

**ROLE OF COST SAVING MEASURES IN INTERNAL EFFICIENCY OF
PUBLIC SECONDARY SCHOOLS IN GATUNDU NORTH SUB COUNTY,
KIAMBU COUNTY, KENYA**

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DECLARATION

I declare that this research project is my original work and has not been presented in any other university/institution for consideration of any certification. This research project report has been complemented by referenced sources duly acknowledged. Where text and data have been borrowed from other sources including the internet, these are specifically accredited and references cited using the current APA system and in accordance with anti-plagiarism regulations.

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DEDICATION

I dedicate this research work to my late father, Mr. Simon Kinuthia Kabugi who taught me the benefits of education and meaning of hard work from an early age. To my mother, Mrs. Fraciah Wanjiru Kinuthia for her support, encouragement and prayers that led to this accomplishment.

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ABBREVIATIONS AND ACRONYMS

B.O.M	-	Board of Management
C.B.E	-	Curriculum Based Establishment
ECDE	-	Early Childhood Development Education
EFA	-	Education For All
ESP	-	Economic Stimulus Programme
FDSE	-	Free Day Secondary Education
GOK	-	Government of Kenya
IPAR	-	Institute of Policy Analysis and Research
KEMI	-	Kenya Education Management Institute
KESSP	-	Kenya Education Sector Support Programme
MDG	-	Millennium Development Goals
MOE	-	Ministry of Education
MOEST	-	Ministry of Education Science and Technology
NARC	-	National Rainbow Coalition
NGOs	-	Non-Governmental Organization
ROK	-	Republic of Kenya
SCQASO	-	Sub County Quality Assurance and Standards Officer
SCDOE	-	Sub County Director of Education
SE	-	Secondary Education
SFAI	-	School Fee Abolition Initiative
SSED	-	Subsidized Secondary Education
SSA	-	Sub-Saharan Africa
SPSS	-	Statistical package for social sciences

- TSC** - Teachers Service Commission
- UNICEF** - United Nations Children's Fund
- UNESCO** - United Nations Educational, Scientific and Cultural
Organization
- UNDP** - United Nations Development Programme

ABSTRACT

This study aimed at investigating the role of cost saving measures in internal efficiency of public secondary schools in Gatundu North Sub County, Kiambu County. The specific objectives of the study were: To investigate the extent to which Curriculum Based Establishment is implemented, to establish the extent to which tendering and budget preparation policies are implemented, to investigate the extent to which teaching and learning time is effectively utilized and to establish the influence of implementation of cost saving measures on internal efficiency of public secondary schools in Gatundu North sub county. The Ministry of Education may benefit from the study findings by getting information on the role of cost saving in internal efficiency in public secondary schools. School administrators may use the results to help them make sound decisions on investments and efficient utilization of educational resources. The study employed descriptive research design. The target population was 29 principals in public secondary schools in Gatundu North Sub County, Sub County Director of Education and Sub County Quality Assurance and Standards Officer. All the 29 Principals, one Sub County Director of Education, one Sub County Quality and Assurance Standards Officer were selected using purposive sampling. Data from the Principals was collected using questionnaires while interview schedules were used to collect data from SCDOE and SCQASO. Piloting of the research instruments was done in three schools to clear any ambiguity in them. Data collected using questionnaires were coded and entered into a computer program (SPSS) and then analysis done. The results were presented using frequencies, means and percentages. Qualitative data were thematically organized based on the study objectives. The findings revealed that in most schools teaching workload was not allocated according to Curriculum Based Establishment. Most of the teachers in the sampled schools had less than 27 lessons per week. Further, the findings indicated that majority of the teachers were employed by the TSC. It was also established that annual school budget was prepared but implementation of the budget was a challenge due to delayed funds, nonpayment of school fees and increased debts. The schools had operational tendering committees which met regularly to tender for goods and services. On teaching workload and time management, it was found that they significantly impacted on academic performance of students. Delay in release of funds and limited financial resources were found to be major stumbling blocks in the implementation of cost saving measures geared towards enhancing internal efficiency. Based on the study findings, the study makes the following recommendations; parents should be sensitized to pay school fees in good time or negotiate with principals on school fees payment modalities to avoid students being sent home for fees. School principals should seek alternative ways such as phasing out school fees payment and looking for sponsors and bursaries for needy students instead of sending them home. The MOE should release the FSE money in good time to schools to ensure smooth running of educational programmes.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

This chapter focuses the background to the study, statement of the problem, purpose of the study, objectives, research questions, significance, limitations and delimitations of the study, assumptions of the study, theoretical and conceptual framework and operational definition of terms.

1.2 Background to the Study

Education is an agent for economic, social and political development, hence takes an increasingly high share of national budgets across the world. When Kenya attained independence in the year 1963, the private sector, households and the government collectively put a lot of effort to enhance education opportunities in the republic. The rapid expansion and development of education in Kenya was occasioned by the Sessional paper no 10 (1965) which underscored the importance of education in eradicating poverty, diseases and ignorance. The paper was based on two premises; i) that every child in Kenya regardless of socio economic background, gender, ethnicity or religion has a right to quality education. ii) The government of Kenya has the obligation to empower all citizens in social and economic welfare (Republic of Kenya, 2005).

The experiences in USA and in many other countries of the world suggest that providing added resources to schools do not directly translate to improved quality. This is evidenced by the fact that in US between 1960 and 2000, learner teacher ratio fell nearly 40 percent hence expenditure has increased and the former proved

be an unproductive policy (Hanushek, 2003). This implies that in US, small schools incur high costs of operation. Also, in United Kingdom (UK), primary school expenditure diminished sharply as the size of the school increased up to the number of 80 pupils (Nafukhol, 1991).

