form of reduced fees. The study recommends establishment of day schools since they charge lower fees compared to boarding schools. The study further recommends for similar study to be carried out in other areas to establish if the findings can be generalized.

Many countries in the world, Kenya inclusive have embraced the notion of basic education to include secondary schooling. On this basis the government of Kenya has introduced strategies aimed at improving access to secondary education, such as Free Tuition Secondary Education, opening of more secondary schools and addition of more streams to existing schools among others. However, in view of the diminishing resources and the growing competition for resource allocation among various sectors of the economy, the trend world over has been to reduce public spending on education so as to release more of the scarce resources to other demanding sectors of the economy such as health and infrastructure (Coombs, 1983). Consequently there is increasing pressure on parents and communities to increase their financial support in order to place their children in secondary schools. Due to growing poverty levels among parents the amounts payable to schools in form of schools fees are far way below what the schools require to run their programs effectively. This results to inadequate provision of learning resources in secondary schools. (Njeru & Orodho, 2003; World Bank, 1995). The final effect of under provision of resources is a lowering of academic performance in national examinations.

A study by Kinyua (2012) in Tigania East District found out that the main source of school funds was fees and funds from FSE although management of Income Generating Activities was still cited as a major challenge. Staffing topped the list of the most inadequate resource followed by physical infrastructure. This clearly showed the need for schools to generate additional funds through IGAs so as to enhance academic performance. The study showed that most IGAs were related to farming while few were based on hire of school facilities. The study established that income generating activities played an insignificant role in contributing

to school resources and academic performance, but noted that there was great potential to turn IGAS into a reliable source of additional funding for public secondary schools. Most income generating activities were farming related while capital shortage and lack of managerial capacity were the main challenges faced.

The study made the following recommendations to schools and Ministry of Education. That school managers engage relevant government officers within the district to help them identify the most viable income generating projects. The schools need to innovate and adopt appropriate technology to mitigate the challenges faced. Capacity building for school managers should be carried out in conjunction with the Ministry of Education. The study offered suggestion for further study on the perception of various stakeholders on income generating activities in public secondary schools, the role of income generating activities in improving academic performance in public secondary schools in other districts and a study on how involvement of students in income generating activities in public schools may affect their academic performance. It is in this background that the researcher went out to relate the resources mobilised through IGAs and other resource mobilisation strategies to school internal efficiency.

# 2.9:Summary of Literature Review.

The literature reviewed exposes the fact that the government and communities do not have enough financial resources to support quality and accessible secondary education. Further the schools have divergent resources which can be mobilized to cover some of the operation costs in order to improve internal efficiency of education. Cost effectiveness, cost reduction, cost recovery and income generating activities are identified as resource mobilization strategies. The schools are found to be experiencing numerous bottlenecks in using the available resources, however, the findings under review were not specific to the envisaged

area of research and no attempt was made to assess the various strategies in terms of effectiveness, problems and future prospects.

#### 2.10: Theoretical Framework.

The research used the Education Production Function (EPF) theory adopted from Dreeben and Thomas (1980). The EPF theory espouses that education outcomes are a function of inputs to the education process that are provided primarily by student families, students, community and schools. A variation of schools inputs is most likely to have an effect on the outputs.

Each factor of production would be subject to diminishing returns while all other inputs are held constant and results in successively smaller increments to the output (Cohn and Geske, 1990). Psacharopoulous (1985) gives an illustration of a simple function for the education as:

A= Achievements.

T=Teacher –pupil ratio.

B=books and other materials.

E= equipment.

The relationship comes out in a mathematical notation. If you let the vector of educational outputs be denoted by  $Q:q_1;q_2;q_n$ ; the vector of school related inputs  $X:X_1:X_2.....X_k$  and the vector of non-school inputs by  $S;S_1;S_2.....S_n$ ; then the generalized education production function is given by F(QX/S)=0 that is , once the level of non-school inputs are given, the determination of the expected outputs will depend on both the levels of school

inputs and the functional operator F which specifies the shape of the production function curve.

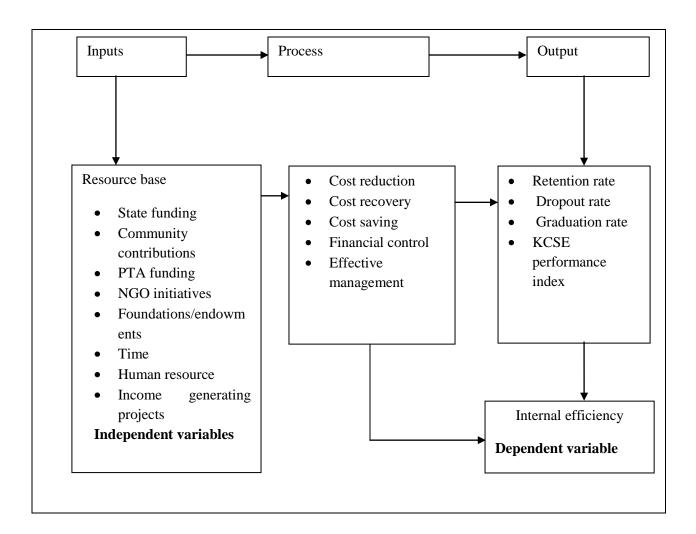
The "Education Production Function Theory" conceives schools as enterprises in which raw materials (students) and other inputs (teachers, time, books, libraries, laboratories, physical facilities and financial allocations) are combined to produce certain outputs. It is usually a function mapping quantities of measured inputs to a school and student characteristics to some measure of school output. Education at whatever level is costly and investment in education claims a substantial share of national resources in most countries. Besides the direct costs, there are private and social indirect costs that are incurred whenever investments are made in education. In order to assess the efficiency of an education system, one must have knowledge of the effectiveness and quality of the variables that are used in educational processes.

The current study of financial resource mobilization took resources as inputs and the methods or strategies of manipulation as the process while the impacts they have on schools internal efficiency as outcomes. It is prudent to note that the research concentrated on the inputs, process and the outcomes. The theory was found appropriate for this study because it makes it easy to assess inputs, processes and predict outcomes. In essence it can allow for manipulation of the processes to give out appropriate results. However, the education industry is far different from other plants in scope and character and further, one is faced with the difficult problem of multiple outputs in the production process. Essentially, educational outcomes are not directly linked to inputs. Again, measurement of some of the educational outcomes like attitudes is quite subjective. Nevertheless, the research overcame the setbacks through use of proxy quantities and holding some of the factors constant.

## 2.11: Conceptual Framework.

A conceptual framework is a diagrammatic relationship between the dependent and independent variables of a study Orodho (2009; 120). In the current study, figure 2.1 depicts the envisaged relationship between the dependent and independent variables.

Figure 2.1: Conceptual Framework illustrating the relationship between financial resource mobilisation strategies and internal efficiency



Resources available in and around the schools can be used to create wealth which is eventually ploughed back to support the budget and ensure internal efficiency in schools. As a process, resource mobilization entails all attempts to exploit both physical and human aspects of the school to meet educational outcomes. The conceptual framework explains how

the inputs (school resource base) and processes (resource mobilization strategies) interact to ensure outputs (internal efficiency). This is in line with the education production function theory which sees the learners enrolled into a school as inputs and the school graduates being outcomes.

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1: Introduction

This section discusses the methodology used in the study. The discussion is presented in terms of research design, target population, sampling techniques and sample size, research instruments validity and reliability; data collection procedure and data analysis techniques.

# 3.2: Research Design.

The study adopted the descriptive survey design that had both qualitative and quantitative aspects. The quantitative data was expressed ratios and percentages and presented on frequency tables. The qualitative data appeared in form views and opinions. According to Mugenda & Mugenda (2010), the survey design enables a researcher to investigate the status of a given phenomenon, compare the status with the expectation and suggest ways of improving the condition. Further, survey method allows for collection of data from a large number of people and relies on individual self-reports for their knowledge, attitudes or behaviour. The purpose of a survey research is to provide information that describes existing phenomenon by asking individuals about their perceptions, attitudes, behaviours or values. This design was therefore relevant to this study because it was through examining the head teachers' self-reports, their knowledge, attitudes, perceptions, beliefs and values that the researcher found out the status, prospects and challenges of financial resource mobilization strategies in public secondary school management and development. The dependent variable was internal efficiency measured in terms of retention rates, repetition rates and performance in KCSE. The dependent variables used in the study were five in number. These included

user fees charged, government subsidy, income generated from school activities, student labour savings and community contributions all measured in Kenyan shillings.

# 3.3: Location of the Study

Rachuonyo South sub-county where the research was undertaken is located in South Western part of Kenya. Rachuonyo Sub County is one of the six sub-counties in Homabay County. It is about 945km² in terms land area with a population of 307,126 according to the 2009 census. The sub-county has unevenly distributed rainfall, which makes it food deficient. The development challenges facing the region include high poverty levels, high HIV and AIDS prevalence, environmental degradation and gender inequality. Forty per cent of the total population is in the age bracket of 15-29 years (Republic of Kenya, 2011). This therefore implies that the government and other development partners should invest much of their resources in programs that can generate enough income and wealth to cater for the education and employment demands of this group. Rachuonyo South District had a transition rate of 62.5% against a national value of 73.3 per cent. Secondary school facilities therefore needed to be expanded to meet the goal of Education for All (EFA) by the year 2015. (Republic of Kenya, 2013).

The sub-county was chosen for this research because of a number of reasons. Firstly, the area had a variety of human and economic activities which could be used to mobilise resources for enhancing internal efficiency of the schools. Secondly, the area had divergent physiographic regions which determine the income generating activities which are available to the schools. The opportunity cost of schooling is dependent on the sources of money available to the learners when they don't go to school. Thirdly, people living in the area put a lot of premium on education due to the fact that the population density is quite high making agriculture difficult as most land is put under settlement. Education is therefore viewed as an elixir

among the poor in this region and how available resources can be mobilised to impact on internal efficiency of the schools was found to be wanting.

## 3.4: Target Population

Rachuonyo South had eighty eight schools according to the records at the sub-county Education Office as at the time of the study. Out of the eighty eight, twenty schools were offering boarding facilities while the remaining 68 were day schools offering lunch programs. The boarding schools had a wider catchment area since the students were sourced from beyond the county. On the contrary the day schools were categorised as sub-county schools because the students came from within the local sub-county. To give them ample time the schools organised for them lunch at a cost. Of the 20 boarding schools eight were boys only, six were pure girls while the remaining were mixed. In terms of physiographic regions 22 of the schools were in a drier zone making them prone to the vagaries of climatic conditions. Nevertheless, the remaining 66 schools lie in the rain fed region exposing them to more human activities. The study targeted all the 88 schools for reliable information.

## 3.5: Sample Size and Sampling Procedure

As already indicated, Rachuonyo South sub-county had 88 public secondary schools. To arrive at a scientifically reliable sample of schools used during the study, the following formula was applied;

$$n = \frac{N}{1 + N(0.0025)}$$

Where n is the actual sample size, N the target population with 0.05% level of confidence. (Yamane, 1967; Israel, 2009). This gave a sample size of 72 schools.

A stratified random sampling technique was used for the study. This technique was appropriate to this study because schools are classified in different groups. Amongst them are day and boarding schools, developed and developing schools. The schools to be used in every category were randomly selected to ensure representation and equal distribution of chances. The research targeted the principals alone because they are the accounting officers and other likely informants like bursars and accounts clerks are all answerable to them.

#### 3.6: Research Instruments

The study used a questionnaire, interview schedule, observation schedule and a documents analysis guide. The questionnaire was meant for the head teachers, while the interview schedule, observation schedule and documents analysis guide were used by the researcher to take and confirm records from the schools. The questionnaire contained questions on the different financial resource mobilization strategies, their contributions, challenges and likely effect on retention, repetition and KCSE performance.

#### 3.6.1: Instrument Validity

Validity is the extent to which an instrument measures what it purports to measure (Mugenda, 2003). It ensures the effective use of appropriate indicators to measure different variables. The validation process ensured face, content and construct validity of the instruments. Face validity refers to the appeal and appearance of the instrument, that is, the instrument should appears as if it is measuring what it should measure, in this case strategies of financial resource mobilization in public schools. Content validity refers to the representativeness of instrument items as they relate to the entire universe of content being measured while construct validity refers to the accuracy of the instrument in measuring what it should measure (Kathuri & Pals, 1993).

A pilot study was done in 8 schools (10% of target population) in the neighbour sub-county of Rachuonyo North to reduce the effect of biasness and redundancy during the actual research. The responses were used to validate the items in both the questionnaire and in the interview schedule.

Research methods specialists from the faculty of education were consulted to ensure face and the construct validity of the questionnaire items (Kerlinger, 1973). Specialists in the area of resource mobilisation were used to appraise the content validity of the instruments. Further, in constructing the final instruments, the researcher made the items as relevant, objective and clear as possible which in essence improved their validity. The researcher finally proof read the items and effectively eliminated the systematic errors which could have been due to poor validity.

# 3.6.2: Reliability of Instruments

Reliability is defined as the extent to which a questionnaire, test observation or any measurement procedure produces the same results on repeated trials (Nunnall and Bernstein, 1994). The study applied the test-retest method to establish the reliability of the items in the questionnaire. The reliability coefficient r was computed using the Pearson's product moment correlation coefficient. Accordingly, r was given by the formula below:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{\left[n\sum x^2 - (\sum x)^2\right]\left[n\sum y^2 - (\sum y)^2\right]}}$$

Where

x is the responses of the first administration

y is the responses of the second administration.

The questionnaire items were thereafter reassessed, ambiguities corrected and redrafted for more clarity and appropriateness after getting a Pearson's correlation coefficient of 0.70 which was considered acceptable (Mugenda & Mugenda, 2010).

#### 3.7: Data Collection Procedure

Before proceeding to the field, an introductory letter was obtained from the post graduate school of the University of Nairobi. This helped in procuring a research permit from the National Council of Science, Technology and Innovation (NACOSTI). The permit authorised the researcher to collect information from the public secondary schools in Rachuonyo Sub County. In order to collect the required data, the research assistant was trained on the key terms used in the instruments in relation to the main objective of the research. All the questionnaire items were discussed with the research assistant. To create a good rapport with the respondents, the research assistant was given an introductory letter which was used to administer and collect the questionnaires. A delivery and collection method of data collection was used since it helps in controlling the number of respondents and any source of possible biasness at this stage in addition to increasing questionnaire return rates. The researcher visited the schools and conducted a situational appraisal and documents analysis for verification of facts and figures. All the 72 schools sampled schools were visited to administer the questionnaires. Within three weeks the researcher and the research assistant had collected all the questionnaires which were not filled on delivery. A total of 61 fully filled in questionnaires were returned amounting to 84.6%. The return rate was high enough to ensure an objective and reliable study sample.

## 3.8: Data Analysis

The data collected from the interview schedules was qualitative in nature and was analysed through transcriptions and thematic analysis. The dominant themes were captured and narrated within the text. The data from the questionnaires and the document analysis were of quantitative in nature and were coded and tabulated for computer analysis. From a coded sheet, entries were made into the Statistical Package for Social Sciences (SPSS) software to aid in data analysis. Coding was done to enable the researcher find all the information regarding the variables of interest to the study. Internal efficiency measured in terms of performance index in KCSE along with repeater and retention rates was the dependent variable. Independent variables included finance sources like amount of user fees payable, income-generating activities, endowments, state funds, community contributions, PTA funds, time management, and human resources. Tabulations were made of both independent and dependent variables one after the other. To establish relationships between variables, cross tabulations were done. Correlation analysis was used to test the association between resource mobilization strategies and school internal efficiency. Regression analysis was used to establish the strength of relationship between the variables to come up with appropriate policy options relevant to resource mobilization strategies in public secondary schools. Both qualitative and quantitative data were interpreted to help meet the objectives of the study.

#### 3.9: Ethical Considerations

The respondents were assured of confidentiality and the responses were only used to the extent of achieving the objectives of the study. No information related to resources in schools was leaked out or used without the authority of the school. The researcher shall ensure that the findings of the research would only be used for enhancing knowledge in the area of resource mobilisation and internal efficiency in public secondary schools.

#### **CHAPTER FOUR**

# DATA ANALYSIS, INTERPRETATION AND DISCUSSION

#### 4.1: Introduction

This chapter presents the description, the analysis, interpretation and discussion of the data collected. It also provides a thorough discussion of the findings as they relate to the reviewed literature. The sequencing of the chapter is based on the stated objectives of the study. Some key areas in this chapter includes the measures of internal efficiency of education, the financial resource mobilisation strategies, the effects of the resource mobilisation strategies on internal efficiency of the schools, challenges of resource mobilisation strategies in schools and mitigation attempts and the relationship between resource mobilisation strategies and retention rates, repetition rates and student performance. A discussion of the findings in relation to other researches comes at the end of this chapter.

## 4.2: Descriptive Statistic: Dependent and Independent Variables

Table 4.1 shows the descriptive statistics values including the mean, the minimum the maximum values and the standard deviation of the variables. The variables include performance which was measured through a one to twelve points scale as the dependent variable, while the independent variables included user fees, funds raised by communities, money from income generating activities, government funds, and savings from using student labour in schools. The independent variables were measured in terms of Kenyan shillings.