In India, large scale study on student achievement showed that increasing classroom size is effective as test scores per rupee for varied inputs is relative to teacher salary (Pritchett & Filmer, 1997). World Bank (1993) observed that unit costs of secondary education in the Caribbean tended to be twice those of primary education, while in Jamaica, secondary schools unit costs were three times greater than those of all other levels. This has negatively impacted on the purchase of education in this region and rendered many institutions in poor physical state. The total shift of education costs to parents has been the major reason behind this. Increasing the school fees to meet the education cost is an easy way used by school administrators who do not want to take the challenge of using the available resources to generate income (IPAR, 2007). In light of the implication of such a move, more pragmatic initiatives need to be taken among which is the use of available assets for more economic returns. The available school assets have the potential of generating income if the school administrators are committed to this endeavor.

Lewin and Caillods (2001) reported that participation in primary schools in Malawi was estimated to be 65% and nominal transition to secondary was 10 percent. Enrolment in secondary schools was also low due to low level of involvement and poor performance in primary schools which result to low number of pupils qualifying to join secondary schools. When the survey was carried out in Malawi,

the rate of drop out and repetition in primary schools was estimated at 18 percent and 15-20% respectively.

The rollout of FPE in public primary schools in Malawi led to increase in financial allocation to secondary schools which was estimated to be seven times more than that of primary education. This led to rapid expansion of secondary education in Malawi. The policy and investment commitment led to an increase in transition rate from primary to secondary by 30 percent. To ensure quality the government built more schools, encouraged privatization of secondary education, curriculum review, in service training of teachers and rationalization. This relatively lowered the cost of secondary education in Malawi (Lewin & Caillods, 2001).

The Addis Ababa conference held in May 1961 to discuss the development of education in Africa pointed out that cost of education in Africa was three times that of Europe and North America. The conference, therefore suggested reduction in the cost of education by elaborate standardization and using locally made and cheaper materials (Masimbwa, 2010). According to Psachoropolous (1995), there is need to examine the utilization of resources to identify possible cost reductions, and link research on costs with research on effectiveness. Most nations are not able to finance the rising cost of education hence sought alternative ways of funding education including cost-sharing and grants. This would make education be affordable to all.

The introduction of FPE in Kenya in the year 2003 led to rapid increase in enrolment in public primary schools and subsequently exerting pressure on the available resources in secondary schools (KESSP, 2008). After the introduction of FPE, the government made efforts to enhance the capacity of secondary schools to

accommodate the increased number of students. The government's commitment was demonstrated through increased funding to secondary bursary kitty from 11.5 million US dollars in 2003-2004 to 13.8 million US dollars in 2004-2005(GOK, 2006). In order to expand access and improve retention to secondary education, the Government waived fees in all public day secondary schools at the start of January 2008 (GOK, 2008). In the Sessional Paper No 1 of 2005 the national government committed herself to aid in the expansion of day secondary schools as a means to improve and reduce cost of financing education by parents. The government introduced a subsidy of kshs 10,265 per student every year to cover tuition and operational costs. Due to economic dynamics, the government has been increasing the subsidy in an effort to meet basic education needs. By the beginning of the year 2019, the subsidy was sh. 22, 244.

Despite the effort that has been made by the national government, NGOs and households to enhance access to educational opportunities and improve the quality of learning outcomes in secondary schools, the sector is still grappling with issues of poor quality learning outcomes, significant cases of school dropout and unsustainable educational programs. For instance, World Bank Report (2018) on the status of education in developing countries warned of a learning crisis in Kenya. The report indicated that about 40% of 19 and 20 year olds score below average in literacy skills despite completing secondary education. It was estimated that 52% of Kenyan children who have gone through education system reach their potential. Even though Kenya was noted as one of the countries that have made substantial progress, the statistics present a worrying trend that raises serious concerns about

internal efficiency in secondary schools. School dropout rates in both primary and secondary schools have also been noted to be significantly high. KNBS (2018) showed that out of 1,231,300 children who were enrolled for standard one in the year 2006, 839, 300 children representing 68% sat the KCPE in 2013. In secondary schools, 521000 students were admitted into secondary schools in the year 2011 but out of these, 483, 630 (92%) sat the KCSE of the year 2014.

In Gatundu North Sub County, most secondary schools are performing dismally with regard to internal efficiency. This is evidenced by consistent below average academic performance in national examinations and considerably high dropout rate as indicated in Table 1.1.

Table 1.1: KCSE results and drop rate for Gatundu North Sub County

Grade	Entry	A	A-	B+	B-	C+	C	C-	D+	MG	Dropout rate
									and below		
2016	2363	0	2	24	63	88	132	187	1821	3.391D	11%
2017	2402	0	0	21	65	84	85	164	1993	3.289D	14%
2018	2488	0	7	22	60	91	131	182	1752	3.48D	13%
Total	7253	0	9	67	188	263	348	533	5566	3.387	12.67%

Source: Sub County Education Office (2019)

As indicated in Table 1.1, from the year 2016 to 2018 majority of the students scored below average grades in KCSE. The positively skewed academic performance indicates that most of the secondary schools in the sub county are yet to achieve internal efficiency. The large number of below average grades scored by students and high dropout rate shows that cost saving measures have not been

effectively implemented (Oluyomi, 2012) and most of the educational programmes in the affected schools are not sustainable (Abdulkareem, Fasasi, & Akinnubi, 2011).

There are many factors that have been found to affect internal efficiency in secondary schools. Gupta (2001) observed that internal efficiency is associated with resource allocation and utilization. The researcher noted that schools that had sufficient resources and prioritized effective utilization, achieved educational objectives. The wastage rate was observed to be low and the academic performance of the students met the set standards. Wastage rate may occur when students drop out of school before completing the course. An internally efficient school system is the one that ensures all the enrolled students graduate without wasting any (Olubor 2004). Therefore, internal efficiency is the relationship between inputs and outputs. The inputs include teachers, financial resources and physical facilities that transform the students as guided by educational objectives while the out puts include academic grades, completion rate and retention rate. Much of past research work on internal efficiency in secondary schools has focused on the influence of resource allocation and utilization on internal efficiency. A few studies have investigated cost saving measures as determinants of internal efficiency in secondary schools.