Table 4.1: Descriptive statistics of the research variables

Variables	Perf(points)	User	Community	IGAs(Kshs)	FSE(Kshs)	Student
		fees(Kshs)	funds(kshs)			labour(Kshs)
Frequency	61	61	61	61	61	61
Mean	5.2467	5359399.18	1203606.55	95491.80	2529750.33	109180.33
Std Deviation	1.2580	10165730.90	1952423.09	122640.07	1967481.44	84504.34
Minimum	2.93	420000.00	80000.00	5000.00	615900.00	60000.00
Maximum	9.59	64711000.00	10000000.0	500000.00	10675600.00	360000.00

**Source: Author computation** 

It was realised that the performance of the schools ranged between an index of 2.93 and 9.59 with a mean performance of 5.2467. The performance of the schools in KCSE was average in relation to the national mean during the period under consideration. With a standard deviation of 1.258 the performance was normally distributed. The schools were able to collect kshs. 5,359,399.18 on average, with the highest receiving shs. 64,711,000 and the lowest being kshs. 420,000 per year. With a standard deviation of 10,165,730.90 the total fees collected by the schools is quite divergent given that the boarding schools which charge high fees are also able to have relatively high fees completion rates. It was found that the money collected through community sources ranged from kshs. 80,000 and 10,000,000 per annum with a mean of kshs. 1,2036,06.25 and a standard deviation of 1,952,423.09. This means that there is a great divergence between schools in relation to their ability to mobilise funds through harambees. Schools with high enrolments are able to raise more funds since the amount is collected per child. Looking at income generation activities the amounts raised ranged between shs. 5,000 and kshs. 500,000 with a mean value of kshs. 95,491.80 and a standard deviation of 122,640.07. It was clear that this strategy had not been fully exploited however some of the income raised by the school could go unrecorded in the books of accounts. The

free secondary education funding done in terms of school enrolment lied between a minimum of kshs. 615,900 and a maximum of kshs. 10,675,600, with a mean disbursement of kshs. 2,529,750.33 and a standard deviation of 1,967,481.44. Finally, schools could save between shs. 60,000 and 360,000 per year by using the labour of the learners in performing some menial activities in schools. This amounted to ksh. 109180.33 and a standard deviation of 84504.34. There was a relatively low divergence between labour savings received by the schools.

## **4.2.1: Classification of Schools**

The research involved the public secondary schools in Rachuonyo South Sub-County of Homabay County. Majority of schools (60.7%) were in the category of day with lunch programmes, 24.6% had both day and boarding facilities and 14.8% were exclusively boarding as presented in table 4.2

**Table 4.2: School category** 

School type	Frequency	Percent
Boarding	9	14.8
Day and Boarding	15	24.6
Day with lunch	37	60.7
Total	61	100.0

This meant that all the schools used in the study needed extra resources to cover for non-tuition expenses even with the implementation of Free Secondary Education program which takes care of tuition and general administration only.

#### 4.2.2: School Enrolment

The respondents were asked about their total student enrolment and the findings were as shown on table 4.3

Table 4.3: School enrolment

Range	Frequency	Percent
<200	36	59.0
200-400	15	24.6
>400	10	16.4
Total	61	100.0

The overall picture indicates that most of the schools (59.0%) experienced an enrolment of less than 200 pupils meaning they were generally single streamed. This was followed by double streamed (24.6%) with an enrolment of between 200-400 pupils while the remaining (16.4%) recorded an enrolment of more than 400 pupils (3-streamed and above). School enrolment determines the resource base of a school since the more the number of students the more fees a school is likely to collect. Also, schools with more financial resources will not only acquire more learning resource but will enjoy the advantages of economies of scale. The school size determines other quality of education aspects like teacher/student ratio and textbook/student ratio.

## 4.3: Measures of Internal Efficiency the Schools

Internal efficiency of education entails the process of movement of students through the school cycle over a specified period of time (Wanjala, 2002). In the turn of a school year, some students will move to the next grade, others repeat the same class while some leave the school all together. At the final grade, a number would finally graduate from a particular

cycle of education. As such, internal efficiency of education is measured through using grade survival, repeater, and drop-out rates as well as graduation rates. The survival rate expresses the proportion of students who move to the subsequent grade in the subsequent year. The higher the proportion, the more internally efficient a school would be. The grade repeater rate establishes the ratio of those who remain in the same grade in the subsequent year. When a higher proportion of students repeat a class then the system is said to be internally inefficient. The reason being one student using double resources learning the same content in the subsequent year in addition to taking longer to accomplish a given cycle of education. Also, repetition creates inefficiency in terms of overcrowding the repeated grade but above all it denies prospective learners to join the school system especially at the entry points. Drop-out rate on the other hand is the proportion of the students who leave the school system before completing a given education cycle. The higher the drop-out rates the lower the internal efficiency of an education system. Dropping out from school is considered as inefficiency because the already committed learning resources go to waste while the learners who dropout are limited in prerequisite knowledge and skills needed in the wider economy. Once the learners reach the terminal grade they should be compared to those who entered the grade at the initial stage giving the cohort wastage rate. The high the cohort wastage rate the low the level of internal efficiency for more learners will not finish at the appropriate time. Due to examination regulations some students might not graduate even after sitting for the examinations. Finally internal efficiency of a school is determined through the performance index in the national examinations. It is a measure of the quality of school products in terms of academic achievement. As such, the higher the performance index of a school the higher the internal efficiency and vice versa.

To establish the state of repetition in the schools as a measure of internal efficiency the responses were as indicated in table 4.4.

**Table 4.4: Number of Repeaters** 

Range	Frequency	Percent
None	10	16.3
1-10	20	32.9
11-20	15	24.5
21-30	14	23.0
Above 30	2	3.3
Total	61	100.0

Most of the schools, 32.9% had an average of 1-10 repeaters. This was followed by 24.5% who had between 11-20 repeaters. Those who had between 21-30 repeaters were 23.0% while 16.3% indicated no repeaters. The remaining 3.3% had above 30 repeaters. This meant that repetition was a common practice in the schools. Repetition can be voluntary for those who would like to improve their content mastery and performance in terminal exams. On the other hand it could be due to external forces created by teachers and school administration to ensure schools achieve high mean grade.

#### 4.3.1: Flow of Students in the Schools

The term flow is used in educational economics to mean the movement of students from one grade to another in the subsequent years. There are three ways of movement in an education system. Once enrolled, a student can move quite smoothly from one grade to another. On the other hand a student can be faced by hiccups thus unable to move through the cycle. For instance a student may be forced to repeat a class or if it is unbearable he/she may be pushed out of the system as a drop-out. In essence a student can therefore survive, repeat or dropout. The flow of a cohort of students through an educational system is either by

promotion, repetition or drop-out. These are determined by school factors, socio-economic or resource factors and natural factors like mortality and morbidity.

According to the respondents repetition is caused by a number of factors as shown in table 4.5

Table 4.5: Causes of repetition in the schools

Cause	Frequency	Percent
Strict promotion policy	42	68.9
Set cut-off marks	14	23.0
Parental preference	12	19.7
Student preference	6	9.8
Limited school space	51	83.6
Premarital pregnancy	30	49.2

A strict promotion policy in schools was mentioned by 68.9%, whereby those who attain a certain mark are denied a chance of proceeding to the subsequent grade in the subsequent year thus repeating. Those who fail to attain required cut-off points are enticed to repeat the terminal grades. This was mentioned by 23% of the respondents. This happens to form four candidates who are determined to join the public universities through state sponsored program. Parents and teachers also advise weak learners to repeat in order to join the next grade with more prerequisite knowledge and skills as indicated by 19.7%. Abject poverty may give rise to illness, malnutrition and chronic absenteeism leading to repetition if the children have to continue with learning as said by 29.5% of the respondents. A total of 49.2% of the respondents asserted that girls who conceive while in school are likely to repeat a grade once they deliver and readmitted to school. Finally, 83.6% of the respondents saw an excessively academic school curriculum which is inclined to preparation of a minority of

students for secondary and higher education. This results into repetition at the pre-exam grade as schools struggle to post competitive national exam results.

A number of learners would drop-out of the schools because of the following reasons which were mentioned by the respondents as seen on table 4.6

Table 4.6: Causes of dropping out of the schools

Cause	Frequency	Percent
High opportunity cost	28	45.9
Early marriages	40	65.9
Forced repetition	10	16.4
Low school density	9	14.8
High direct cost of education	46	75.4

High opportunity cost of schooling for poor families was indicated by 45.9% as a cause of dropping out of school. Going to school denies the poor families a source of income for the children can work as house helps and farm labourers to support their families. This leads to poor school attendance and thus dropping out as money becomes more attractive. Girls who conceive get discouraged and drop-out of school as others opt for early marriages according to 65.6% of the respondents. Another 16.4% of the respondents indicated that academically poor students who are forced to repeat a number of classes get discouraged and would easily drop-out in an attempt to avoid peer embarrassment. Schools which are far apart expose students to long distances and would therefore drop-out due to shear fatigue as reported by 14.8% of the respondents. A very large percentage (75.4%) of the head teachers said that students dropout due to high direct cost of education which they cannot afford due to high poverty levels.

The number of students in a cohort who complete a given educational cycle in a school is generally accepted as a measure of its output. Educational planners consider school flows in relation to a given sequence of transitions within a prescribed period of time. Thus, unless stated otherwise, students entering a given cycle are expected to complete their studies within the duration of that cycle. In this context, dropping out is then wastage of resources even if prior to dropping out, the learners had gained some basic knowledge which raised their level of educational attainment. It means underutilisation of already committed resources like teachers and classrooms. Similarly, repetition of a grade prevents other children from entering the school as well as causing overcrowding and thus increased educational costs.

The first measure of internal efficiency to be considered was Grade to Grade Survival Rates (GGSR) which is computed as below;

$$GGSR = \frac{N_{k+1}}{N_k}$$

Where N is total enrolment in a class, k is the grade and t is the time/year.

From the values on table 4.7 the grade to grade survival rates from form one to two in 2010 would be 0.9359 meaning that nearly all the students enrolled in form one in 2009 were promoted to form two.

Table 4.7: Flow of students in the schools

Year/form	Total enrolments			
	2009	2010	2011	2012
I	2574	2671	2730	2786
II	2283	2409	2559	2643
III	2174	2370	2256	2342
IV	2314	2046	2025	2162
Total	9345	9496	9570	9933

With a high survival rate a school system is said to be internally efficient because very few students would have repeated or dropped out. In essence secondary schools in the area of study were found to be internally efficient between form one and two.

The second measure of internal efficiency established was Grade to Grade Drop-Out Rate (GDR) which measures the withdrawal of students from a level of education. Dropping out means leaving before the completion of a given stage of education or leaving at some intermediate or non-terminal point in a cycle (Wanjala, 2002)

This is the number which cannot be accounted for after the number promoted, and those repeating have been deducted from the original enrolment in the preceding year, divided by the original enrolment in the preceding year. Mathematically it is represented as;

$$GGDR = \frac{N_{k} - \left(N_{k+1} - R_{k+1}\right) + R_{k}}{\sum_{t=1}^{N_{k}} N_{k}}$$

Where N-enrolments, k-grade and t- time/year

For instance, in the area of study the data on total enrolments were as indicated in the table 4.7. The grade to grade dropout rate between 2012 and 2013 was 3.8%. The working is shown below.

$$\frac{9840 - (10190 - 352) + 337}{9840}$$

$$= 3.8\%$$

The third measure of internal efficiency of the schools was Crude Cohort Wastage Rate (CCWR) which is symbolically represented as:

$$CCWR = \frac{N_t - N_{k+3}}{N_k}$$

Where N-enrolments, k-grade and t-time/year

That is the number of the students who enrolled at the initial stages minus those who have finally completed the cycle after four years. Taking the 2009 cohort, the crude cohort wastage rate was found to be about 16%. Using the values collected from the area of study indicated on table 4.7, mathematically the CCWR will amount to;

$$\frac{2574 - 2162}{2574}$$
$$= 16\%$$

The fourth measure of internal efficiency to be considered was Grade Repeater Rate (GRR) which refers to the total number of repeaters in the same grade in a subsequent year divided by the total enrolment in the same grade in the previous year.

Mathematically it is represented as;

$$CCWR = \frac{R_{k+2}}{N_{k+2}}$$

Where N- enrolment, k- Grade t- Year

From table 4.8 the repeater rates were therefore 3.94% and 3.54% in 2011 and 2012 respectively. The calculations are as done hereunder. On average therefore, the repeater rates were relatively low. This meant that the schools were internally efficient since lack of repeaters indicates that the students go through the system within the designated period of time hence appropriate use of resources.

**Table 4.8: Enrolments and repeaters** 

Year	2009	2010	2011	2012
Enrolment	9345	9496	9570	9933
Repeaters	-	-	377	352

Repeater Rate 2011 = 
$$\frac{377}{9570}$$
  
= 3.94%  
Repeater Rate 2012 =  $\frac{352}{9933}$   
= 3.54%

According to the total enrolments in the schools under consideration the population is ever increasing. This could be as a result of natural population increase or improved school density. Further the repeater rate is relatively low (3.6%) while the cohort wastage rate stands at (16%) which is an indication that there are a small number of school drop-outs. The flow of students in the area of study can therefore be said to be relatively efficient however there

was need to address the wastage problem. With the relevant resources mobilization strategies, internal efficiency of the schools would definitely improve.

#### **4.3.2: Performance in Examinations**

At the terminal stage, internal efficiency is finally measured through the use of examination results which will show the Grade Graduation Rate (GGR). It would show how many students from a given cohort actually finished the cycle and got certificates of achievement. This can also give the year per graduate which indicates the average length of time one takes to graduate from a given cycle of education. The quality of the grades would indicate level of internal efficiency.

The table 4.9 shows the distribution according to performance in examinations.

Table 4.9: Performance in KCSE in Rachuonyo Sub county 2009-2012

Performance	index no of schools	percentage
1.0-3.5	3	5.0
3.6-7.0	52	85.2
Above 7.0	6	9.8
Total	61	100

**Source: Kenya National Examination Council 2013** 

Majority of the schools, 85.2% had recorded a mean score range of 3.6 to 7.0. This was followed 9.8% who were in the range of 7.1 and above. The remaining 5.0% registered a mean of 1.0 to 3.5. Within a scale of one to twelve most of the schools involved in the study can be described as being average performers in Kenya Certificate of Secondary Education (KCSE) with just a few performing below and above average.

#### 4.4: School Financial Resource Mobilization Strategies

The schools considered in the research had a number of strategies they used to mobilise resources for sustainable learning and infrastructure development. These included payment of user fees by students, government subsidy, community fund raisers, NGOs funding, use of foundations, use of student labour and income generating activities. Further time and human resources were also rationalised to accumulate and sustain resources in the schools.

#### 4.4.1: Resource Mobilisation through User Fees Payment

The study revealed that fee payment in most schools (96.7%) was done in three instalments while the remaining 3.3% preferred a payment in two instalments as shown in table 4.10.

Table 4.10: Fee payment schedules

Instalments	Frequency	Percent
Two	2	3.3
Three	59	96.7
Total	61	100.0

The three instalments were found to be popular because of the convenience it gave to the parents who pay the fee. If the total fee was to be paid at once poor parents would likely default and deny the schools a chance to provide the relevant facilities. However, block payments would improve certainty and predictability of school programmes.

#### **4.4.1.1:** Fee Completion Trends

Completion of fees payment was a major problem in most schools as shown on table 4.11.

**Table 4.11: School fees completion rates** 

Completion rate	frequency	Percent
None	1	1.6
Less than half	34	55.7
More than half	24	39.3
All	2	3.4
Total	61	100.0

Majority of the respondents (55.7%) said that less than half of the students completed the payment of fees at the end of the year. This was followed by 39.3% of the respondents who said that more than half of the students completed fee payment while only 3.4% of the respondents said that all the students completed the payment of fees. The remaining 1.6% of the respondents said that none of the students completed payment of fee in their respective schools.

#### 4.4.1.2: Amount of School Fees Charged Per Year by Schools

The range of fees paid in the schools per year is shown in the table 4.12

Table 4.12: Amount of fees charged per year

Range	Frequency	Percent
Below 10,000	36	59.0
10001-20,000	16	26.2
20,001-30,000	8	13.1
Over 30,000	1	1.7
Total	61	100.0

Most of the schools (59%) charged below ksh 10,000 per annum. A further 26.2% were charging between ksh 10,000 and 20,000 while 13.1% charged over ksh20, 000 but less than 30,000. Only 1.7% charged more than ksh 30,000. It is worth noting that most of the schools in Rachuonyo were day schools allowed to charge not more than sh 10,000 for lunch program by the District Education Board.

#### 4.4.2: Government Subsidy as a Financial Resource Mobilisation Strategy

The findings of this study indicated that all the schools (100%) were receiving funds from the Ministry of Education (MOE) under the Free Tuition Secondary Education (FTSE) program which was introduced in 2008. The FTSE initiative has produced positive impacts in the schools as noted in the table 4.13.

Table 4.13: Positive effects of FTSE policy

Effects	Frequency	Percent
Increase in enrolment	50	81.9
High retention	29	47.5
Poor students are assisted	19	31.1
Helps in salaries	44	72.1
Development of young schools	16	26.3

One of the positive impacts is increased retention of students in school as noted by 47.5% of the respondents. This is attributed to the fact that there before, students were either unable to register in schools or dropout due lack of fees. There is also increase in enrolment as indicated by 81.9% of the respondents. With the introduction of the program many new students and even those who had left school found a second chance. Young schools have been given a chance to develop unlike when they depended only on the fees collected and this was seen among 26.3% of the respondents. This was as a result of marked increment in the

transition rates between primary and secondary schools countrywide. The FTSE program has also assisted poor students who can now continue with their education with less difficulty as indicated by 31.1%. The opportunity cost of schooling has tremendously gone down thus encouraging the poor to take their children to school. Finally, 72.1% said that the FTSE funds have also been of help in paying salaries for the teachers under Board of Management and payment of non-teaching staff. This ensures staff stability and hence continuity in learning.