Nyangia and Orodho (2014) studied cost saving measures in public secondary schools in Kisumu County. The research was carried out among teachers, school principals, PTA members and Ministry of Education officials. The results showed that despite the introduction of FDSE, the cost of secondary education was beyond reach for children from poor families. Some of the cost saving measures that were

employed include; outsourcing transport services, sharing facilities, income generating activities and assigning support staff extra work. It was observed that despite the innovative cost saving strategies that were employed, the cost of education for students from poor families was not significantly reduced.

A study conducted in Kisii County by Getange, Onkeo and Orodho (2014) revealed that financial resources in day secondary schools were not enough to enhance the quality of education. The schools faced financial challenges, a situation which was worsened by delay in the disbursement of FDSE funds. The foregoing studies did not explicitly explore cost saving measures as determinants of internal efficiency in secondary schools.

Despite the research efforts that have been made to identify cost saving measures that can be used to reduce the cost of education, little is known on cost saving measures as determinants of internal efficiency. Furthermore, the reliability and the external validity of the findings are questionable since most secondary schools in the country are struggling with financial challenges when there is an abundance of literature on measures that can be taken to avert the situation. In Gatundu North Sub County, there was no study that has been carried out to investigate cost saving measures as determinants of internal efficiency in public secondary schools. This study was carried out with the aim of bridging the knowledge gap in an effort to provide empirical evidence that may be used to address the dwindling quality of education in the sub county.

1.3 Statement of the Problem

The rising cost of secondary education calls for intervention measures to be taken to reduce wastage and inefficiency in schools. The cost of education has become too high for most parents to afford considering the high cost of living and meagre pay.

Despite the efforts that have been made by the government to enhance access to secondary education, children who come from poor backgrounds are yet to fully benefit from the promises of secondary education as evidenced by absenteeism, poor performance and school drop outs. Statistics from the Gatundu North Sub county Education Office indicate that the number of students who complete Secondary Education in Gatundu North Sub County is significantly below the number of students enrolled.

It is estimated that about 11% of the students drop out of secondary schools in a four year course (KNBS, 2018). This clearly indicates that even with the subsidized form of secondary education, the objective of increasing the retention and completion rates at this level has not been achieved. To address the gap, this study examined the cost – saving measures employed by school managers to make education affordable and the influence on internal efficiency with references to students flow in terms of completion rates, reduced dropout rates and improved academic performance.

1.4 Purpose of the Study

The aim of this study was to examine cost saving measures as determinants of internal efficiency in public secondary schools in Gatundu North Sub County.

1.5 Objectives of the Study

The study was guided by the following specific objectives;

- i. To establish the extent to which Curriculum Based Establishment is implemented in public secondary schools in Gatundu North sub-county.
- ii. To investigate the extent to which tendering and budget preparation policies are implemented in public secondary schools in Gatundu North sub-county.
- iii. To examine the extent to which teaching and learning time is effectively utilized in public secondary schools in Gatundu North sub-county.
- iv. To investigate the influence of implementation of cost saving measures on academic performance of public secondary schools in Gatundu North.

1.6 Research Questions

The study sought to answer the following questions;

- i. To what extent is Curriculum Based Establishment is implemented in public secondary schools in Gatundu North sub-county?
- ii. To what extent are tendering and budget preparation policies implemented in public secondary schools in Gatundu North sub-county?
- iii. To what extent is teaching and learning time effectively utilized in public secondary schools in Gatundu North sub-county?
- iv. What is the influence of implementation of cost saving measures on academic performance of public secondary schools in Gatundu North?

1.7 Significance of the Study

The findings on role cost saving measures in internal efficiency of public secondary schools may be of benefit to the Ministry of Education, school administration in the following ways;

- a. The study findings may assist the Ministry of Education in its policy formulation on cost-saving measures in education.
- b. The study results may offer practical knowledge on cost-saving measures in public secondary schools and the influence such measures have on internal efficiency in public secondary schools. The information may help secondary school administrators and managers in making sound decisions on investments and efficient resource utilization.
- c. The study recommendations may offer effective cost saving measures that can be put in place to reduce cost per student and add to the body of knowledge on the role of cost-saving measures in internal efficiency of public Secondary Schools.

1.8 Limitations of the Study

The respondents might not have been truthful in their responses and this might have influenced the results negatively. But the researcher explained in details to the respondents the purpose of the study and assured them of the confidentiality of the information they would provide. The study was carried out in public secondary schools in Gatundu North Sub County and therefore the generalization of the findings should only be done to schools outside the sub county with similar characteristics.

1.9 Delimitations of the Study

- i. The study was delimited to public Secondary Schools in Gatundu North and private Secondary Schools were left out because the problems of absenteeism, drop out and below average academic performance were more pronounced in public schools.
- ii. There are many other factors that influence internal efficiency in public Secondary Schools but this study focused on cost-saving measures as determinants of internal efficiency. This is because there is limited literature in the area.

1.10 Assumptions of the Study

- i. All the participants were truthful in answering the questions and their opinions were a true reflection of Gatundu North Sub County public Secondary Schools.
- ii. Public Secondary Schools in Gatundu North Sub County had the capacity to employ Cost-Saving measures.
- iii. All principals of the sampled schools for the study were aware of the efficacy of Cost-Saving measures in improving internal efficiency.
- iv. There was influence of Cost-Saving measures on internal efficiency.

1.11 Theoretical Framework

The study was guided by Cost Effectiveness Analysis Model developed by Levin (1995). The theorist defined cost effectiveness as systematic decision making that puts into consideration the cost and the outcomes that give maximum benefit. This model is conceptualized as a tool for decision making that is designed to establish

the most efficient means of achieving educational objectives and goals. According to the theorist, the alternatives used to improve the general school achievement cannot be easily quantified in monetary terms. When comparing educational achievement, the alternatives with similar goals should be grouped together in order to evaluate their cost effectiveness.

The purpose of analyzing cost-effectiveness in education is to ascertain which programs or combination of programs can lead to the realization of educational goals at the lowest cost. The underlying assumption is that different options are associated with different expenses and diverse educational results. By selecting alternatives that cost less to achieve a certain goal, a lot of resources can be effectively utilized. The resources that can be saved can be utilized to expand and enhance other educational programs.

Informed by this model, Hanushek (1986) established that there has been contradicting findings on the relationship between school resources and student's performance. The researcher asserts that availability of resources in schools is not sufficient to guarantee desirable learning outcomes. What is most important is how the financial resources are utilized and not how much of the resources are spent. The measures taken to enhance learning outcomes without proper evaluation of cost effectiveness are inadequate and the value of the costs is insignificant unless they are based on educational outcomes which can be realized through set objectives. This validates the importance of allocating resources to educational programs no matter the scarcity.

The theory was relevant to the study as adopting cost saving measures in schools will make education more affordable hence give an opportunity for more students to complete secondary education. Cost saving measures will reduce fees, improve quality, reduce dropouts, absenteeism, and improve completion rates, thereby improving internal effectiveness in secondary schools. By making sound decisions on investments and proper resource utilization, schools can greatly improve internal efficiency in terms of higher rates of students flow and completion rates, low drop outs, increased teacher-pupil contact hours and maximum utilization of teachers. This made the theory relevant to the study which was concerned about cost-saving measures as determinants of internal efficiency in public secondary schools.

1.12 Conceptual Framework

The study was grounded on the cost-effectiveness analysis model. Costs do affect internal efficiency of the education system in the school. A conceptual framework is a model that represents the relationship between independent variables and dependent variables (Orodho, 2009). The scarce educational resources can be expanded through cost-saving measures to provide education to a greater number of populations. If individuals who come from disadvantaged backgrounds are deprived of an opportunity to access educational opportunities due to inhibitive costs or any other factor then they miss out on the benefits of education. In this study, the cost saving measures (adequacy of available funds, teacher utilization, financial management practices lead to internal efficiency. The aim of the study was to investigate the role of cost-saving measures in internal efficiency of secondary schools. The conceptual model that guided the study is shown in Figure 1.1.

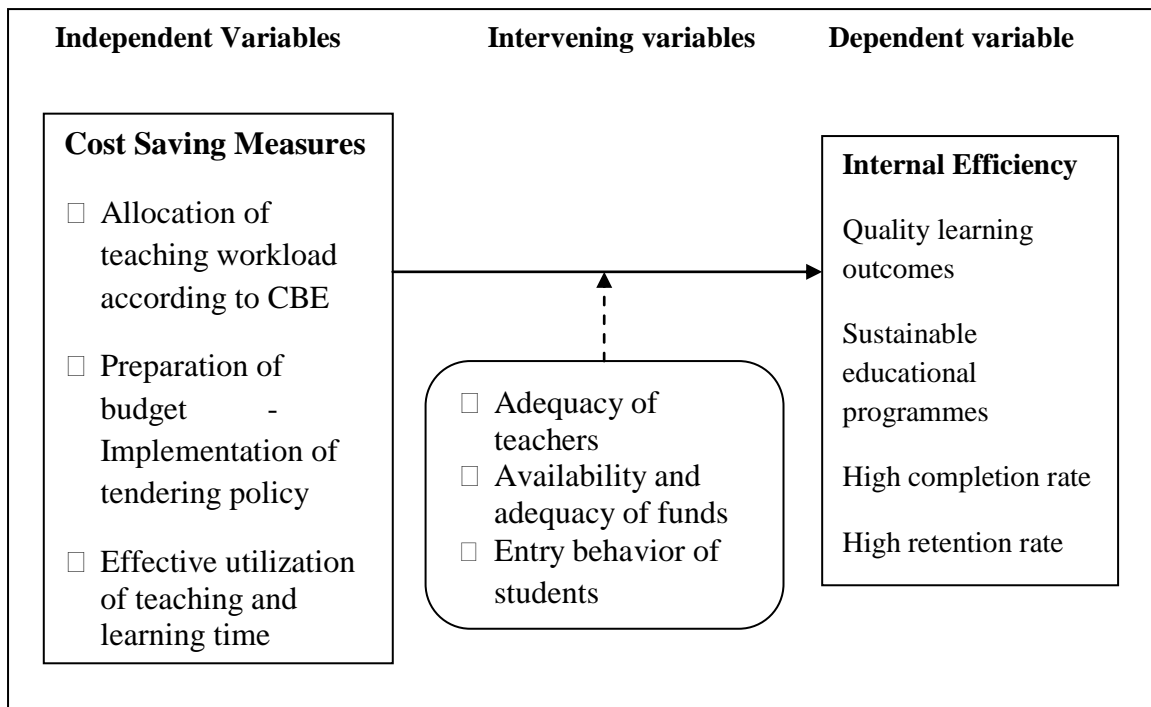


Figure 1.1: Conceptual representation of cost saving measures in enhancing internal efficiency

From the conceptual framework presented in Figure 1.1, the independent variable was cost saving measures. This variable was measured using allocation of teaching workload according to Curriculum Based Establishment, preparation of budget, implementation of tendering policy and effective utilization of teaching and learning time. The dependent variable was internal efficiency which was measured using academic performance, sustainability of educational programs, completion rate and retention rate. It was conceptualized that the cost saving measures determine academic performance of students, sustainability of educational programs, completion and retention rate. The intervening variables were adequacy of teachers, availability and adequacy of funds, entry behavior marks of the students. These variables were not of interest to the researcher but might have affected the association between cost saving measures and internal efficiency.