#### 4.4.3: Community Fund-Raisings as a Financial Resource Mobilization Strategy

In order to supplement the school financial resources, community members could be mobilised to pool up their monetary resources in form of harambees. The research considered the total amount raised in a year; the projects done using the money; how the funds raised influence performance, retention and repetition.

The distribution of money collected through fundraisings as shown in table 4.14.

**Table 4.14: Funds Mobilised through community initiatives** 

Range of amount	Frequency	Percent
Below 500000	41	67.2
500001-1000000	14	23.0
1000001 and above	6	9.8
Total	61	100.0

Most of the learning institutions (67.2%) realized less than a half a million shillings. This was followed by 23% who collected between a half a million and one million shillings. The remaining 9.8% of the respondents mentioned a collection of more than 1 million. This meant that most communities were unable to raise adequate funds to supplement the school resources.

#### **4.4.3.1:** Role of Community Fund Raisings

The money collected from fundraisings was used in various ways as shown in table 4.15.

**Table 4.15: Completed Projects using Community funds** 

Projects	Frequency	Percent
Classrooms	45	73.8
Dormitory	11	18.0
Administration block	20	32.8
Hall	5	8.2
Library	5	8.2
Staff houses	12	19.7
Bathrooms	5	8.2
Others	2	3.3

Completion of classrooms had the highest percentage (73.8%) while dormitories were realized by 18% of the schools. Another 32.8% of them saw the completion of administration blocks. Construction of dining halls was done by 8.2% of the respondents. Completion of libraries, staff houses and bathrooms was done by 19.7% of the institutions. Others projects like completion of payment of school bus, cultivation of school farms, paying school debts was realized by 3.3% of the respondents. This meant that the main reason why schools organize fund raisings is to develop new physical facilities.

# 4.4.4: Non-Governmental Organizations (NGOs) Funding as A Financial Resource Mobilisation Strategy

An attempt was made to establish the role played by Non Governmental Organizations in mobilising resources for the schools. Table 4.16 shows the number of schools that received support from Non Governmental Organizations.

Table 4.16: Receipt of NGOs funding

Received	Frequency	Percent
Yes	14	25.5
No	41	74.5
Total	55	100.0

According to the study only 25.5% of the respondents acknowledged the receipt of funding from the NGOs available in the region. The remaining 74.5% did not receive funding from the NGOs. This meant that the role of NGOs as a source of financial resource in the area of research study was quite limited. This was due to limited number of active NGOs which could fund school projects.

#### **4.4.4.1: Reasons for Not Involving With Non Governmental Organizations (NGOs)**

As indicated above most schools did not get support from the NGOs. The respondents were asked to give reasons as to why the involvement of NGOs in school resource mobilisation was limited.

The reasons according to the respondents are shown on table 4.17.

Table 4.17: Reasons for Non-funding by NGOs

Reasons	Frequency	Percent
No NGOs	13	38.2
Non- application	10	29.4
Weak Proposal	11	32.4
Total	34	100.0

According to 38.2% of the respondents, most schools did not receive funding because there were no NGOs in the area. Those who had not applied for funds from NGOs formed 29.4% as those whose proposals were not considered accounted for 32.4 %. The role of NGOs was therefore insignificant as a source of resource mobilisation but needed more consideration.

#### 4.4.4.2: Role of Non-Government Organization in Schools

The few Non Governmental Organizations available played a number of roles in supporting school development. When asked about what the organisations had done to the schools, the respondents reported a number of roles as indicated on table 4.18.

Table 4.18: Role of NGOs in schools

Roles	Frequency	Percent
Payment of salaries	4	40.0
Development projects	3	30.0
Assisting needy students	4	40.0
Book donations	4	40.0

Forty percent of the respondents said the NGOs were helping them to pay salaries to BOM employed teachers. Thirty percent of the schools engaged the organizations in initiating

infrastructure development while 40% said the NGOs were offering bursaries to needy students as the other forty percent had received book donations from the NGOs.

#### 4.4.5: Foundations/Endowment/Alumni Contribution as financial Resource

#### **Mobilisation strategy**

The study attempted to find out the existence of foundations, alumni organizations and endowments in the schools in order to assess their contribution towards resource mobilisation. The respondents indicated the availability such initiatives and the findings were as shown in tables 4.19, 4.20 and 4.21.

**Table 4.19: Existence of Alumni Organisation** 

Existence	Frequency	Percent
Yes	7	11.5
No	54	88.5
Total	61	100.0

The study revealed that most of the schools (88.5%) do not have Alumni organisations. Only a small percentage of the respondents (11.5%) confirmed that they had the alumni. Similarly, most schools did not have endowment fund kitties (92.9%). Only 7.1% of the respondents indicated that they had such funds. The endowments were unpopular because schools believed in operating clearance accounts without any internal savings to initiate endowments. However this would be an effective way of giving back to the schools which made people what they are. If schools could effectively collect fees and save endowments would be initiated.

Table 4.20: Availability of endowment funds

Availability	Frequency	Percent
Yes	9	14.8
No	52	85.2
Total	61	100.0

A small number of institutions had foundations (16.4%) with most of them having none (83.6%). Foundations however, need strong stakeholders who can attract funding even from friendly nations. This meant that schools lack people who identify with them and could initiate foundations to sponsor school activities. The findings are as shown in table 4.21

**Table 4.21: Existence of foundations** 

Existen	ice	frequency	Percent
	Yes	10	16.4
	No	51	83.6
Total		61	100.0

#### 4.4.5.1: Contribution of Foundations/Alumni/Endowments

Though evidently underutilized, foundations/alumni/endowments could provide bursaries and scholarships to learners in addition to constructing milestone projects for remembrance by former students. Majority of the respondents (40%) said that although they had foundations they had not received any contributions from the foundations; however, 30% said that foundations have helped in supporting development projects in the school such as constructions of dormitories. The other 20% of the respondents said that the foundations have been of help to needy and bright students who have benefited in terms of bursaries or direct sponsorship. The remaining 10% have received very little from the foundations in terms of funds or any other form of contribution as shown on table 4.22.

Table 4.22: Roles of foundations/endowments/alumni

Role	frequency	percent
No activity	4	40
Construction of facilities	3	30
Bursary support	2	20
Other activities	1	10

#### 4.4.6: Income Generating Activities (IGAs) and Resource Mobilization.

In an attempt to supplement the financial resources of the schools there is need to engage in income generating activities. Depending on the resources available in specific schools the IGAs are varied. Income can be generated profitably in an area where the school has a competitive advantage. It was therefore important to find out the physical resources available in the schools; the different activities the schools are involved in; total annual income generated; benefits of income generation to the schools.

A number of physical resources were found to be available in various schools as presented on table 4.23.

Table 3.23: Availability of physical resources

Resource	Frequency	Percent
School bus	20	32.8
Posho mill	2	3.3
School farm	36	59.0
Fish pond	8	13.1
Green house	5	8.2

Considering the availability of resources, most of the schools (59.0%) owned school farms as the major physical resource. This was followed by those who had school buses (32.8%). Fish ponds were owned by 13.1% while posho mills were existent in 3.3% of the schools. The remaining 8.2% of the schools owned greenhouses. It was therefore evident that the schools had the capacity to support their budgets through divergent income generating activities.

The respondents were using the available resources to generate income and the findings were as recorded in table 4.24.

**Table 4.24: Income generating activities in the schools** 

Activities	frequency	Percent
Farming	30	49.2
School bus	20	32.8
Trees/Timber sales	7	11.5
Buildings hire	18	25.9
Printing	6	9.8
Fields	10	16.4
Rent	20	32.8

The main Income Generating Activity in the schools was the school farm which was used to produce food crops to supplement the food supply in the schools. This was identified by 49.2% of the respondents while 32.8% of the respondents mentioned school bus which was hired out to help in generating income for either maintenance or budget support. There were those who had trees and timber for both the school and community which accounted for 11.5% of the respondents. There was also hire of school buildings like halls, dormitories and kitchens which the school used to create revenue as was identified by 25.9% of the respondents. Some 9.8% of the respondents had typing, printing and photocopy services as income generating activities. Hire of fields for sporting activities was indicated by 16.4% while rent collection from teacher houses was at 32.8%.

According to the findings agriculture is the most common IGA because most schools lie in a rain fed zone and the farms also form a teaching learning aid. The school bus project has also become popular with schools though the overhead running costs are quite high and might not be profitable in the long run. One area which needs to be encouraged is construction of

teachers' houses which a part from earning income to the schools would also ensure the teachers are available for students' consultation.

#### 4.4.6.1: Total Annual amount from Income Generating Activities

To ascertain the contribution of the income generating activities, it was imperative to find out how much money was raised through such activities annually. The respondents were asked about how much they received from the various income generating activities. The responses were as shown in table 4.25.

Table 4.25: Annual amount raised from Income Generating Activities

Range of amount	Frequency	Percent
Below 200000	49	80.3
200001- 400000	7	11.5
Above 400000	5	8.2
Total	61	100.0

The collection from IGAs was not very high as most of the respondents (80.3%) said that the collection was less than Kshs.200, 000 per annum. Only 8.2% of the respondents got between Kshs. 200,000 and Kshs.400, 000 p.a., while 11.5% of the respondents managed to collect above Kshs.400, 000 p.a. The IGAs were therefore an underutilised source of money which can be used to enhance internal efficiency.

#### **4.4.6.2:** Benefits of Income Generating Activities

The incomes generated by the schools were basically to support the teaching/ learning activities. The benefits varied from one school to the other. The respondents were asked to give the benefits of income generating activities in the schools. The responses are as shown on table 4.26.

**Table 4.26: Benefits of Income Generating Activities** 

Benefits	Frequency	Percent
Supplement budget	56	91.8
Bursary to needy students	20	32.8
Revenue for Development	20	32.8
Practical experience for learners	59	96.7

Nearly all the respondents (91.8%) highlighted the benefits of IGAs as supplementing the food budget in the schools. Provision of bursary for needy and bright students and revenue for infrastructure development were both identified by 32.8% of the respondents. Finally, 96.7 percent of them indicated that the activities also provide a practical experience to students who take applied subjects like agriculture. This would enhance students' performance and therefore improved internal efficiency of the schools.

#### 4.4.7: Time Management as a Resource

To enhance efficiency in the schools there is need to use the existing resources within a given time frame. As such the respondents were asked about the length of time they spend on teaching/ learning activities. The length of time spent on class work was reported as in table 4.27.

Table 4.27: Hours of class work

Length	Frequency	Percent
>8 hours	2	3.3
8 hours	19	31.1
>8 hours	40	65.6
Total	61	100.0

The study revealed that most of the schools (65.6%) dedicated more than eight hours to class work in a bid to cover the syllabus effectively. However, 31.1% of the respondents said that they use the normal eight hours while the remaining 3.3% talked of dedicating less than eight hours to class work, a situation which led to low syllabus coverage. This would negatively impact on internal efficiency.

#### **4.4.7.1:** Time Wasting Activities in Schools

Time as resource determines the extent to which the other resources are exploited. The respondents were therefore asked to give the activities which waste time. The major time wasters in school were given as presented on table 4.28.

**Table 4.28: Time resource wasters in schools** 

Time wasters	Frequency	Percent
Sending students home for fees	30	49.2
Lateness	15	27.8
Out of time table activities	12	22.2
Absenteeism	12	22.2
Fetching water	4	7.4

A significant number of them (22.2%) ,indicated that out of time -table activities like meetings and sports are some of the times wasters in schools. Besides that, 27.8% of the respondents blamed it on lateness especially by the day scholars and some teachers. Absenteeism was also a time waster observed in both the staff and the students. For instance, a student who is absent from school for one day loses eight hours while an absent teacher taking two classes would waste 16 man-hours per day. This was represented by 22.2% of the respondents. The most common time waster, identified by 49.2% of the respondents was sending students home for fees. The final time waster identified by 7.4% was fetching water to be used in school. This meant that attempts should be made to mobilise more resources to cushion the students who cannot afford fees. This would help them stay in school longer and learn effectively for enhanced internal efficiency.

#### 4.4.8: Human Resource Management and School Internal Efficiency

Human labour provides an already produced good which can be used to produce other goods and services (Psacharopoulos, 1985). In economic terms it is referred to as human capital. The benefits accruing from human capital when quantified in monetary terms become a financial resource. Human capital can be seen in terms of both physical strength and intellectual ability. In the school system human resource encompasses students, teachers and non-teaching staff.

#### 4.4.8.1: Use of Learners as a Human Resource

According to the respondents there are a number of activities which can be done by the learners to save costs as presented on table 4.29.

Table 4.29: Labour assignments to students

Assignments	Frequency	Percent
Cleaning the compound	54	90.0
Farm work	20	32.7
Drawing water	31	50.8
Others	2	3.3

The study found out that most of the schools 90.0% engaged students in cleaning the school compound instead of hiring workers. The other 32.7% said that students were also engaged in working in the school farm as a way of cutting costs. Drawing water for use in the kitchen and mopping of classrooms were also some of the responsibilities of students as depicted by 50.8% of the respondents. Other responsibilities included splitting firewood, serving meals and collecting stones during construction and planting trees which accounted for 3.3%. Schools can engage students in assignments that they would rather pay for. This would be a saving to the schools. This would translate in enhanced internal efficiency as measured through student performance, repetition and retention rates.

#### 4.4.8.2: Amount Saved For the School through Students Labour

Schools need money to hire the services of a number of subordinate staffs who draw salaries and wages. These would mean charging the learners extra money to pay for the services which they would otherwise perform at no direct cost. Table 4.30 shows the responses related to the amount saved when using student labour instead of hiring school workers.

Table 4.30: Amount saved from use of students labour in shillings per annum

Range	Frequency	Percent
Kshs. 0-120,000	47	83.9
Kshs.120,001-240000	9	14.8
Over 240000	5	8.2
Total	61	100.0

Most of the schools (83.9%) saved less than sh. 120,000p.a from students labour. The other 14.8% of the schools saved between Kshs.120, 000 and Kshs.240, 000. The remaining 8.2% saved more than sh. 240,000p.a. The savings were quite beneficial to the schools as no money was spent on such engagements. Further, the students were exposed to activities which would make them self-reliant apart from developing a sense of responsibility.

#### 4.4.8.3: Human Resource Mobilization in Schools

To ensure high productivity of the school workers, there is need to provide a favorable working environment. Such environment should motivate the workers to produce optimally. Ways of motivating workers applied in the schools are shown on table 4.31.

**Table 4.31: Staff motivation strategies** 

Strategies	Frequency	Percent
Awards	59	96.7
Retreats	48	78.6
Lunch	58	95.0
Prompt payments	27	44.3
Others	5	10.4

The study revealed that nearly all the schools (96.7%) motivated their staff through awards, which were either monetary or material gifts. Prompt payment of salaries or any service

offered was also a motivation tool used by 44.3% of the respondents. Schools also take their staff for retreats where team building activities are carried out as seen among 78.6% of the schools. Another 18.8% of the respondents provided free meals in school for the staff to save on time and maintain energy levels. Other forms of motivation practiced by 10.4% of the respondents were recommendation for promotions; certificates of good performance and verbal appraisal.

#### **4.4.9:** The Role of Financial Resource Management

Whatever the source of income to the school it is imperative that it is used prudently and effectively. The respondents were therefore asked to give their opinion about efficient financial management which is central to internal efficiency of the schools. The responses were as shown on table 4.32.

Table 44.32: Financial management practices in schools

Best practices	Frequency	Percent
Efficient tendering and procurement	20	32.8
Proper A/Cs/budgeting	38	62.3
Bank payments	14	23.0
Qualified staff	26	42.6

Proper accounting and budgeting procedures were considered by 62.3% of the respondents as one way of sound financial management practice as presented on table 4.32. This ensures appropriate book keeping leading to transparency and accountability. Funds received from whichever source are well receipted and all expenditures recorded in time. Use of proper accounting procedures also helps in measuring the financial health of an institution allowing for timely remedial actions. This was followed by 23.0% who recommended payment of fees

through the bank. Once the money is paid the head teacher will have easy time to spend according to the budget and also can procure goods in bulk hence enjoying the benefits of economies in scale. A total of 42.6% suggested hiring of qualified staff to handle the accounts. This provides the head teacher who is the accounting officer with a professional advisor in modern and efficient financial management techniques. The other 32.8% said that there should be efficient tendering and procurement procedures to help in sound financial management. Such will also removes biasness in dishing out tenders hence improved quality of goods and services.

#### **4.4.9.1: Reasons for Auditing School Accounts**

To avoid mismanagement and misappropriation of school funds there is need to keep up to date financial books of accounts. Auditing is an important aspect of financial management. Thus the opinions of the respondents on its role were sought. The responses were as shown on table 4.33.