1.13 Operational Definition of Terms

Cost-Saving measures	Refers to strategies and alternatives that can reduce the cost of education while ensuring maximum benefits of scarce educational resources
Curriculum Based Establishment (CBE)	Refers to the number of recommended number of lessons (27 lessons) per teacher in a week
Internal Efficiency	Appropriate utilization of resources allocated to schools so as to yield maximum outputs as measured by high completion rates, low drop outs and low absenteeism
Quality learning outcomes	Refers to value addition on cognitive skills based on entry performance measured in terms of marks scored
Teacher student contact hours	Refers to the average number of teaching-learning hours per week
Teaching work load	Refers to the average number of lessons allocated to a teacher per week

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter dealt with literature review related to the study. The chapter covers the literature on specific issues related to the study in the following areas; utilization of teachers according to CBE, effect of budget preparation and tendering practices on internal efficiency, utilization of teaching and learning time and influence of cost saving measures on academic performance. The chapter ends with a summary of literature review.

2.2 Utilization of Teachers According to Curriculum Based Establishment

In the education sector, teachers constitute one of the most important resources required in the implementation of the curriculum and therefore their training and the way they are utilized is very critical. The design of teacher training programs is aimed at producing high quality teachers who are central to the provision of quality education. The skewed distribution of teachers in public schools has been associated with unplanned teacher recruitment. There is a huge disparity in teacher distribution which is in favor of urban areas and high potential areas that have amenities. The existing policy of teacher recruitment is geared towards addressing the unequal distribution of teachers in public schools. The balancing of teachers by the TSC has been going on since 2003 with teachers in overstaffed schools being transferred to schools that are understaffed.

The overall goal of TSC is to ensure high standard of teacher professionalism to enhance the quality of education service in all learning institutions. The current policy that is used in teacher recruitment requires that the vacancies are advertised on the basis of need and then the teachers apply to schools of their choice. Despite the abundance of trained teachers in Kenya, most public schools are grappling with shortage of teachers due to limited financial resources to employ more teachers. The gap of teacher shortage in public schools has continued to widen since the introduction of FPE and FDSE programs. These initiatives have seen enrolment skyrocket to an extent of surpassing the available resources (MOEST, 2012). This hampers internal efficiency in schools. Consequently, areas that are marginalized in terms of availability of resources and amenities continue to face a shortage of teachers. To ensure balance in the distribution of teachers, effective modes of deployment need to be adopted and implemented so that teachers can be appropriately utilized. In the local context, recruitment of teachers is a way that is used readdressing the current problems and should be supported by a clear policy (MOEST, 2005). This study sought to investigate the effectiveness of current mode of teacher deployment in addressing utilization of teachers in Gatundu North Sub County.

Another important aspect of teacher utilization is constant skills development for the teachers. To a large extent, teachers have not been given an opportunity to enhance their skills beyond the basic teacher through in-service training. Currently, there is an urgent need for the development of an effective and comprehensive in-service teacher training program to enhance the skills of teachers in curriculum

implementation (MOEST, 2005). This research aimed at investigating if teachers in the study area undertake in service courses regularly to improve on service delivery.

Mehotra and Buckland (2001) further points out that where learner-teacher ratio is high (45 learners per teacher and more), there is a possibility of enhancing cost effectiveness because it offsets the cost per learner. The researchers argue that when the ratios are reduced, teacher utilization may be very costly and hence unaffordable. Concerning the contact hours teachers have with learners have and performance, Aoki et al. (2002) found that there is a relationship between student's performance and the teaching and learning contact hours. Therefore, to ensure cost efficiency in utilization of teachers for quality learning outcomes, the recommended teaching contact hours should be adhered to. Proper planning of school activities allows proper utilization of the available resources which can increase the contact hours. Mehrota et al. (2001) assert that the procedures that are used in teacher deployment are wanting and this has led to underutilization of teachers in terms of workload, working hours and teacher pupil ratios. This will reduce the cost of schooling and increase demand.

The Republic of Kenya (R.O.K) (2008) recognizes the importance of effective and efficient utilization of resources by increasing the average teaching contact hours from 18 hours to 20 hours per week and limiting the minimum number of students per class for optional subjects. The committee on the re-alignment of the education service to the requirements in the Constitution 2010 recommends that on average the teaching load should be raised from 18 hours per week to between 20 and 24 hours per week based on a class ratio of 1.30. UNDP (1991) report indicates that the

prospects for cost saving are significant in Education for All (EFA). The world conference points out that a realistic set of transformations would reduce the current costs of educational system by 25%.

It includes actions to lessen duplication, more effective utilization of public resources, increase in class size, multiple shifts, and some introduction of costs reclamation at the tertiary level. However, it cautions that the quality of education should not be sacrificed. The position is conceded to by Aoki et al (2002) who recommended lower cost design , community based construction, locally recruited teachers, distance education (for example radio education), eliminate school fees and provide textbooks and school supplies free to target groups. However, the studies did not investigate how teacher utilization according to Curriculum Based Establishment influenced internal efficiency of schools. The study sought to find out whether teachers in public secondary schools in Gatundu North Sub County are efficiently utilized as per the curriculum based establishment.

2.3 Implementation of Budget Preparation and Tendering Policies

To provide quality education in all public institutions, the training and skills of those given the responsibility should be in line with the work they are supposed to do. Currently, there are cases of incompetence that have been reported among those who have been given the responsibility in the provision of education services. KEMI has been given the responsibility to equip education managers with the requisite skills, but the institution has not been sufficiently functioning due to the shortage of human and financial resources. As a result, a substantial number of school managers have not been trained on school management, a factor that negatively affects internal

efficiency of schools (MOEST, 2005). Institutional governance organs such as Board of Management and Parents' Association do not have sufficient authority and skills to efficiently manage schools (MOEST, 2005). The study sought to find out if school principals are adequately trained in management to be able to provide effective leadership in the management of resources.

MOEST, (2012) indicates that it is necessary to appoint competent people as school administrators for efficient management of school resources and good performance. The selection and deployment should be guided by the Ministry of Education policies. To ensure that competent administrators are given the responsibility to manage schools, TSC has a policy on the selection criteria which guides the interview process. But this policy has been facing the challenge of interference by the stakeholders who have vested interests.

Inadequate management skills among school administrators have been associated with poor management of school resources and poor performance because some of the administrators are appointed without undergoing the basic training in management (MOEST, 2012). The government has adopted training of institutional administrators on governance to enhance their effectiveness. The study sought to find out if school managers in public secondary schools in Gatundu North sub-county have been adequately trained on management.

The other challenge that is facing the management structures in schools is the mismanagement of resources. The money sent to schools is sometimes not used for the anticipated purpose. Lack of accountability and ineffective monitoring

encourage mismanagement (MOEST, 2012). IPAR (2007) state that effective governance of schools is key to cost reduction in education. They cite that governance is important at reducing cost of secondary school education and for optimal functioning of the schools practices that reduce textbook cost should be opted.

MOEST (2012) indicates that poor management skills among school administrators have contributed to poor performance in schools. Many institutional heads lack the necessary skills to prudently manage resources to achieve educational goals. They lack capacities to supervise and ensure the resources under them can be accounted for. Following the operationalization of FDSE, the national government has initiated a training program for key stakeholders in the management of financial resources, procurement and utilization of other resources that the government provides.

The MOE (2007) suggest that an option of reducing the burden of S.E cost on the Government is to improve on resource utilization by increasing the workload of teachers, expand existing schools, increase in class size, ensure efficient utilization resources, and to enhance management systems in schools to ensure that school incomes are not only prudently used to ensure quality but also acquiring school supplies is done at competitive prices. It also recommends that head teachers and B.O.M members should be trained on prudent financial management with special attention on cost reduction and income generating activities as a strategy to lowering cost. Schools should be authorized to receive fees in terms of goods in order to assist parents in maintaining students in school. The school management is supposed to ensure that the school resources are prudently utilized as provided for in the

financial management law. There was no empirical evidence that such measures have been implemented in public secondary schools in Gatundu North Sub County. This study aimed at evaluating financial management practices as a determinant of internal efficiency in public secondary schools in Gatundu North Sub County.

2.4 Utilization of Teaching and Learning Time

The role of effective time management on learning outcomes is indisputable. According to the World Bank (2008), the worth of education systems primarily depends on how well the learning institutions are managed and how effectively the available resources are utilized. To improve the quality of learning, effective management of time is fundamental. Whether a teacher uses traditional or modern instructional strategies, efficient utilization of school time significantly impacts on academic performance of students. Kegan, Peters and Routledge (2004) noted that economic utilization of time in school encompasses the principals time, staff time and most importantly the student's time. School heads should provide a time management framework to guide the rest of the school towards a achieving a common goal.

A study by Kirk and Jones (2004) established that successful schools have unique qualities regarding utilization of teaching and learning time that help learners to master the content. Graham, Wilson, Gerrick, Fraas and Heimann (2002) states that time is a precious resource that should be utilized efficiently. He noted that quality schools allocate more time to instructional activities to enhance academic performance of students. Olatoun (2012) designed a study to investigate resource mobilization and internal efficiency in secondary schools in Nigeria. The researcher

adopted correlational research design. Resource utilization and internal efficiency scales were used to collect the required information. The results revealed that resource utilization had a positive correlation with internal efficiency.

Locally, Waweru and Nyagosia (2013) carried out a study to explore the utilization of allocated time and academic achievement. The study employed descriptive survey design using a sample of 381 respondents. Data collection was done using questionnaires. The results showed that schools that were performing well put a lot of emphasis on time management. Tenoi (2010) designed a study to find out the efficiency of cost-saving measures in improving academic performance of students. The study randomly sampled 19 principals and one DEO. Questionnaires and interview schedules were utilized in data collection. The results indicated that most of the secondary schools did not have adequate resources to improve KCSE performance. Specifically, the study noted that time was not effectively utilized, a factor that was attributed to poor performance in KCSE in most schools. From the literature reviewed, it was not clear to what extent utilization of time impacted on academic achievement of students, a concern this study addressed to close the gap.

2.5 Cost Saving Measures and Academic Performance

Research on the influence of cost saving measures on academic performance reveals mixed and contradictory findings (Lamb, 2007; World Bank, 2008; Waweru & Orodho, 2014). Schools with a shared vision and common sense of purpose in terms of resource mobilization and utilization register good grades in academics. Effective schools implement cost saving measures such budget preparation, prudent tendering

practices and effective time management to ensure that the available resources yield maximum benefits (Lamb, 2007).

According to Zepeda (2004), asserts that quality schools are characterized by certain features such as desire for success, responsiveness, flexibility, stimulating learning environment and high level of discipline. These features enhance sense of connection and trust among the students, teachers and all others stakeholders that have been directly linked to better academic achievement.

World Bank (2008) notes that regular school attendance and quality teaching in schools improve learning outcomes of students. Primarily the way learning institutions are managed more than anything else influences curriculum delivery. In Kenya, schools heads are require to undergo a management training to equip them with the necessary skills to enhance internal efficiency in schools (Republic of Kenya, 2012).

Ngando (2011) conducted a study to investigate time management practice among teachers and how it impacted on academic performance of students. the study involved 9 principals, 45 teachers and 36 students. The researcher used interview schedules and questionnaires to collect data. The results revealed that most respondents strongly agreed that the first lesson was consumed by prolonged assemblies. It was also revealed that time wastage affected syllabus coverage leading to poor performance in academics. The study noted that most school administrators did not effectively implement time management policies.