**Table 5.33: Reasons for Auditing school accounts** 

Reasons	Frequency	Percent
Prevent mismanagement	52	85.2
Efficient service delivery	18	29.5
Legal requirement	10	16.4

The major reason for auditing school accounts as indicated by 85.2% of the respondents is to prevent mismanagement of school funds. Auditing was also identified by 29.5% as a way of improving service delivery while the remaining 16.4% said that auditing of accounts should be done because it is a legal requirement. Consequently the school funds need to be audited to ensure accountability and efficient use of school funds. The activity should be done seriously to deter financial malpractices.

#### 4.5 : Resource Mobilization Strategies and Internal Efficiency of Schools

The resource mobilisation strategies were seen to be having a number of effects on internal efficiency as seen in terms of school retention, repetition and drop-out rates. At another level the strategies influenced the performance of the students who reach the terminal grade and sit for national examinations.

#### 4.5.1: Perception of Head Teachers about Fee Defaulting and School Internal Efficiency

Fee defaulting was said to have got a direct negative influence on performance of students. This is because one of the measures taken by the schools of sending the students home for fees wastes time and results into poor coverage of syllabus. The end result is poor performance in examinations. Retention is also affected negatively by fees defaulting as close to 98% of the respondents suggested. It results into students "nomadism" where a student will move from one school to the other after failing to pay fee in the previous schools. This affects the student in terms of inconsistent syllabus coverage and thus poor performance. Students' repetition is also promoted by fee defaulting. Those who do not perform as a result of not attending classes due to lack of fees are forced to repeat classes, against their wish.

### 4.5.2: Head Teachers Assessment of the Relationship between Free Tuition Secondary Education (FTSE) and School Internal Efficiency

The implementation of free tuition education has both negative and positive impact on internal efficiency of schools as measured in terms of students' performance, repetition and retention rates. The opinion of the respondents was sought. The findings were as shown on table 4.34.

Table 4.34: Impacts of free tuition secondary education funds on internal efficiency

Impacts	Frequency	Percent
Reduced performance	48	78.7
Enhanced performance	13	21.3
Increased repetition rates	30	49.1
Reduced repetition rates	31	50.9
Enhanced retention rates	60	98.4
Reduced retention rates	1	1.6

Most of the head teachers (78.7%) indicated that the FTSE program had impacted negatively on performance of students in examinations. They said this was because of high enrolment leading to high student-teacher ratio. The subsequent result is poor service delivery leading to poor examination results. Other reasons included return of very old students to school who no longer capture what they are taught in class eventually leading to low aggregates in exams. Poor performance has also been as a result of nomadism where students hop from one school to the other as long as there is government subsidy. This causes a lot of gaps in syllabus coverage. The facilities, like laboratories, libraries are also overstretched and cannot contain the ever increasing number of students, leading to poor delivery in class. A smaller percentage of the respondents (21.3%) however, reported that the performance had improved due to the availability of learning materials which are purchased through the FSE program.

Retention rates have however improved as the drop out due to lack of fees did significantly reduce. This on the other hand has seen some improvement in performance since the students have ample time to stay in school and learn consistently. There was a mixed reaction on the repetition rate, where 49.1% of the respondents indicated that repetition had reduced because the students have options of joining other schools other than sticking to one school. The other

50.9% said that repetition had increased due to the poor performance resulting from a high number of students who have significantly overwhelmed the teaching staff.

Conclusively, the introduction of FSE initiative impacted positively on school enrolments through reducing the direct costs of education . This helped the poor to sustain their children in school. It also reduced the use of *harambee* to develop school infrastructure. To the extent of providing basic education to the Kenyan child much has been achieved. However, given that the program was rushed due to political expediency it was likely to impact negatively on academic performance. As the adage goes "failure to plan is planning to fail". The over enrolment into schools without concomitant expansion of both human and physical resources made learning very difficult.

# 4.5.3: Perception of Head Teachers on Community/Harambee Funds and Internal Efficiency

Resources mobilised through community fund raisings would be used to support school programmes thus affecting internal efficiency as measured by student performance, retention and repetition rates. The responses were as contained in table 4.35.

Table 64.35: Impact of community funds on internal efficiency

	Frequency	Percent
Positive variation	41	67.2
Negative variation	20	32.8
Total	61	100.0

The *harambee* funds were seen have positive effect on students' performance by 67.2% of the respondents. The argument here was that the funds would enhance retention which in turn translates into improved performance. This consequently reduces repetition and dropping out

since the performance has improved. The funds also improved facilities leading to high retention and more effective teaching and learning. However, the other 32.8% said that there will be no much change on performance since high retention increases work load to teachers' hence poor service delivery. *Harambees* could also be counterproductive when there is little transparency and accountability leading to construction of sub-standard facilities which are expensive in the long run.

### 4.5.4: Head Teachers' Assessment of NGOs Funding and Internal Efficiency of The Schools

The resources raised from Non Governmental Organizations can change the resource base of a school thus affecting internal efficiency. The findings from the respondents from the few schools that had links with NGOs were as presented on table 4.36.

Table 4.36: Impact of NGOs on internal efficiency

	Frequency	Percent
Improved internal efficiency	8	80.0
Reduced internal efficiency	2	20.0
Total	10	100.0

The overall picture relayed by majority of the respondents is that funding from the organizations led to improved learning facilities, which in turn leads to improved performance. There is high retention of students in school thus providing more learning hours and thus limited need for repetition. In cases where students are given scholarships the beneficiaries are challenged to work hard to secure the chances. With high retention rates and high performance index, internal efficiency of the schools is ensured as perceived by the head teachers.

### 4.5.5: Head Teachers Opinion on Alumni/Endowment Funds and Internal Efficiency of the Schools

The alumni and foundations can raise fee for poor students through bursaries and sponsorships as observed by over fifty percent of the respondents. This will consequently improve retention of students since those who are bright and needy will be supported thus attending school regularly leading to good performance in examinations. With good performance, there will be no repetition in the school occasioned by poor performance and absenteeism due to lack of school fees. All these would result into enhanced internal efficiency.

# 4.5.6: Head teachers Perception of Income Generating Activities and School Internal Efficiency

Income generating activities can be used to raise resources for the schools. The resources will be used to acquire teaching/learning facilities which are fundamental in student performance and thus internal efficiency. The responses were relayed on table 4.37.

Table 4.37: Impact of IGAs on internal efficiency

	Frequency	Percent
Improved internal efficiency	55	90.1
Reduced internal efficiency	6	9.9
Total	61	100.0

There was a positive relationship between income generating activities and retention and performance of students as indicated by 90.1% of the respondents. High retention rates resulted from the cushion provided by resources created and saved through income generation activities. A number of extra levies are covered by the generated resources hence

students don't drop out of school. Further, enhanced student performance is as a result of a number of factors; improved school attendance; completion of syllabus in time; acquisition of adequate learning resources; organization of teacher and students' academic tours; giving of prizes to high achievers; making technical subjects more practical and enterprising. However, the remaining 9.9% of the respondents said that the IGAs could be counterproductive when schools stress more on their financial than learning aspects.

### 4.5.7: Perception of Head teachers about Time Management and School Internal Efficiency

Proper time management ensures early coverage of syllabus and at the same time increases students confidence which leads to good performance as said by the over eighty percent of the respondents. The good performance will lead to retaining more students in the school and will also reduce cases of repetition. Also effective time management creates savings in terms timely procurement and extra payment for remedial lessons. Further, if students time is not fully budgeted for they remain idle and susceptible to destruction of school property.

## 4.5.8: Head Teachers Assessments of Impacts of Human Resource Management on the School Internal Efficiency

The overall impact of efficient human resource management is efficient service delivery as indicated by more than half of the respondents. The teachers and the non-teaching staff will have a favourable working environment which enhances productivity and hence good performance. Teachers who are well paid and readily available to the learners are more productive. Further, it provides them with ample time for getting involved in other activities in school. Well taken care of students are likely to perform well in examinations hence reduced repetition of classes. However, students who are over engaged in manual work lose a

lot of time and at times dropout due developing a negative attitude towards a particular school.

#### 4.6: Challenges of Resource Mobilization Use and Mitigation Strategies

Mobilisation of resources in schools through different strategies is faced by a number of challenges. Usage of the resources so mobilised also pose some difficulties. An attempt was made to identify the challenges and how they could be mitigated to ensure internal efficiency in the schools.4.6.1: Causes of Poor Fee Payment in Schools

One of the challenges faced by schools is poor fee payment. Learners expect services and would wish to be in school regularly but cannot meet both the direct and opportunity costs of secondary education. This directly impact on school internal efficiency as seen in performance, retention and repetition. The challenges were as put on table 4.38.

Table 4.38: Reasons for poor fee payment

Reason	frequency	Percent
Poverty	59	96.7
Orphans	34	55.7
Negative attitude towards fee payment	34	55.7
Ignorance	5	8.2
Belief in FSE	34	55.7
High cost of living	50	82.0
Village school	39	63.9
Many day schools	11	18.0

The major cause of poor fees payment is poverty as was indicated by 96.7% of the respondents. The parents lacked viable sources of livelihood. Living below a dollar per day made education a luxury rather than a basic need in the area of study. The high number of

orphans as indicated by (55.7%) of the respondents meant that the learners literally lacked financial ability. The other cause of poor fee payment is the negative attitude by the parents shown by 55.7% of the respondents. Most parents see education as an unnecessary burden given that even school graduates do not get appropriate job opportunities. As such expenditures on education are not seen as profitable especially in the short-run. Ignorance is another factor at 8.2%. Parents were ignorant of the fact that payment of fees is not a preserve of the employed. Those involved in the informal sector see themselves too poor to afford school fees. Some parents (55.7%) don't pay fees not because they are unable but because they believe that FTSE policy should cater for all the costs of education. Local politicians are known to champion the cause that learning at secondary is absolutely free thus making the parents to avoid paying school fees. High cost of living was blamed on poor fee payment by 82.0%. A whopping 63.9% of the respondents noted that there was a feeling among the parents that school being theirs they need not pay for the services. The school belongs to them by virtue of the funds they raised at initiation and the land they donated. To some they would want to emotionally relate to the school without taking into account the futuristic aspects of the school. A total of 18% said that the mushrooming of schools leads to student nomadism causing of poor fee payment in the schools. The students accumulate fee arrears and then move to another school and continue to the next class.

#### **4.6.1.1:** Strategies of Improving Fees Payments in the Schools

In order to stabilise the resource base of the schools and improve internal efficiency there was need to address the challenges. The respondents when asked to give suggestions about how fee payment could be improved they gave divergent views as presented on table 4.39.

Table 4.39: Measures to improve fee payment

Measures	Frequency	Percent
Sponsorship/bursaries	19	31.1
Income generating activities	10	16.4
Strict regulations	11	18.0
Sensitization of parents	38	62.3
Fee payment through supplies	27	44.3
Others	9	14.8

To improve fees payment, 62.3% of the respondents said that the parents need to be sensitized more on the importance of fees payment. Another 44.3% suggested that the fees can be paid through supplies or in kind instead of cash. Getting sponsors for needy students and/or providing bursaries (31.1%) while instituting strict policies on fees payment and collection was highlighted by 18%. Income generating activities was indicated by 16.4% as a way of raising funds. Finally, 14.8% recommended that students with fee payment difficulties be subjected to work study programs in addition to not admitting students in the middle of year without getting clearance from the previous schools to check learner nomadism.

# 4.6.1.3: Reasons for Flouting Government Fees Guidelines

There were varied fees charged by schools depending on whether they are day or boarding, provincial/district or national. To check the amount of fee to be charged by different categories of schools, the Kenyan government set fee ceilings. Unfortunately these fee guidelines were not being adhered to Ngware (2007). Several reasons were given by the respondents as to why they charged more fees than the set government ceilings as shown on table 4.40

Table 4.40: Reasons for levying excess fees

Reasons	Frequency	Percent
Inflation	48	81.4
Extra learning time	28	45.9
Development	23	37.7
Inadequate capitation	42	68.9

Majority of the respondents (81.4%) cited inflation as the major cause of extra fees. The other 37.7% cited that the extra fees charged is for development and at the same time they said that the money provide by the government is not enough hence the extra charges. Extension of learning time requires more money which the government funds cannot cater for hence the extra charge as identified by 45.9% of the respondents. Another 68.9% of the respondents charge extra money for emergencies because of low government capitation and delay in government funding.

# 4.6.2: Problems of Free Tuition Secondary Education (FTSE) Program

The free secondary education program has had a number of challenges since its commission in 2008. The problems facing free secondary education were found to be varied and many according to the respondents as presented on table 4.41.

Table 4.41: Problems of free tuition secondary education

Problems	Frequency	Percent
Delay	39	63.9
Inadequate	40	65.6
Over enrolment	20	32.7
Mismanagement	14	23.0

The major issue identified by 63.9% of the respondents is the delay in disbursement as shown in table 4.41. This makes the process of budgeting very difficult. It was also noted by 65.6% of the respondents that the amount of money voted per child (Ksh.10, 265p.a) was quiet low and had remained stagnant since its inception. With time the value of the money had been eroded by inflationary tendencies. Since the introduction of FSE funds, there has been over enrolment in the schools making the facilities to be overstretched as identified by 32.7% of the respondents while the remaining 23% recognized mismanagement as one of the problems facing the scheme.

# 4.6.2.1: Problems Created By Free Tuition Secondary Education Program

Apart from the challenges, the FSE program has also created a number of problems to the secondary school management which could have a bearing on internal efficiency of the schools. The respondents were asked to give their opinions on problems associated with Free Secondary Education (FSE) program. The responses were collated and presented on table 4.42.

Table 4.42: Problems created by free tuition secondary education policy

Problems	Frequency	Percent
Laxity among parents	44	77.2
Workers higher pay	24	39.3
Over enrolment	26	42.6
Inflated prices	20	32.8
·		

The major problem as depicted by 77.2% of the respondents was laxity among the parents when it comes to fee payment. The parents feel that it is the sole responsibility of the

government to educate their children. The vote heads that are not covered by the government subsidy like boarding and lunch have really suffered a setback in the recent past (Masese, 2005). According to 42.6% of the respondents, the FSE has led to over enrolment consequently leading to overburdening of teachers and further compromising quality of services. About 32.8% of the respondents mentioned inflation of prices by suppliers while workers demanding higher salaries was indicated by 39.3%. Therefore, as much as the FSE program can enhance internal efficiency it can also do the reverse, thus the need to handle it with rational decision making.

#### 4.6.2.2: Interventions to Improve Free tuition Secondary Education Program

To make the scheme better a number of interventions were suggested by the respondents as shown on table 4.43.

Table 74.43: Interventions expected of GOK on free tuition secondary education

Interventions	Frequency	Percent
Increase amount	31	53.4
Timely payment	57	87.9
Full disbursement	20	32.8
More teachers	21	34.4

A total of 53.4% of the respondents called for increasing the amount per student after auditing to verify the school population so as to enhance efficiency. Timely disbursement was identified by 87.9% of the respondents while 32.8% of the respondents said that the money for the whole year should be disbursed as single tranche at the beginning of the year. With an increase in enrolment due to FSE, 34.4% of the respondents urged the government to employ more teachers to improve service delivery. This definitely put the government in an

approach- avoidance psychological situation since expansion of enrolments without concomitant increase in the number of teachers would affect the performance of the schools.

# 4.6.2.3: Measures to Reduce Mismanagement of Free Tuition Secondary Education

Over and above the suggestions to the government by the respondents a number of measures needed to be put in place to reduce mismanagement of the FSE funds at school level (see table 4.44).

Table 4.44: Measure against misuse of FTSE funds

Measures	Frequency	Percent
Strict accounting	55	90.2
Strict budgeting	22	36.1
Tendering and procurement	28	45.9
Use of ministry guidelines	29	47.5

Accordingly, misuse of FTSE funds can be prevented by following strict accounting procedures (90.2%) in addition to making and following institutional budgets to prevent misuse of the funds as indicated by 36.1%. Proper tendering and procurement procedures (45.9%) along with strict use of the guidelines provided by the ministry (47.5%) will also help in making the program sustainable.

# **4.6.3: Challenges Facing Community Fund Raisings**

The community fund raising as a resource mobilisation strategy had a number of challenges as said by the respondents. The met bottlenecks were as shown on table 4.45.

Table 4.45: Challenges faced in community funds mobilisation

Challenges	Frequency	Percent
Time	15	24.6
Lack of interest	28	45.9
High Expenses	16	26.2
Low turn out	41	67.2

According to 67.2% of the head teachers the main challenge experienced while organizing a fundraising is the low turnout and general poverty making the collections to be very minimal. This was followed by 49.5% of them who said that most of the stakeholders showed lack of interest in the whole process which at times was forced on the locals by the state machinery. High expenses while organizing a fundraising session was experienced by 26.2% of the school administrators. This entailed gifts to guest of honour and other costs like advertisements. In some cases the money used in organization of the event turned out to be higher than the amount realized. Ultimately, 24.6% indicated lack of enough time as one of the challenges while organizing a fundraising. Many a times they are scheduled to fit in the diary of the chief guests rather than the school calendar. This can interfere with the school learning programs.

# 4.6.3.1: Ways of Improving Community Collections

The respondents did suggest means and ways of improving collections during fundraisings as contained in table 4.46.

Table 4.46: Ways of improving community funds collections

Strategies	Frequency	Percent
Broad involvement	38	77.6
Sensitisation	28	45.9
Setting targets	19	31.1

According to 77.6% of the respondents, involving all the stakeholders is one of best ways of improving the fund collections. They need to feel part and parcel of the project. Improved sensitization of communities was suggested by 45.9% of them while setting targets that must be met by parents was considered to be an option by 31.1% of the respondents.