In another study, Mobegi, Ondigi and Oburu (2010) asserted that school heads should effectively exercise supervisory responsibilities as quality assurance officers in their schools to improve academic performance. To improve students' academic performance, teachers, students and all other stakeholders must take a proactive role in addressing the poor performance (Ananga, 2010). From the literature reviewed, cost saving measures has an impact on academic achievement of students. However, the findings are inclusive and inconsistent to be generalized to a population in Gatundu North Sub County, hence the need for this study.

2.6 Summary of Literature Review and Gap Identification

This chapter covered review of literature related to cost saving measures in Kenya education sector for maximum utilization of resources on the basis that there are scarce educational resources. A study by Nyaga (2005) reveals that in Japan education is free up to secondary level and it's compulsory for all school age children to attend school which is funded by the government. This leaves a gap in Kenyan situation where parents meet costs of projects, uniform and other opportunity costs. Research conducted by Abagi and Odipo (1997) focused on efficiency in primary education and was done before subsidized secondary education was introduced. The study did not investigate cost saving measures in enhancing internal efficiency. Musoga (2005) conducted a study on cost saving measures in public secondary schools in Kakamega District.

According to ROK (2008), schools should implement cost saving measures such as double shift, day wing in boarding schools, e-learning among others to enhance internal efficiency. There was no evidence that such measures have been

implemented in public secondary schools in Gatundu North Sub County. From the review, few studies have been undertaken to assess how cost saving measures can enhance internal efficiency in secondary schools. None of this has been carried out in Gatundu North sub County hence leaving a gap in literature that this study sought to fill.

Documented literature recommended that the national government should come up with unit cost of education in secondary schools and develop guidelines for school fees. Strategies for financing secondary education are through improved resource utilization to reduce secondary unit cost by enhancing cost efficiency in the provision of education service and promote the efficient utilization of human and physical resources (Lewin, 2003). The study also intended to find out measures that schools can adopt to make education less costly, affordable especially to the poor and thereby improve on internal efficiency. By filling this gap the study would make a contribution to the empirical literature available for use.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the research methodology is discussed. It presents the research design, study locale, target population, sampling techniques and sample size determination, research instruments, pilot study, validity and reliability of the research instruments, data collection techniques data analysis, ethical and logistical considerations.

3.2 Research Design

Descriptive survey research design was employed. This research design involves the collection of data which is then analyzed to describe phenomena (Orodho, 2010). In descriptive survey information is collected from the respondents using questionnaires, interview schedules or both with the aim of establishing the state of affairs related to the problem of study (Mugenda & Mugenda, 1999). According to Borg and Gall (1989), the aim of descriptive survey research is to generate statistical data on educational phenomenon that is of interest to the researcher, policy makers and educators. Furthermore, this design was appropriate because it enabled the researcher to be able to collect data without manipulating the variables with the aim of establishing the influence of cost saving measures on internal efficiency in public secondary schools in Gatundu North Sub County.

3.3 Locale of the Study

The study was carried out in Gatundu North sub county Kiambu County which is about 90km North West of Nairobi. It is an agricultural area with coffee, tea, pineapples and dairy farming as the main economic activities. Educationally it is divided into three educational zones that are Mang'u, Chania, and Githobokoni with a total of 29 public secondary schools.

According to Singleton (1993) the most suitable location of a study is the one that is easily accessible and rich in the information the researcher is looking to address the research problem. Gatundu North Sub County was suitable for this study because it was easily accessible to the researcher. This gave the researcher an opportunity to create rapport with the respondents and conduct in-depth probe on their opinions and state of affairs regarding cost saving measures in the selected secondary schools. The sub county was also selected because it has been consistently performing below average in KCSE examinations and the dropout rate is high compared to other Sub Counties in Kiambu County.

Table 3.1: KCSE results and drop rate for Gatundu North Sub County

Grade	Entry	A	A-	B+	B-	C+	C	C-	D+ and below	MG	Dropout rate
2016	2363	0	2	24	63	88	132	187	1821	3.391D	11%
2017	2402	0	0	21	65	84	85	164	1993	3.289D	14%
2018	2488	0	7	22	60	91	131	182	1752	3.48D	13%
Total	7253	0	9	67	188	263	348	533	5566	3.387	12.67%

Source: Sub County Education Office (2019)

3.4 Target Population

The study targeted all principals in the 29 public secondary schools in Gatundu North sub County. Targeted also were the Sub County Director of Education (SCDOE) and Sub County Quality Assurance and Standards Officer (SCQASO). According to the MOEST (2003) the management of resources of learning institutes is primarily the responsibility of the head of that institution. The SCDOE and SCQASO give guidance and support to the principals with respect to resource management and acts as a Government agent in respect to use of institution's resources. Therefore principals, SCDOE and SCQASO as target respondents were crucial informed specialists in the research.

3.5 Sampling Techniques and Sample Size

The census method was used to collect data because the targeted population was small. A census involves counting of all components in a population. The researcher targeted all the 29 principals in the 29 secondary schools in Gatundu North Sub-County. The target population had thirty one respondents. The SCDOE and SCQASO officers were purposively chosen to be involved in the study since they oversee the implementation of all education policies as stipulated by the MOEST. This information is presented in Table 3.2.

Table 3.2: Target population and sample size

Category of respondents	Target population	Sample size	Percentage
Principals	29	29	100%
Sub County Director of Education	1	1	100%
Sub-County Quality Assurance and Standards Officer	1	1	100%
Total	31	31	100%

3.6 Data Collection Instruments

The researcher used questionnaires and interview schedules to collect data from the respondents.

3.6.1 Questionnaires

The researcher constructed questionnaires to collect information from the principals. Questionnaires were used because they collect a lot of information from the respondents within a limited time. This technique was also considered to be relatively cost effective. The respondents were served with the questionnaires and were left with them for two days to fill the data. The tool contained closed and open ended questions. Open ended items were used to collect in-depth information from the respondents. Space was provided for the respondents, thus gave them freedom to express their feelings or views. The key data collected were on adequacy of available funds, teacher utilization based on curriculum establishment and financial management practices.