# **4.6.4:** Challenges in Working Non Governmental Organizations (NGOs)

The schools had challenges working with Non Governmental Organisations in mobilising resources to support the school programs. To ascertain the challenges met when working with the NGOs, the opinions of the respondents was sought and the responses relayed through table 4.47.

Table 4.47: Challenges in working with NGOs

Challenges	Frequency	Percent
None	11	64.7
No community funds	14	82.4
Delayed funding	12	70.6

For those who had interacted with NGOs, the greatest challenge experienced while working with them was lack of community support as identified by 82.4% of the respondents. Given the level of poverty the community members were unable to raise the money required by the

NGOs as part of their commitment. This was followed by 70.6% of the respondents who claimed that the challenge is the delay of funds while the other 64.7% had not experienced any challenges as they work with the NGOs.

# 4.6.4.1: Improvement of Non governmental organizations Participation in Schools

Being a reliable source of funds for the schools attempts had to be made to mitigate the challenges. On how to improve NGO participation in school projects the respondents gave a number of suggestions as illustrated in table 4.48.

**Table 4.48: Improvement of NGOs participation in schools** 

Improvements	Responses	
	N	Percent
Writing proposals	36	59.0
Advertise the school	30	49.2
Using the funds prudently	21	34.4

A total of 59% suggested that writing more proposals would increase their chances of involving NGOs in their school projects. Another 34.4% said that using the availed funds prudently would increase the confidence of NGOs and promote their funding of school projects. Finally 49.2% talked of marketing the schools, through good performance and even through the media to capture the eyes of the donors. Schools could open their websites to widen their spheres of appeal.

#### 4.6.5: Challenges of the Foundations/Endowments/Alumni

The schools had problems establishing bodies that could raise funds for specific learners with peculiar qualities. The funds would be dedicated to an identified posterior educational objective and as a sign of giving back to the society. The respondents attempted to enlist the

challenges they had met when working with foundations to mobilise resources for schools. The findings were as shown on table 4.49.

Table 4.49: Challenges of foundations/alumni/endowment initiatives

Challenges	Frequency	Percent
Lack of experience	15	24.6
Lack of funds	13	21.3
Tracing old students	41	67.2
Lack of support from committees	12	19.7

The main challenge identified by 67.2% of the respondents is tracing old students to join the foundations, Alumni or endowment funds. Lack of funds for coordination of activities was another challenge as shown by 21.3% of the respondents. Lack of experience in organizing the foundations was also recognized by 24.6% of the respondents while 19.7% of the respondents documented lack of support from school management boards.

#### 4.6.5.1: Enhancement of Foundations/Alumni/ Endowments in the Schools

To address the challenges met in initiating and sustaining foundations in the schools, the respondents gave a number of suggestions as contained in table 4.50.

Table 4.50: Enhancement of foundations/Endowments/Alumni

Suggested solutions	Frequency	Percent
Keeping contacts of old students	56	91.8
Approaching local celebrities for support	20	32.8
Initiating exchange programs	10	16.4
Benchmarking with other schools	9	14.8
School saving for foundations	11	1.08

To initiate and develop effective endowments and old student associations, 91.8% of the respondents suggested that schools should maintain contacts with former student and encourage them to come together for the benefit the school. A part from material support they are a source of encouragement to the future and current learners. People with great achievement can be approached to patron foundations in support of poor students as indicated by 32.8% by the respondents. Further, 16.4 percent suggested that schools could have international exchange programs to support their foundations. Also, schools with successful alumni could be approached for benchmarking as suggested by 14.8% of the respondents. Ultimately, 18% of the respondents said that whatever little savings a school can make should go to setting a foundation for bright and needy students.

# 4.6.6: Challenges Created By Poor Time Management

All the resource in a school environment are mobilised within a time framework to warrant efficiency and cost effectiveness. The head teachers were therefore asked to identify the challenges poor time management pose to the schools in relation to learning and teaching programmes. The responses were collated in table 4.51.

**Table 4.51: Results of poor time management** 

Results	Frequency	Percent
Poor syllabus coverage	41	69.5
Starting lessons late	33	54.1
Poor performance	43	70.5
Paid remedial lessons	13	21.3

Poor time management has resulted in many challenges one of which is poor syllabus coverage, as identified by 69.5% of the respondents. This results into to poor performance in examinations and this was noted by 70.5% of the respondents. It also results to payment of additional fees by the students to cater for extra teaching time, as seen among 21.3% of the respondents. Another challenge noted by 54.1% of the respondents is starting of lessons late which in turn resulted into poor syllabus coverage and ultimate poor performance in terminal examinations.

# **4.6.6.1:** Initiatives to Enhance Proper Time Management

To solve the problem of poor time management the respondents gave a number of suggestions as shown on table 4.52.

**Table 84.52: Improvement of time resource use initiatives** 

Strategies	Freque	ency Percent
Punctuality	41	67.2
Time table	21	34.
Supervision	24	39.3
Others	5	8.2

Maintaining punctuality and following the timetable strictly were both considered to be ways of enhancing proper time management by 34.4% of the respondents. This was followed by strict supervision by 23% of the respondents while the other activities like rewarding teachers and prefects who are keen on time were mentioned by 8.2% of the respondents.

#### 4.6.7: Challenges in Human Resource Management

Human resource becomes critical in any aspect of resource mobilisation and use. To that extent the head teachers were prodded about the threats they face as they work with people in the schools. The challenges met were as shown in table 4.53.

Table 4.53: Reasons for loss of workers

Reasons	Frequency	Percent
Transfers	20	32.8%
Theft	6	9.8%
Absenteeism	15	24.6%
Drug abuse	11	18.0%
Low payment	22	36.1%
Negligence	19	31.1%
Others	4	6.5%

It was noted that most schools (36.1%) lose workers due to low payment offered by the schools. This was followed by those who get transfers (32.8%) especially the teaching staff. The other 31.1% of schools lose workers due to negligence leading to destruction of school property hence dismissal. There are also cases of theft of school property leading to loss of workers as seen among 9.8% of the schools. Chronic absenteeism was reported by 24.6% of the respondents as drug abuse accounted for 18.0%. Other issues leading to loss of workers reported by 6.5% of the respondents included retirement, sickness and death.

#### 4.6.7.1: Challenges When Hiring and Maintaining Staff

Central to human resource management is how the workers are recruited. Schools need regular and reliable personnel to ensure stability and consistency in learning and by extension internal efficiency. The responses about the problems faced in hiring school workers were as indicated on table 4.54.

Table 4.54: Challenges in human resource management

Challenges	Frequency	Percent
Lack of funds	35	57.4
Competence	25	41.0
Local community	13	21.3
None	4	7.4

Majority, of the respondents, 57.4% identified lack of funds as one of the main challenges experienced during hiring and maintenance of staff. This was followed by 41.0% who mentioned inadequate competence and poor qualifications. The third challenge mentioned by 21.3% of the respondents was influence from the members of the local community who feel that the school is in their locality hence should hire people from the very area qualifications notwithstanding. Finally, 7.4% claimed that they had not received or met any challenges when hiring workers.

The respondents were asked to suggest the measures which they will take to ensure efficient human resource management in the schools for improved productivity. The suggestions were as presented in table 4.55.

Table 4.55: Best human resource management practices in the schools

Best practices	Frequency	Percent
Respect of qualifications	45	73.8
Proper job description	30	49.2
Commensurate pay	50	82.0
Meritocracy	12	19.7
Mutual respect	8	13.1

A total of 73.8% of the respondents suggested that to ensure high productivity school workers should be employed based on qualifications. Another 49.2% said that workers needed to be given proper job description to rationalize the curriculum based establishment. Further, of great importance was remuneration which needs to be commensurate to the workload as mentioned by 82.0% of the head teachers. To improve workers self-esteem for high production the school working environment must of necessity be comfortable and enjoyable as stated by 19.7%. In case of promotions there is need for meritocracy other than nepotism or other forms of corruption as indicated by 13.1% of the respondents. Last but not least was cultivation of an atmosphere of mutual respect between the leaders and the led as suggested by 13.1%.

#### 4.6.8: Challenges of Mismanagement of School Fund

In order to find out the problems leading to poor financial management of the schools the head teachers were interrogated and the responses presented on table 4.56.

Table 4.56: Challenges of school funds management

Challenges	Frequency	Percent
Skewed tendering and procureme	ent 15	24.6
Poorly maintained A/Cs	16	26.2
Lack of FM& A/C skills	40	65.8
Poor budgeting	25	41.0
Poor supervision	10	16.4

The major cause of financial mismanagement is lack of financial management and accounting skills by the staff as identified by 65.8% of the respondents. A number of the schools actually did not have finance officers while some had unqualified ones. This meant that the financial records cannot be kept up to date resulting into either misappropriation or embezzlement of school funds. Poor budgeting was also mentioned by 41.0% of the respondents while poorly maintained accounts were considered at 24.6%. If the books of accounts are poorly maintained then the financial sickness of an institution cannot be established in time. The problem of skewed tendering and procurement also emerged among 24.6% of the respondents. Another 16.4% highlighted poor supervision of school bursars and accounts clerks by head teachers who might end up embezzling school funds.

#### 4.6.8.1: Efficient Finance Resource Management in School

The challenges posed by poor financial management could be addressed in a number of ways as seen on table 4.57.

**Table 4.57: Efficient financial resource management** 

Strategies	Frequency	Percent	
Efficient procurement	21	34.4	
Proper A/C procedures	46	75.4	
Training/capacity building	27	44.3	
Hiring qualified A/Cs clerk	34	55.7	
Proper store management	32	52.5	

A total of 75.4% of the respondents indicated proper accounting procedures as one way of ensuring efficiency, while 55.7% of the respondents talked of hiring qualified accounts clerks. Another 34.4% cited efficient tendering and procurement procedures. Training /capacity building for the accounts staff and the accounting officer was identified by 44.3% of the respondents. Lastly, 52.5% suggested proper stores management which will ensure the procured goods are actually put to proper use.

# 4.6.8.2: Strategies of creating Savings for the Schools

As a result of proper financial management the schools could be able to make savings. Asked to suggest strategies of creating savings the respondents gave the responses shown on table 4.58.

Table 4.58: saving strategies in schools

Saving strategies	Frequency	Percent
Income Generation Activity	37	60.7
Strategic Purchases	25	41.0
Strict financial management	12	19.8
Resource management	21	34.4

According to 60.7% of the respondents, engagement in Income Generating Activities was one of the best ways of making savings by the schools. Another 34.4% identified proper physical resource management as way of making savings by the school while 19.8% proposed strict financial management. Purchase of goods needed by the school especially foodstuff should be done during low prices as shown by 41.0% of the respondents.

#### 4.7: Resource Mobilization Strategies of the Schools and Student Performance

To establish the relationship between resource mobilisation strategies and student performance cross tabulation was done. The strategies taken into account included monies got through payment of user fees, free secondary education, income generating activities, student labour and community contribution. The strategies were measured in Kenya shillings while the student performance was expressed in terms of school mean grade.

#### 4.7.1: Total User Fee Paid and Performance

The amount of total fee paid by the students had a direct relationship with the students' performance as evident on table 4.59.

Table 4.59: User fees charged and performance

User fees		Total		
	1-3.5	3.6-7.0	7.1-10.5	
<10000	2	4	0	6
10001-20000	1	31	1	33
20001-30000	0	14	0	14
30001 and above	0	3	5	8
Total	3	52	6	61

On average most schools which charged from Ksh 10000 to 20000 scored between 3.6 and 7.0 mean performance index. Schools which charged less than Kshs 10000 could hardly get a

mean of more than 7.0. Further, nearly all schools that got a mean of more than 7.0 charged more than Ksh. 30000. This scenario is due to the fact that, high total fees give a school a sound financial base which ensures enough and effective teaching/learning facilities. To motivate the teaching and non-teaching staff, finances are needed. In addition, adequate resources in school are a precursor to good performance since the students can be exposed to very many trial examinations. The learners will feel contented and would do the final examinations with a lot of confidence and composure. Therefore, the higher the fee charged the higher the performance index because of adequate teaching/learning facilities, high retention rates, pleasant working environment and good time and human resource management.

#### 4.7.2: Total Community Funds Collected Per Year and Student Performance

Students academic performance can be determined by the funds raised through community initiatives as indicated on table 4.60.

Table 4.60: Community funds and performance

Community funds		Total		
	1-3.5	3.6-7.0	7.1-10.5	
<500000	3	29	1	33
500001-1000000	0	17	2	19
1000001 and above	0	6	3	9
Total	3	52	6	61

The schools which collected less than Ksh 500000 p.a from the fundraisings showed low performance index. Majority of the schools that scored more than 7.0 were found to have mobilised more funds through *harambees*. High community funds ensured superior teaching/learning infrastructure which culminated into a high performance index.

#### 4.7.3: Student Labour Savings and Student Performance

The schools could use their students to do a number of activities which would otherwise call for employment of workers. When a cross tabulation was done between the savings that accrued and the students performance index the findings were as shown in table 4.61.

Table 4.61: Student labour savings per annum and performance

Student labour funds	Performance			Total
	1-3.5	3.6-7.0	7.1-10.5	
Khs. 0-120,000	2	40	0	42
Khs. 120,001-240000	1	8	1	10
>240000	0	4	5	9
Total	3	52	6	61

Most of the schools which created shs 120000 and below as income through the use of student labour posted a performance index between 3.6 and 7.0. More than half of schools that saved more than shs 240000 had a mean score of above 7.0. Basically, the amount saved was used to provide teaching/learning facilities other than paying school workers and thus enhanced student performance.

# 4.7.4: Free Tuition Secondary Education Funds and Student Performance

In order to subsidise the cost of secondary education the Kenyan government pays kshs 10,265 per child for tuition and other general operations since 2002. The amount received by each school was cross tabulated with school performance index as shown on table 4.62.

Table 4.62: Free Tuition secondary education funds per year and performance

FTSE funds	Performance			Total
	1-3.5	3.6-7.0	7.1-10.5	
Khs. 0-3000000	3	41	0	44
Khs. 3000001-6000000	0	8	2	10
Kshs 6000001-9000000	0	2	1	3
Over 9000000	0	1	3	4
Total	3	52	6	61

The total amount received through FSE funding depends on the total enrolment of each school. Nearly all the schools which received less than ksh 3000000 scored a mean index between 3.6 and 7.0. Also the schools that received more than ksh 9000000 got mean scores of more than 7.0. Consequently, the higher the government capitations the higher the school mean score. This can be explained by the fact that the money is used to purchase teaching /learning facilities like textbooks and laboratory equipment for effective instruction. Besides it ensures students spend more time in school since none is sent home for school fees. This enhances syllabus coverage and regular student testing both of which result into improved performance.

#### 4.7.5: Income Generating Activities (IGAs) funds and Performance in Examinations

The income generating activities result into monies that can be used to support the school learning programs. The amounts were cross tabulated with school performance index and the findings relayed on table 4.63.

Table 4.63: Income generating activities funds per year and performance

IGAs funds per annum		nce	Total	
	1-3.5	3.6-7.0	7.1-10.5	
Khs. 0-200000	2	42	0	44
Khs. 200001-400000	1	9	2	12
Over 400000	0	1	4	5
Total	3	52	6	61

Most of the institutions with less than ksh 200000 generated had a performance index between 3.6 and 7.0. The amount which can be realized from income generating activities determines the extent to which resources can be mobilized for school support services. The income generating activities create funds for budget support especially in the boarding vote head. It also creates a saving for the school which can be used for buying teaching-learning facilities. In some circumstances the savings could be used to cushion defaulters from absenteeism occasioned by lack of fees.

#### 4.8: Resource Mobilisation Strategies and Repetition in Schools

Another measure of internal efficiency that was taken into account was repetition. When students repeat a grade it means taking a longer time in school and also misuse of resources on learners who receive similar content in the subsequent year. The number of repeaters was cross tabulated with the strategies of resource mobilisation. The strategies included total user fees, funds from community initiatives, student labour payments, free secondary education funding and income generating activities.

#### 4.8.1: User Fee Payments and Repetition in the Schools

The number of repeaters in the schools was compared to the amount of fee paid by the students per year. The results were as shown on table 4.64.

Table 4.64: Total fee per annum and repeaters

Fee charged		Total		
	None	1-10	11-20	
<10,000	2	2	4	8
10001-20,000	1	9	18	28
20,001-30,000	0	6	10	16
30,001-40,000	0	3	6	9
Total	3	20	38	61

Evidently, the higher the fees charged the lower the number of repeaters. Students will not repeat grades when the cost of learning is high. If the parents are the ones paying then repetition will give them an extra burden. Students would rather be contented with the grades they have gotten in their first attempt. As such, to discourage repetition the learners should be encouraged to work harder. This will improve the internal efficiency of a school.

#### 4.8.2: Community Funding and Repetition in the Schools

The mobilisation of funds through community initiatives are meant to support the school programs. Repetition was cross tabulated with the amount of funding received through harambees and the results were as indicated on table 4.65.

Table 4.65: Community funds and dropout rates

		Total		
	None	1-10	11-20	
<500000	2	12	17	31
500001-1000000	1	3	5	9
1000001 and above	0	5	16	21
Total	3	20	38	61

It was found that schools which realised low collection from the communities had higher number of repeaters. This could be attributed to poor learning facilities leading to inadequate limited practical instruction and hence the need to take more time in school. To enhance internal efficiency as measured through repeater rates schools need to raise more funds through community involvement.

#### 4.8.3: Student Labour Mobilisation and Repetition in Schools

The use of students in executing some of the activities in the school can result into savings. The savings can be used to support instructional engagements. The interrelationship between total savings and number of repeaters was presented on table 4.66.

Table 4.66: Amount saved through student labour p.a and repeaters

Range of amount		Total		
	None	1-10	11-20	
Khs. 0-120000	1	27	20	48
Khs. 120001-240000	2	5	2	9
>240000	0	3	1	4
Total	3	35	23	61

The number of repeaters decreased with an increase in the money saved through use of student labour. This could be because of the fact that fee defaulters who would repeat because of inconsistent learning would offer their services to the schools and the would-be payment turned into fees. As such more involvement of learners in menial jobs can enhance internal efficiency of the schools.

# 4.8.4: Free Tuition Secondary Education Funding and Repetition in Schools

The free secondary education policy brought with it funding from the central government of Kenya. The total amount received was cross tabulated with the number of repeaters and revealed on table 4.67.

Table 4.67: Free tuition secondary education p.a and repeaters

		Total		
Total FTSE funds				
	None	1-10	11-20	
0-3000000	2	14	30	46
3000001-6000000	1	3	6	10
6000001-9000000	0	1	2	3
Over 9000000	0	0	2	2
Total	3	18	40	61

The higher the FTSE funding, the higher the number of repeaters in the schools. This relationship could be associated with the fact that more government subsidy reduces the cost of education to the individuals. Reduced cost of education can result into longer stay in school and the return to school of students who had dropped out. It is therefore imperative on the state to declare repetition illegal since it is a waste of national resources which in the long run could reduce internal efficiency of education.

# 4.8.5: Income Generating Activities (IGAs) and Repetition in the Schools

The amount of money collected from income generating activities was cross tabulated with the number of repeaters and the results were as shown on table 4.68.

Table 4.68: Total IGAs p.a and repeaters

Income	I	Total		
	None	1-10	11-20	
0-200000	2	17	26	45
200001-400000	1	6	7	14
400001-600000	0	0	2	2
Total	3	23	35	61

The number of repeaters went down as the income generated goes up. The reason could be due to consistency in learning. Students who hitherto could not pay through education are therefore supported and thus able to cover the set content in time and hence no need to repeat a grade.

# 4.9: Resource Mobilisation Strategies and Retention in Schools

The rate of retention is calculated by considering the total number of students who manage to remain within the education system as students move from one grade to the other. To evaluate it one must take into account the number of dropouts. As such the total number of dropouts was cross tabulated with the different resource mobilisation strategies.

# 4.9.1: Total Fees Charged and Retention Rates in the Schools

Table 4.69 shows the result of cross tabulation between total fees and the dropout rates which was used to reflect on retention rates.

Table 4.69: Total fee per year and dropout rates

Fee charged		Total		
	None	1-30	31-60	
<10,000	0	2	3	5
10001-20,000	0	26	2	28
20,001-30,000	0	17	3	20
30,001-40,000	0	2	6	8
Total	0	47	14	61

It is evident that schools charging between 10000 and 20000 per year had the highest dropout rates. This meant that they had a low retention rate. The schools are day schools which charge high fees thus discouraging the children of the poor which they were meant to serve. Further, the boarding schools which charge between 30000 and 40000 also had higher dropout rates since they are too expensive for a good number of students. As such there retention rates become relatively low. The low cost boarding school just like the low cost day schools had low dropout rates hence high retention rates because of reduced educational costs.

# 4.9.2: Community Funds and Retention Rates in the Schools

The number of dropouts was further cross tabulated with the amount of funds raised by schools through community initiatives. The findings were as indicated on table 4.70.

Table 4.70: Community funds and dropouts rates

Total amount		Total		
	None	1-30	31-60	
<500000	0	22	4	26
500001-1000000	0	16	3	19
1000001 and above	0	9	5	14
Total	0	47	14	61

A large number of the schools which collected less money from *harambees* had a few dropouts meaning that they retained more students. As shown on table 4.70, most schools which received below sh.500000 had realized only between 1 and 30 dropouts. The same trend is seen for schools which received amounts within the other ranges. When schools insist on collecting a lot of money from community members the poor parents are forced to withdraw their children from the schools whenever they are unable to bear the additional costs.

# 4.9.3: Savings from Students Labour and Retention Rates

The students were used to perform some duties which would otherwise need hired labour. The jobs were valued in monetary terms and the same considered as a savings to the school. When the amounts were cross tabulated against dropouts the results on table 4.71 were generated.

Table 4.71: Amount saved through student labour p.a and repeaters

Amount saved		Total		
	None	1-30	31-60	
Khs. 0-120000	0	22	7	29
Khs. 120001-240000	0	15	4	19
>240000	0	10	3	13
Total	0	47	14	61

Evidently, most of the schools that received below sh.120000 had the largest number of dropouts. As compared to the schools which received more savings, the low savers had more dropouts. This meant that the high savers had a high retention rate since the dropouts are fewer. The high retention rates results from the savings which can be used to cushion the likely fee defaulters. Again, the students who can offer their labour can be advised to pay through the work-for-fees program.

# 4.9.4: Free Tuition Secondary Education Funds and Retention Rates

The number of dropouts was cross tabulated with the total funds received through the state free secondary education program. The values were recorded on table 4.72.

Table 4.72: Free tuition secondary education funds per year and dropout rates

	Dropouts			Total
Total FSE funds				
	None	1-30	31-60	
0-3000000	0	39	7	46
3000001-6000000	0	6	5	11
6000001-9000000	0	2	1	3
Over 9000000	0	0	1	1
Total	0	47	14	61

Schools which received less than sh. 3000000 per year formed the largest group. It was apparent that as the total amount increased the number of dropouts went down. That meant that the large amount of FTSE funds facilitated high retention rates. The retention rates went up because of the fact that the funds covered a number of pecuniary costs of education which hitherto were paid by the parents. The school enrolments also went up with very few students dropping out.

#### 4.9.5: Total Amount from Income Generating Activities and Retention Rates

The activities which generate income in schools can influence the retentive ability of a school as shown in table 4.73.

Table 4.73: Total IGAs per year and retention rates

Income	-	Total		
	None	1-30	31-60	
0-200000	0	37	10	47
200001-400000	0	6	2	8
400001-600000	0	4	2	6
Total	0	47	14	61

The schools which had more income from their internal sources had fewer dropouts. Evidently, at every level of income the schools with less than 30 dropouts were more than those with thirty and above. The created income could be used to cover for the poor fee payers who would previously leave school. Retention rates are enhanced because no learner would lack fee since the schools can subsidise the ever increasing education costs.

# 4.10: A relationship between Financial Resource mobilization strategies and Internal Efficiency: A Correlation Analysis

Internal efficiency was measured in terms of three different quantities. These included the student performance in national examinations expressed in terms of school performance index. Another measure was repeater rate which was expressed as a percentage of the total enrolments in the schools. Finally, the retention rate expressed as a percentage of the total enrolments was also correlated to the various resource mobilisation strategies.

# 4.10.1: Financial Resource Mobilisation Strategies and Student Performance

To determine the relationship between student performance and the resource mobilisation strategies a correlation analysis was done. The strategies included total user fees charged, total community funds, income generating activities funds, free tuition secondary education funds and savings from use of student labour. The findings were as shown on table 4.74.

Table 4.74: Financial resource mobilisation strategies and student Performance: correlation matrix

	PERFOR MANCE	USER FEES	COMM FUNDS	IGAS	FTSE FUNDS	LABOUR SAVINGS
PERFORMANCE	1.000	0.710	0.274	0.772	0.805	0.728
USER FEES	0.710	1.000	0.349	0.742	0.898	0.750
COMM FUNDS	0.274	0.349	1.000	0.289	0.327	0.318
IGAs	0.772	0.742	0.289	1.000	0.867	0.766
FTSE FUNDS	0.805	0.898	0.327	0.867	1.000	0 .873
LABOUR SAVINGS	0.728	0.750	0.318	0.766	0.873	1.000

The relationship between the total user fees received by the schools was found to have a strong positive relationship with student performance as a measure of school internal efficiency(r=+ 0.710, p< 0.001). An increase in total fees collected translates into an increased performance index. Secondly the amount of community funds raised for a school had a weak positive relationship with student performance(r= 0.274, p< 0.001). Consequently, a boost in *harambee* collections would result into minimal increase in student performance. Thirdly, income generating activities funds and student performance as a measure of internal efficiency were found to be positively and strongly related (r=0.772, p< 0.001.). That is to say high returns from income generating activities will translate into increased internal efficiency as measured by student performance index.

Fourthly, free tuition secondary education funds had a very strong positive relationship with internal efficiency (r= 0.805, p< 0,001). As such, an increase in government capitation will increase the performance index of the schools. Finally, savings realised from use of student labour in school had a strong positive relationship with student performance(r= 0.728, p<0.001). Thus, an increased use of student labour in school will save the school expenditure and hence increased student performance index and thus enhanced internal efficiency.

#### 4.10.2: Financial Resource Mobilisation Strategies and School Repeater Rates

Within the education system internal efficiency can be seen in terms of how fast a student is able to move through the grades. There are those who would repeat grades thus using double resources in the subsequent year. The different strategies had divergent effects on repeater rates as depicted on table 4.75.

Table 4.75: Financial resource mobilisation strategies and repeater rates: correlation coefficients matrix

	Repeater rate	User fees	Communi ty funds	IGAs	FTSE funds	Labour savings
Repeater rate	1.000	0.186	0.049	0.145	0.153	0.062
User fees	-0.186	1.000	0.349**	0.742**	0.898**	0.750**
Community funds	0.049	0.349**	1.000	$0.289^{*}$	$0.327^{*}$	$0.318^{*}$
IGAs	0.145	0.742**	$0.289^{*}$	1.000	0.867**	0.766**
FTSE funds	0.153	$0.898^{**}$	$0.327^{*}$	0.867**	1.000	0.873**
Labour savings	0.062	0.750**	0.318*	0.766**	0.873**	1.000

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

When correlated, user fee payment showed an indirect relationship with repeater rates (r = -0.186, p <0.001). As such, the higher the user fees charged in schools the lower the repeater rates. Repeating would mean a double cost to the fee payers and would therefore ensure it is avoided. Again, high user fees would discourage students who had dropped out due lack of school fees from rejoining the school at the point they had left.

The amount of community funds collected had a positive relationship with repeater rates (r = 0.046, p < 0.001). The relationship was however very weak. In essence, the more money a school receives from community initiatives, the higher the number of repeaters. This is due to the fact that more community resources will reduce the user fees needed for infrastructure development. With lower charges, students who are slow learners can be encouraged to repeat in an attempt to learn effectively without incurring a lot of costs.

Money collected from Income Generating Activities (IGAs) had a positive relationship with repeater rates (r = 0.145, p < 0.001). The more the amount of money collected through school

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

initiatives, the high the number of repeaters. The reason being reduction of direct costs to the users encourage repetition. Schools would decide to charge lower fees as they get money from their farms and other local resources and this can encourage even those who had dropped out to rejoin school increasing the number of repeaters.

Funds received from Free Secondary Education program was found to be having a positive relationship with repeater rates (r = 0.239, p < 0.001). Consequently, FTSE funds had the strongest direct relationship with repeater rates. The higher the amount of FTSE funding, the higher the rate of repetition. Reduced private costs of education encourages repetition in schools as low achievers take longer in school and dropouts come back to school. This explains why school enrolments have almost doubled with the declaration of free education program in Kenya (Republic of Kenya, 2013).

Savings from using students labour had a direct relationship with repeater rates (r = 0.062, p < 0.001). As the savings increase the number of repeaters is likely to increase though minimally. This can be explained by the fact that the savings expands the financial base of the school and thus making it cheaper even to stay longer in school. The work-for-fees program can also enable slow learners to finance their own education.

# 4.10.3: Financial Resource Mobilisation Strategies and School Retention Rates

School retention rate shows how efficient a school is by taking into account the ability of a school to carry with itself all the students who enrolled into it from initial to final grade. Schools with high retention rates are said to be more efficient than those which experience low retention rates. It is in that background that the financial resource mobilisation strategies were correlated to school retention rates. The correlation coefficients were as shown on table 4.76.

Table 4.76: Financial resource mobilisation strategies and retention rates: correlation coefficients matrix

	Retention rate	User fees	Community funds	IGAs	FTSE funds	Labour savings
Retention rate	1.000	0.196	0.011	0.094	0.218	0.118
User charges	-0.196	1.000	0.349**	0.742**	0.898**	0.750**
Community funds	-0.011	0.349**	1.000	$0.289^{*}$	$0.327^{*}$	0.318*
IGAs	0.094	0.742**	$0.289^{*}$	1.000	0.867**	0.766**
FTSE funds	0.218	$0.898^{**}$	$0.327^{*}$	0.867**	1.000	0.873**
Labour savings	0.118	0.750**	0.318*	0.766**	0.873**	1.000

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

The amount of user fees payable to a school had a negative relationship with student retention rates (r = -0.196, p< 0.001). As the fees amounts go up the retention rate of a school is likely to go down. The high fees will deny the children of the poor a chance to stay in school. An increase in user fees will increase the direct private costs of education which push out those who cannot afford from the school system. Even those who would have liked to repeat grades for better academic achievement would be discouraged. It thus becomes imperative to keep user funds as low as possible to enhance internal efficiency of a school through retention.

The community funds were found to have an indirect relationship with school retention rate (r = -0.011, p <0.001). As such an increase in the funds expected from the parents as harambee fund will lower the number of students in school. This explains why schools which levy high development funds had a high dropout rate for many learners cannot afford to pay due to poverty (Masese, 2005). Therefore, for a more internally efficient education system extra school levies should be reduced or be scrapped altogether.

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

The amount raised through income generation activities had a weak positive correlation with retention rates (r = 0.094, p < 0.001). As the generated funds increase, the number of students who stay in school amplify. Through the school generated income a number of students can be cushioned against the vagaries of educational expenses. Schools should therefore be encouraged to intensify their effort towards income generation to improve retention rates hence enhanced internal efficiency.

The funds received from Free Tuition Secondary Education (FTSE) had a positive correlation with retention rates (r =0.218, p<0.001). The more funds a school receives through state sponsored FSE, the higher the retention rate. The funds were meant to reduce direct private costs to education to enable more students enroll and stay in the schools. More students are able to remain in school because of reduced educational costs thus high retention rates and hence enhanced internal efficiency.

Finally, savings from use of student labor was found to be positively related to school retention rates. (r = 0.118, p < 0.001). The higher the amount saved through the use of student labour in a school the higher the retention rates. The program ensures that the school saves through not employing workers and the savings used to support the children of the poor who would otherwise dropout from the school. As such, to make the schools more internally efficient retention rates need to be enhanced through keeping more children in school and using their labour instead of hiring workers.

# 4.11: Relationship between School Internal Efficiency and Financial Resource Mobilization strategies: Regression Analysis

Linear regression was used to establish the extent to which the various resource mobilisation strategies influenced internal efficiency as measured by student performance in Kenya certificate of education, repeater rates and retention rates.

# **4.11.1:** School Performance and Financial Resource Mobilisation Strategies: Regression Analysis

To find out the extent to which each strategy influence school performance as a measure of internal efficiency a linear regression analysis was done and the regression coefficients were as indicated in table 4.77.

Table 4.77: School performance and financial resource mobilisation strategies: regression coefficients matrix

Independent variables		Standardized Coefficients	T	Sig
(Constant)	4.050		17.476	0.000
User Fees		0.005	0.029	0.977
Community Funds		0.006	0.067	0.947
IGAS		0.294	1.873	0.066
FTSE Funds		0.461	1.593	0.117
Labour Savings		0.096	0.595	0.554

From the regression coefficients the following linear relationship emerged.

$$Y_1 = 0.005X_{11} + 0.006X_{21} + 0.294X_{31} + 0.461X_{41} + 0.096X_{51} + 4.050$$

Where,

Y<sub>1</sub>- Internal efficiency as measured by students' performance (dependent variable)

X<sub>11</sub>- User Fees Payments

X<sub>21</sub>- Community Funds

X<sub>31</sub>- Income Generating Activities

X<sub>41</sub>- Free Tuition Secondary Education Funds

# X<sub>51</sub>- Student Labour Savings

From the above equation, the total amount of fees a school collects had a positive relationship with students' performance. However, the relationship was found to be weak (0.005). Further the meant that a only a 0.5% proportional change in internal efficiency as measured by student performance would be as a result of the amount of school fees payable. The money raised by community members also had positive (0.006) though insignificant relationship with student performance as a measure of internal efficiency of the schools. Additionally, it can be argued that a 0.6% variation in student performance as a measure of internal efficiency would be associated to community funds.

The variable which had significant and positive relationship with performance as a measure of internal efficiency was income generating activities. From a regression coefficient of 0.294 it can be said that in every proportional change in student performance as a determinant of internal efficiency, 29.4% of the variation can be related to funds got from income generating activities. Another variable which was found to have a strong positive relationship with student performance was free tuition secondary education funds with a regression coefficient of 0.461. From that one can conclude that almost fifty percentage variation in student performance results from a change in FTSE funds. Finally, savings which are made from using students labour instead of hiring school workers positively affected performance though not very strongly (0.096). It is important to note that according to the findings of this research, over 86% of the level of performance as a measure of internal efficiency of a school depends on availability and use of financial resources other factors constant.

From the regression analysis it was also found that FTSE funds had the greatest impact on school internal efficiency. User fees had the lowest effect. The findings could be attributed to

the fact that the introduction of FTSE ensured high retention rates and thus enhanced examination performance.

# 4.11.2: The Relationship between Repeater Rates and Resource Mobilisation Strategies: Regression Analysis

Another measure of internal efficiency which was considered is repetition rate. The numbers of students who repeat classes use extra time in school and also use double the resources on the same content. To establish how it is influenced by resource mobilisation strategies a regression analysis was done. The regression coefficients were as shown on table 4.78.

Table 4.78: Repetition rate and financial resource mobilisation strategies: regression coefficients

Variables		Standardized Coefficients	Т	Sig.
(Constant)	3.405		4.857	0.000
User fees		-0.037	-0.154	0.878
Community funds		-0.027	-0.186	0.853
IGAs		0.125	0.460	0.647
FTSE		0.276	0.708	0.482
student labour		-0.250	-0.911	0.366

From the regression coefficients the following linear regression equation was derived;

$$Y_2 = 3.405 - 0.037X_{12} - 0.027X_{22} + 0.125X_{32} + 0.276X_{42} - 0.250X_{52}$$

Where,

Y<sub>2</sub>-internal efficiency as measured by repeater rates (dependent variable)

 $X_{12}$ - user fees payments

X<sub>22</sub>- community funds

X<sub>32</sub>- income generating activities funds

X<sub>42</sub>- free tuition secondary education funds

amount for one class as the school fees is raised.

X<sub>52</sub>- student labour savings

From the regression equation, user fees payments had a negative impact (-0.037) on repeater rate. That means if there is a percentage decrease in repeater rate then 3.7% of that change can be associated to user fees payment. Total fees payable had an indirect relationship with repetition of students since increased fees results into lower repetition because it will be an additional cost which parents cannot afford. The parents would not like to pay double the

In the same vein, community funds had a negative influence (-0.027) on repeater rates. This meant that if there is a percentage decrease in repeater rate then 2.7% of that variation is due to an additional community levy. When the amount collected through community initiatives is higher, students who cannot afford development funds are cushioned thus low repetition rates. Furthermore, many harambees will discourage students who would want to stay in school longer.

On the other hand, funds from income generating activities had a direct relationship (0.125) with repeater rates. Going by that, if there is a percentage increase in repeater rate then 12.5% of the increase can be as a result of funding from income generating activities. With income generating activities, schools can bolster the poor students against being sent home for fees. This can encourage repetition because the private costs are reduced.

Free secondary education funds had a positive relationship (0.276) with repeater rate in the schools. This meant that a 27.6 percentage increase in repeater rate is accounted for by the amount of free secondary education funds. When the government subsidy increases, repeater rates go up due to increased number of school dropouts who rejoin the schools at the grades they had left at. Also, students who want to better their terminal grades repeat without stress because the state funds all the learners in school.

Student labour savings had a negative relationship (-0.250) with student repeater rates. Accordingly, if there is a percentage decrease in repeater rates then 25.0% is associated with the savings from use of student labour. Use of student labour saves for the school and could therefore lead into lower repetition, since even fee defaulters would stay in school. The poor students could even pay fee in kind through offering their labour and thus learn continuously.

# 4.11.3: The Relationship between Retention Rates and Resource Mobilisation Strategies: Regression Analysis

In an attempt to find out the relationship between the ability of the schools to retain students and the resource mobilisation strategies a regression analysis was done. The coefficients that emerged when retention rates were regressed against the resource mobilisation strategies were shown on table 4.79.

Table 4.79: Retention rate and financial resource mobilisation strategies: regression coefficients

Variables	Standardized Coefficients	Т	Sig.
(Constant) 116.581		4.857	.000
User fees	072	154	.878
Community funds	071	186	.853
IGAs	.093	.460	.647
FTSE	.021	.708	.482
Student labour	009	911	.366

From the coefficients the following equation was derived;

$$Y_3 = 0.072X_{13} - 0.071X_{23} + 0.093X_{33} + 0.021X_{43} - 0.009X_{53} + 116.581$$

Where,

Y<sub>3</sub>. internal efficiency as measured by retention rate (dependent variable)

 $X_{13}$ - user fees payments

X<sub>23</sub>- community funds

 $X_{33}$ - income generating activities funds

X<sub>43</sub>- free tuition secondary education funds

X<sub>53</sub>- student labour savings

The total school fee collected by a school affects student retention positively (0.072). That meant that if there is an upward change in school retention rate then 7.2% of the variation is as a result of fee payment. It demonstrates that the more fees a school is able to collect the

more students it will retain in school since service delivery will improve and thus high internal efficiency. However, arbitrary increment of school levies can result into high dropout rates as the cost of education goes up affecting retention negatively.

Community based collections had a negative (-0.071) relationship with retention rates since it increases the extra education levies. This can be interpreted to mean that any percentage decrease in retention rate 7.1% can be attributed to increase community fund levies. It was found that the amount of community funding influenced retention rates indirectly. The more the community funds, the more the dropouts and hence low retention rates and consequently reduced internal efficiency.

Income generation activities influence school retention positively (0.093). The higher the income generated the higher the school retention rates. That means that if there is a proportional change in retention rate the 9.3% of the change is as a consequence of the amount of funds from income generating activities. The income so earned can be used to support the needy students and thus keeping them in school.

Another factor that influences retention directly is free secondary education funds. The coefficient of regression was found to be 0.021 which signifies that a 2.1 percentage variation in retention rate can be attributed to free tuition secondary education funds. More students would therefore stay in school consistently translating into high retention rates since no student would dropout due to lack of school fees.

The saving from student labour had a negative relationship (-0.009) with retention rates. Apparently the relationship was very weak. The interpretation would be that a 0.9 percentage negative change in retention rate is accounted for by savings from student labour. The savings from student labour increases the level of student responsibilities. Most students don't like menial duties and some can opt out of the school leading to lower retention rates

hence the negative relationship. Reduced retention is an indication of lack of internal efficiency.

# **4.12: Discussion of Findings**

Financial resources mobilised through Income Generating Activities were found to be positively related to internal efficiency of the schools. The proceeds were used to subsidize the lunch and boarding budgets hence releasing more funds for tuition related activities. As had been found by Wesonga (1996) in Kakamega district, IGAS had a potential of supporting learning programmes but was underutilised. Similarly, Singh (1988) reported that the IGAs in most UNESCO member countries tended to be opportunistic in their choice of activities which were uncoordinated across education institutions and limited in scale. However, the research in the contrary found out that as much as the IGAs had a positive influence if it is not well managed the profit making motive might override their contribution towards internal efficiency.

Use of student labour in addition to school staff providing services to community members had positive influence on student learning and performance thus internal efficiency of schools. For instance, when students work in the school farm they are likely to internalise best agricultural practices and would perform better in agriculture and related subjects. As had been observed by Ngware (2007), mobilisation of resources through entrepreneurial ability students and staff would maximise returns as it enables schools to create financial resources and provide practical learning experience. Conversely, this research found out that if not checked the staff members would exploit the school facilities for personal gain at the cost of students' performance.

The study found out that the total Free Secondary Education funds had a positive and significant effect on internal efficiency of the schools in Rachuonyo south sub county.

Enhanced state capitation ensured more teaching and learning facilities which means consistency in school attendance and concomitant performance. Free secondary education policy helped increase transition rates in Kenya from 62.5% to 81% in 2007 as indicated in a UNESCO survey in 2010 (Ngware,2007). However, the policy was found to be faced by a myriad of challenges; most schools had been overenrolled leading to a low teacher / student ratio which impacts negatively on school internal efficiency.

Government subsidy is supported because social benefits of education exceed private benefits. It is also advocated for to ensure equity and equality of opportunity irrespective of one's socio-economic status. Finally, education is subject to economies of scale and thus it is more efficient to finance and provide education as a public good (Psacharopoulos, 1985). As found in the research government subsidy through the FTSE program created some exigencies. It created over enrolment and laxity among parents and also benefits the rich more than the poor. This is in tandem with the findings of Jallade (1973) and Psacharopoulos (1985). The two argued that public subsidies for education in developing countries had the perverse effect of transferring income from poor tax payers to rich families whose children benefit from subsidised education.

Community resource mobilisation was found to have a positive influence on school internal efficiency. More resources got through *harambee* would be used to acquire teaching and learning resources to boost student examination performance. But if over stressed it can be retrogressive as had been observed by Acholla (1988). Intensive *harambee* collections will push the children of the poor out of school since their parents cannot meet the set target at the right time. Increased dropping out would be a sign of lack of internal efficiency.

Payment of user fees was found to have a positive but insignificant relationship with internal efficiency. That meant that an increase in school fees would increase student performance

though minimally. An attempt to provide tuition free education will increase school retention rates. This corroborates to the findings of Thobani (1983) in Malawi where open door policy of admission was implemented. Nevertheless, increased demand for education due to reduced cost is likely to affect internal efficiency negatively.

#### **CHAPTER FIVE**

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### **5.1: Introduction**

The chapter presents the summary, conclusions and recommendations of the study. It is organised in line with the objectives of the study which included:

- (i) To determine the effect of financial resource mobilisation strategies on internal efficiency of public secondary schools in Rachuonyo South sub county.
- (ii) To establish the challenges experienced by head teachers as they employ the different resource mobilisation strategies.
- (iii) To assess the extent to which mobilised financial resources are effectively used to ensure internal efficiency of the public secondary schools.
- (iv) To determine the measures of internal efficiency in the public secondary schools in Rachuonyo South sub county
- (v) To suggest how the public secondary schools can expand their financial resource base to ensure sustainable internal efficiency.

# **5.2 Summary**

The study on financial resource mobilization strategies and internal efficiency of public secondary schools was done in Rachuonyo south sub county of Homa-Bay County. The measures of internal efficiency established confirmed that internal efficiency of education in Rachuonyo south sub-county was relatively high but with effective financial resource mobilisation it could be improved. The resource mobilization strategies were measured in monetary terms while internal efficiency was expressed in terms of repeater and retention

rates as well as performance index. The research found out that the resource mobilization strategies used by the schools included; payment of user fees, receipt of government subsidy and grants, running endowment funds and foundations, NGO funding ,organization of *harambees*, savings from human resource and time rationalization and funds from income generating activities.

The research found out that schools which charge and collect more fees on average perform better academically. The schools also had high retention rates and low wastage rates hence high internal efficiency. The receipt of government subsidy through the FTSE program was found to have enhanced internal efficiency since it had reduced both dropout and repeater rates. Also it had improved instructional facilities translating into good examination performance. Though underutilized, foundations and endowments did positively influence school retention rates through providing scholarships to bright and needy students. *Harambee* funds helped subsidize development of school infrastructure which locks the children of the poor from school. It therefore enhanced retention and transition rates which signify high internal efficiency. The proper use of time and human resource in school enhances learning and thus internal efficiency. In terms of resource mobilization, the rationalization of the two creates savings which reduce cost of education and hence improved internal efficiency. Income generation activities create finances which would support instructional activities and thereafter positively influencing retention rates and performance.

The regression analysis results showed that student performance as a measure of internal efficiency had positive relationship with all the considered resource mobilisation strategies. Retention rates have positive relationship with all the strategies in question a part from community funds which showed a negative relationship. Finally, repetition rates had a positive variation with income generating activities and FSE. The strategies of user fees, community funds and student labour however had negative relationship with repetition rates.

The resource mobilisation strategies were found to be faced by a number of challenges. It was found out that tracing old student to join the foundations, Alumni or endowment funds was difficult while the schools lack funds for coordination and limited experience in organizing the foundations. Mobilising funds from NGOs was impeded by the recipient communities' lack of commitment due to poverty while some of the NGOs delayed in releasing the funds. Funds raised through harambees were dogged by low turnout thus limited mobilisation, lack of interest by community members, unnecessary pressure from the state machinery, high organisation expenses, limited preparation time and interference with learning time. The government subsidy had a challenges like; delay in disbursement, low capitation, over enrolment into schools and mismanagement by head teachers. User fees was poorly paid due to; poverty of parents, large number of vulnerable students as result of parental deaths, negative attitudes towards fee payment, high cost of living, wrong belief in FTSE program, student nomadism and localisation of schools.

To mobilise more resources for the schools, the study found out that the state needs to increase the capitation per child; the schools should involve in appropriate income generating activities, establish alumni organizations and engage positively with NGOs. The schools should also ensure the effective use of student labour to save for the schools, rationalise their human resource and encourage teachers to use their entrepreneurial flare to support the school programmes. To effectively mobilise and use the financial resources there must be efficient time management.

### **5.3: Conclusions**

From the findings of the study a number of conclusions were made; the schools in Rachuonyo south sub county exhibited a number of peculiarities. In terms of measures of internal efficiency, the repeater rate was found to be relatively low. The low repeater rate was

an indication of high internal efficiency because it would take the learners a shorter time to complete the secondary school cycle as well as low resource consumption. The grade to grade dropout rate stood at 3.8%. This meant that the internal efficiency of the schools was high since nearly all the students who started form one were able to complete the cycle of education. Finally the cohort wastage rate was found to be slightly higher (16%). This meant that there was a high wastage rate as a group of students move from form one up to form four from one class to the other. Some of them would dropout as others repeat grades leaving about 84% to complete the cycle at the expected time.

The resource mobilisation strategies had varied relationships with internal efficiency as measured by examination performance, retention rates and repeater rates. Income generating activities, free tuition secondary education and student labour savings had positive relationship with student performance. Total fees charged and community funds also had positive relationship with performance though not statistically significant. Conclusively it was found that about 86% of variation in student performance hinges on availability of school resources. Therefore to positively influence school internal efficiency effective resource mobilisation strategies must be employed.

Fee payment, free secondary education fund, income generation activities were found to be having direct relationship with retention rate as a measure of internal efficiency. This meant that to improve retention and make the schools more internally efficient, the three strategies of resource mobilisation need to be enhanced. However community funds and student labour were found to be indirectly related with school internal efficiency. Intensification of the two strategies will reduce the retention rates since most parents will not be able to afford the increase in funding while the students would hate laborious activities.

It was found that user fees, community funds and student labour had negative relationship with repeater rate as a measure of internal efficiency. This meant that an increase in any of them will result into a decrease in repeater rate among the learners making the schools more internally efficient. Nevertheless, free secondary education funds and income generating activities were found to be having positive relationship with repeater rate. The two strategies will increase repeater rates since the learners will not feel the cost of repeating any grade.

The head teachers had several challenges as they used the various resource mobilisation strategies to ensure internal efficiency. Payment of school fees was found to be poor because of general poverty levels among parents, a large number of orphaned learners, and negative attitude of parents towards education, belief in state funding, high cost of living and student nomadism. These challenges would be solved through a number of measures. Such would include, creation of bursary schemes, involving in income generating activities, sensitisation of parents and allowing payment of fees in kind. The FTSE program was found to be faced by a number of bottlenecks. They included, delay in disbursement, low capitation, over enrolment in schools, mismanagement and misappropriation of funds. The suggested solutions included, timely disbursement, single tranche release, hiring of more teachers strict accounting and budgeting, tendering and strict adherence to ministry of education guidelines. Another strategy with challenges was community funding, such included, being time consuming, and lack of interest among stakeholders, high overhead expenses, and low attendance. To solve the problems, there is need of involvement of all stakeholders, enhanced sensitisation and setting realistic targets in addition to transparent use of the raised funds.

The schools realised a number of challenges in their attempt to engage the Non-governmental organisations in mobilising resources. The main handicap was limited community support of projects. Also there was a problem of delayed funding and lack of adherence to funding conditionalities. The solutions included writing fundable proposals,

proper accountability and publicity. The other strategy was use of endowments and foundations. Its bottlenecks included limited working experience, lack of funds, inability to trace old students and lack of support from school boards of management. To solve the problems the schools must keep track of their former students, approach local achievers, initiating exchange programmes and encouraging schools to save for foundations. Another resource that posed challenges was time. Poor time management resulted into lateness in school programmes, inadequate syllabus coverage and increased paid remedial lessons. To alleviate the problems it was recommended that punctuality, time tabling, close supervision and rewarding time keeping be encouraged. The human resource management suffered from a number of hiccups; lack of funds, incompetence and nepotism. These could be addressed through proper job description, commensurate pay, meritocracy, mutual relationship and respect of qualification. Financial management was bogged with a number of handicaps; poor maintenance of books of accounts, lack of financial management skills, poor budgeting and inadequate supervision. The solutions included; efficient procurement, proper accounting procedures, capacity building and effective store management.

The total amount of fees a school collects had a positive relationship with students' performance. However, the relationship was found to be weak (0.005). Further this meant that only a 0.5% proportional change in internal efficiency as measured by student performance would be as a result of the amount of school fees payable. The money raised by community members also had positive (0.006) though insignificant relationship with student performance as a measure of internal efficiency of the schools. Additionally, it can be argued that a 0.6% variation in student performance as a measure of internal efficiency would be associated to community funds.

The variable which had significant and positive relationship with performance as a measure of internal efficiency was income generating activities. From a regression coefficient of 0.294

it can be said that in every proportional change in student performance as a determinant of internal efficiency, 29.4% of the variation can be related to funds got from income generating activities. Another variable which was found to have a strong positive relationship with student performance was free secondary education funds with a regression coefficient of 0.461. From that, one can conclude that almost fifty percentage variation in student performance results from a change in FTSE funds. Finally, savings which are made from using students labour instead of hiring school workers positively affected performance though not very strongly (0.096). It is important to note that according to the findings of this research, over 86% of the level of performance as a measure of internal efficiency of a school depends on availability and use of financial resources other factors constant.

From the regression analysis it was also found that FTSE funds had the greatest impact on school internal efficiency. User fees had the lowest effect. The finding was attributed to the fact that the introduction of FTSE ensured high retention rates and thus enhanced examination performance.

The total school fee collected by a school affects student retention positively (0.072). That meant that if there is an upward change in school retention rate then 7.2% of the variation is as a result of fee payment. It demonstrates that the more fees a school is able to collect the more students it will retain in school since service delivery will improve and thus high internal efficiency. However, arbitrary increment of school levies can result into high dropout rates as the cost of education goes up affecting retention negatively.

Community based collections had a negative (-0.071) relationship with retention rates since it increases the extra education levies. This can be interpreted to mean that any percentage decrease in retention rate 7.1% can be attributed to increased community fund levies. It was found that the amount of community funding influenced retention rates indirectly. The more

the community funds, the more the dropouts and hence low retention rates and consequently reduced internal efficiency.

Income generation activities influence school retention positively (0.093). The higher the income generated the higher the school retention rates. That means that if there is a proportional change in retention rate the 9.3% of the change is as a consequence of the amount of funds from income generating activities. The income so earned can be used to support the needy students and thus keeping them in school.

Another factor that influences retention directly is free secondary education funds. The coefficient of regression was found to be 0.021 which signifies that a 2.1 percentage variation in retention rate can be attributed to free secondary education funds. More students would therefore stay in school consistently translating into high retention rates since no student would dropout due to lack of school fees.

The saving from student labour had a negative relationship (-0.009) with retention rates. Apparently the relationship was very weak. The interpretation would be that a 0.9 percentage negative change in retention rate is accounted for by savings from student labour. The savings from student labour increase the level of student responsibilities. Most students don't like menial duties and some can opt out of the school leading to lower retention rates hence the negative relationship. Reduced retention is an indication of lack of internal efficiency.

From the regression equation, user fees payments has a negative impact (-0.037) on repeater rate. That means if there is a percentage decrease in repeater rate then 3.7% of that change can be associated to user fees payment. Total fees payable had an indirect relationship with repetition of students since increased fees results into lower repetition because it will be an additional cost which parents cannot afford.

In the same vein, community funds had a negative influence (-0.027) on repeater rates. This meant that if there is a percentage decrease in repeater rate then 2.7% of that variation is due to an additional community levy. When the amount collected through community initiatives is higher, students who cannot afford development funds are cushioned thus low repetition rates. Furthermore, many *harambees* will discourage students who would want to stay in school longer.

On the other hand, funds from income generating activities had a direct relationship (0.125) with repeater rates. Going by that, if there is a percentage increase in repeater rate then 12.5% of the increase can be as a result of funding from income generating activities. With income generating activities, schools can bolster the poor students against being sent home for fees. This can encourage repetition because the private costs are reduced.

Free secondary education funds had a positive relationship (0.276) with repeater rate in the schools. This meant that a 27.6 percentage increase in repeater rate is accounted for by the amount of free secondary education funds. When the government subsidy increases, repeater rates go up due to increased number of school dropouts who rejoin the schools at the grades they had left at. Also, students who want to better their terminal grades repeat without stress because the state funds all the learners in school.

Student labour savings had a negative relationship (-0.250) with student repeater rates. Accordingly, if there is a percentage decrease in repeater rates then 25.0% is associated with the savings from use of student labour. Use of student labour saves for the school and could therefore lead into lower repetition, since even fee defaulters would stay in school. The poor students could even pay fee in kind through offering their labour and thus learn continuously.

The research therefore concluded that to maintain and improve internal efficiency of public secondary schools; the institutions must identify the readily available resources locally,

mobilize both material and non-material resources to support their budget, ensure that the strategies applied are cost effective and time sensitive, use the generated income to cushion the bright and needy students, create a conducive learning environment and ensure reduced dropout and repeater rates coupled with good academic performance. All these would ensure sustainable school internal efficiency.

# **5.4: Policy Recommendations**

As a result of the findings of the research the following policy recommendations were made to help improve resource mobilization and internal efficiency in secondary schools;

- 1. Every school should endeavour to mobilize local resources to support their budgets, give remissions to the needy and bright and sustain their growth. This will ensure consistency in learning resulting into low dropout rate and improved performance. Both will translate into high internal efficiency.
- 2. All income generation activities must be formalized and their proceeds officially receipted and put in a specific vote head. The income should be reflected on the monthly trial balance of the school to avoid embezzlement of the profits. The earnings need to be ploughed back in the school system to cushion the poor against high cost of education so as to reduce wastage in education and ensure internal efficiency.
- 3. Evidently, entrepreneurship skills and attitudes should be inculcated into all teachers and learners to help them become innovative and thus more productive. Creativity ensures effective financial resource management. Head teachers will be more industrious if they have mobilization and project management skills. With more knowledge and skills schools will be more efficient.

- 4. Checks and balances need to be put in place to ensure that the resource mobilization strategies do not interfere with core objectives of the school. Any aspect of a strategy that can negatively impact on learning activities must be galvanized. Resource mobilisation if not checked can be counterproductive and thus lowering internal efficiency.
- 5. For efficient school management repetition and dropping out of students which was evident in the schools amounts to wastage of resources and can be curtailed through cost reduction, cost recovery and improvement of both home and school environment. The effective implementation of free secondary education policy which is reliable and timely becomes imperative in enhancing internal efficiency of schools.
- 6. Proper management of time and human resource should be encouraged since it enhances savings which can be used to improve the financial fortunes of a school. The created financial resources can be used to support learning programmes translating into improved internal efficiency.

# 5.5: Recommendations for Future Research

Going by the findings of the research the following recommendations were made for future research;

- 1. A comparative study of effect of resource mobilization strategies on internal efficiency of public secondary schools in different sub counties since the resources are specific to each region. This study could not do that because lack of time and financial resources.
- 2. The extent to which the various income generating activities influence student performance in secondary schools. It was not possible to delimitate the effects because of dearth of information and proxy measures to use.

- 3. The causes of internal inefficiency in Kenyan learning institutions and how they can be mitigated. The scope of the study narrowed down to school-based resources but there are other non-school variables which influence internal efficiency of schools.
- 4. The resource mobilization strategies and their application in both primary and tertiary institutions. Tertiary levels could mobilise more resources due to their training abilities but they were out of scope of this study.

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#### **APPENDIX**

# APPENDIX 1: HEAD TEACHERS' QUESTIONNAIRE (HQT)

The purpose of this study is to examine the strategies used by schools to mobilize financial resources, their prospects, perspectives, problems and impacts on schools internal efficiency in the public secondary schools in Rachuonyo South Sub-County; Kenya. The information shall be used purely for research purposes. Do not write your name or that of the school. Your response is voluntary and shall remain confidential. You are required to be as truthful and objective as possible. Fill in all the blank spaces or put a tick whenever necessary.

# A. School General Information

# 1. Tick the school category

Boarding	Day &Boarding	Day with Lunch

# 2. What are the physical resources available in school

School	Posho	School	livestock	Fish	Bakery	Greenhouse
bus	Mill	farm		pond		

3.	School	Fees	Pay	vment
· ·	2011001	1000		,

a) Total annual fee charged per student in the past four years

2009	2010	2011	2012

Average annual fees (i) less than 10000 (ii) 10001-20000 (iii) 20001-30000 (iv) over 30000

b) The annual fee is paid in how many instalments?

ONE	TWO	THREE

c) How many students completed school fee payment in the past four years?

Year	None	Less than half	More than half	All
2009				
2010				
2011				
2012				

(i) None (ii) less than half (iii) more than half (iv) all

d) School enrolment in the last four years

Year	Less than 200	Between 200-400	More than 400
2009			
2010			
2011			
2012			

	2011				
	2012				
	Average enrolm	nent (i) less than	   200 (ii) 200-400 (iii) al	pove 400	
e)	In your opinion s	state the factors the	hat contribute to poor f	ee payment in your	sch
	(i)				
	(ii)				
	(iii)				
	(iv)				
f)	What measures v	vould you take to	improve fee payment	in the school?	
	i)				
	ii)				
	iii)				
	iv)				
g)	Suggest ways thr	ough which the	school can use to make	savings.	
	(i)				
	(ii)				
	(iii)				

h)	In your considered opinion wha	t problems face head teacher	rs as financial managers?
	(i)		
	(ii)		
	(iii)		
	(iv)		
	(v)		
i)	How does fee defaulting affect	students' performance, reten	tion and repetition in your
	school?		
	(i)		
	(ii)		
	(iii)		
j)	Why would head teachers charg	ge more fees than the set gov	vernment ceiling?
	(i)		
(	(ii)		
(	(iii)		
(	(iv)		
B. Go	vernment Subsidy-Free Tuition	Secondary Education (FT	'SE)
1.	Is your school funded by the mi	nistry of education?	
	Yes	No	

2.	In your opinion what are the positive effects of FTSE funding in your school				
	(i)				
	(ii)				
	(iii)				
3.	Give the problems facing FTSE funding in your school.				
	(i)				
	(ii)				
	(iii)				
	(iv)				
4.	What are the problems created in your school by the FTSE program?				
	(i)				
	(ii)				
	(iii)				
4.	What is your school doing to ensure that FTSE funds are not misused?				
	(i)				
	(ii)				
	(iii)				
	(iv)				
5.	How has FTSE program impacted on students' performance, retention and repetition?				
	Positive impacts				
	(i)				
	(ii)				

	Negative impacts					
	(i)					
	(ii)					
	(iii)					
	(iv)					
C. Community Funds/ Harambee.						
1. How much money did you collect through <i>harambee</i> ?						
	Year	Amount Below 500,000	500,001-1000,000	Over 1000,000		
	2009					
	2010					
	2011					
	2012					
Average harambee collections						
(i)	i) Below 500,000					
(ii)	ii) 500001- 1000000					
(iii)	iii) Over 1000000					
2. V	2. Which projects did you accomplish using the <i>harambee</i> funds?					
(	(i)					
(	(ii)					
(	(iii)					

3.	What challenges did you meet	when organizing the haram	bee in your school?
	(i)		
	(ii)		
	(iii)		
	(iv)		
4.	In your opinion what would yo	ou do to improve harambee	collections in your school?
	(i)		
	(ii)		
	(iii)		
5.	How would harambees influence	ce student's performance, re	petition and retention?
	(i)		
	(ii)		
	(iii)		
D.	Non-governmental organization	ons funding	
1.	Have you been funded by NGO	O?	
	Yes	No	
			1
2.	If no, why?		
	(i)		
	(ii)		
	(iii)		

3.	Lis	st the NGOs that have funded projects in your school
	(i)	
	(ii)	
	(iii	
	(iv	
	(v)	
	4.	Which challenges did you meet in working with NGOs in your school?
	(i)	
	(ii)	
	(iii)	
	5.	In your own opinion what would you do to involve more NGOs in your school
		projects?
	(i)	
	(ii)	
	(iii)	
	6.	What effects can NGO funding have on students' performance, repetition and
		retention?
		(i)
		(ii)
		(iii)

## E. Foundation /Endowments /Alumni Contributions.

1. Does the school have any of the following?

	Yes	No
Foundation		
Alumni		
Endowment fund		

	Endowment fund			
2.	What contribution does	any of the above ma	ake towards projects i	in your school?
	(i)			
	(ii)			
	(iii)			
3.	Which challenges are y	ou likely to meet v	when initiating a fou	ndation/ endowment/
	(i)			
	(ii)			
	(iii)			
	(iv)			
4.	What are the likely effective retention and repetition?		nni/endowment on st	cudents' performance,
	(i)			
	(ii)			

## F. Time Management.

1.	How many hours does your school dedicate to class work daily?
	(i) Less than 8hours (ii) 8 hours (iii) more than 8 hours
2.	What initiatives do you have in your school to enhance proper time management?
	(i)
	(ii)
	(iii)
	(iv)
3.	What do you consider as time-wasters in your school?
	(i)
	(ii)
	(iii)
	(iv)
4.	What challenges do you meet as result of poor time management in your school?
	(i)
	(ii)
	(iii)
5.	How would time management influence students' performance, retention and repetition in
	your school?
	(i)
	(ii)
	(iii)

## **G.** Human resource mobilization

1.	List the assignments you engage students in instead of hiring school workers?		
	(i)		
	(ii)		
	(iii)		
	(iv)		
2.	How much do you save for	the school through the use	of students labour?
	0-120,000 p.a	120,001 -240,000 p.a	Over 240,000 p.a
3.	How do you motivate teach	ers and non-teaching staff	in your school?
	(i)		
	(ii)		
	(iii)		
	(iv)		
4.	List the reasons which have	led to loss of workers in y	our school?
	(i)		
	(ii)		
	(iii)		
	(iv)		
	(v)		

_	D	1 .	•	. •		1 1
<b>`</b>	Rate the	working.	environn	nent in	vour	school
$\sim$ .	rate the	W OI KING			jour .	3011001.

Very Pleasant	Pleasant	Bearable	Unbearable

6.	Wh	at challenges do you n	neet in hiring and n	l naintaining your staf	f?	I
	(i)					
	(ii)					
	(iii)					
	(iv)					
7.	Wh	at are the likely impa	cts of efficient hur	man resource manaş	gement on your s	tudents
	perf	formance, repetition ar	nd retention?			
	(i)					
	(ii)					
	(iii)					

## **H.** Income Generating Projects

1. Fill in the table below.

No	Activity	Average income p.a	Challenges
1	School farm activities		
1	School farm activities		
2	School bus hiring		
3	School halls/dormitory kitchen		
	use		
4	Use of field		
5	Sale of trees/ timber		
6	Rent form teacher's houses		
7	Posho mill use		
8	Bakery / deep freezer		
9	Typing /printing /photocopy		
10	Others (specify)		
	Total		

Total income generated;

(i) 0-200,000 (ii) 200,001-400,000 (iii) 400,001-600,000

	1. What are the benefits of income generating projects in your school?
	(i)
	(ii)
	(iii)
	(iv)
	2. In your opinion what are the effects of income generating projects on your school's
	academic performance, retention and repetition?
	(i)
	(ii)
	(iii)
	(iv)
<b>I.</b> I	Financial Resource Management
1.	In your opinion what could be some of the sound financial management practices in your
1.	In your opinion what could be some of the sound financial management practices in your school?
1.	
1.	school?
1.	school? (i)
<ol> <li>2.</li> </ol>	school? (i) (ii)
	school?  (i)  (ii)  (iii)
	school?  (i)  (ii)  (iii)  Why should school accounts be audited every year?
	school?  (i)  (ii)  (iii)  Why should school accounts be audited every year?  (i)

3.	In your opinion what could be the causes of mismanagement of school funds?
	(i)
	(ii)
	(iii)
	(iv)
4.	Suggest ways of ensuring efficient management of financial resources of your school?
	(i)
	(ii)
	(iii)
	(iv)
	(v)
5.	How can financial mismanagement influence students' performance, retention and
	repetition?
	(i)
	(ii)
	(iii)

# J. Internal efficiency

Fill in the table below on the flow of student in your school.

Form/year	Enrolment			
	2009	2010	2011	2012
Ι				
II				
III				
IV				

# K. Repeaters:

Form	No of repeaters		
	2011	2012	
I			
II			
III			
IV			

l.	<b>School</b>	performance	in	<b>KCSE</b>

Year	School mean
2009	
2010	
2011	
2012	

### THANK YOU FOR PARTICIPATING.

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Department of Education Administration & Planning.

#### APPENDIX II: INTERVIEW SCHEDULE FOR HEAD TEACHERS

- 1. What are the common challenges you meet as a head teacher in financial management of the school?
- 2. Which hardships would you meet when engaging in income-generating activities?
- 3. Which areas in the school program do you use students to cut costs?
- 4. Do teachers willingly engage in income-generating activities in school? How do you reward them?
- 5. Can engagement in income-generating activities affect performance either negatively or positively?
- 6. Which problems have come along with Free Secondary Education program?
- 7. How would you ensure that income generated from school activities is used to improve internal efficiency in the schools?
- 8. Suggest means and ways of making the school financially sound?

### APPENDIX III: OBSERVATION SCHEDULE

The Observation Schedule was used to verify the	e existence of school facilities and extent of
usage.	
Physical resources	
Classrooms ( ) Dormitories ( ) Dining Hall ( )	School Farm ( ) Chairs ( ) School bus ( )
Computer Lab ( ) Home Science Room ( )	
Human resource	Number
Technical/applied teachers	
Caterers/cateresses	
Drivers	
Workshop assistants	
Farm managers	

### APPENDIX IV: DOCUMENT ANALYSIS GUIDE

TYPE OF DOCUMENT	AVAILABLE	NOT AVAILABLE
Fee registers		
Class registers		
Cash book		
Stores ledger		
Farm records		
Work tickets book		
Local purchase order		
D 1		
Payments voucher		

### **Appendix V: Research Permit**