3.6.2 Interview Schedules

The researcher carried out interviews with the SCDOE and Sub County Quality Assurance and Standards Officer SCQASO because they give support to the principals with respect to resource management. They gave information on policy issues, intervention to improve internal efficiency and cost saving measures to enhance efficiency in schools. Peil (1995) argues that interviewing yields valid, reliable and satisfactory findings from indefinite sources in society.

3.7 Pilot Study

A pilot study was carried out in three public secondary schools in Gatundu South Sub County; one for boys, one mixed and one girl's boarding to establish the validity and reliability of the instruments. Mugenda and Mugenda (1999) aver that pilot study enables the researcher to identify ambiguous questions, estimate the time required to conduct the study and the challenges likely to be faced. After the pilot study, corrections were done in consultation with the university supervisor.

3.7.1 Validity of the Research Instruments

Validity is the degree to which a research instrument measures what it purports measure (Borg & Gall, 1989). Content validity of the research instruments was ascertained by the university supervisor. The questionnaires and interview schedules were constructed in close consultation with the university supervisors and competent peers in the department of educational planning, Kenyatta University to enhance validity.

3.7.2 Reliability of Research Instruments

According to Mugenda and Mugenda (1999), reliability is the degree to which a research tool gives consistent results when administered to same respondents at different times. It is important that tools used for research are pre-tested as to establish their potential in measurement (Wiersma, 1985). Split-half method of assessing reliability was used. Data from filled questionnaires of the pilot study were divided into two different halves and then a correlation coefficient was calculated with the aid of SPSS computer program.

Table 3.3: Reliability Coefficients

Cronbach's Alpha	Part 1	Value	.735
		N of Items	12 ^a
	Part 2	Value	.683
		N of Items	14 ^b
	Total N of Items	12	
Correlation Between Forms			.669
Spearman-Brown Coefficient	Equal Length		.802
Guttman Split-Half Coefficient			.802

The researcher used split-half technique to establish the reliability of the research instruments. As indicated in Table 3.3, all the reliability coefficients obtained were within the acceptable range. A reliability co-efficient of 0.7 or above is acceptable as recommended by Mugenda and Mugenda (1999).

3.8 Data Collection Procedure

The researcher was given an introductory letter by the graduate school, KU and then applied for a research permit from NACOSTI. When the research permit was obtained, authorization letter to carry out the study in the sub-county was obtained from the sub county education office at Kamwangi. The researcher then booked appointments with the principals of the selected schools. The researcher visited the sampled schools to create rapport and agree with the principals the day and time for data collection. Data were collected using questionnaires and document analysis on the agreed day.

3.9 Data Analysis

3.9.1 Quantitative Data

Quantitative data were coded and then analyzed by the aid of SPSS computer program. The results were reported using frequency distribution, means and

percentages. Presentation was done using tables and pie charts from which generalization and conclusions were made.

3.9.2 Qualitative Data

The qualitative data collected were analyzed according to themes based on research questions and objectives. This was appropriate because it was not possible to compute qualitative data since it was in the form of narratives. Therefore, only themes of the major concepts were used in analysis.

3.10 Ethical Considerations

To ensure that ethical guidelines were not breached during the research process, the following issues were observed;

- i. The identity of the respondents remained confidential. They were not required to write their names or that of the school anywhere.
- ii. The respondents were given a consent form to read and make a decision to participate or not to participate.
- iii. Participation in the study was voluntary.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the findings, interpretation and discussion of the results on cost saving measures as determinants of internal efficiency in secondary schools in Gatundu North. The chapter begins with the presentation of demographic information of the respondents using some selected descriptive statistics. The other sections are presented according to the study objectives as follows;

- i. To establish the extent to which CBE policy is implemented in public secondary schools in Gatundu North sub-county.
- ii. To investigate extent to which tendering and budget preparation policies are implemented in public secondary schools in Gatundu North sub-county.
- iii. To examine the extent to which teaching and learning time is effectively utilized in public secondary schools in Gatundu North sub-county.
- iv. To investigate the influence of implementation of cost saving measures on academic performance of public secondary schools in Gatundu North sub-county.

4.2 Demographic Data and Background Information

The background data included; gender, academic qualifications, experience as a principal, status of the school, number of streams, average number of students per class, enrolment for the last five years, the number of students who completed form

four in the last five years and the number of students who dropped out of school in the last five years.

4.2.1 Return Rate of the Research Instruments

The sample size of this study was 31 respondents as shown in Table 3.1. The return rate was 100% because the researcher delivered the questionnaires in person for data collection. Furthermore, unclear items were clarified to ensure no question was unanswered and appropriate response was provided.

4.2.2 Demographic Data of the Respondents

Table 4.1: Gender, academic qualifications and work experience of the respondents

Gender	Male	Female		N
	14 (45.2)	17 (54.8)		31
Academic qualification	BED	MED	Diploma	
	23 (74.2)	8 (25.8)	0 (00)	31
Other qualifications	Diploma in Education	CPA	NONE	
	11 (35.5)	1 (3.2)	19 (61.3)	31
Experience	0-5 years	6-10 years	10 & above	
	4(12.9)	16(51.6)	11 (35.5)	31

Note. ()- percentage, N -Sample size

The demographic information of the respondents sought were; gender, academic qualifications, other qualifications and experience as shown in Table 4.1. From Table 4.1, 14 (45.2%) respondents were males and 17 respondents representing 54.8% were females. The results indicate that the number of females sampled was

slightly higher than that of males. The study also sought to find out the academic qualification of the respondents which has been found to have a significant positive relationship with internal efficiency. The findings revealed that majority of the principals, 23 representing 74.2% had a bachelor's degree in education while 8 (25.8%) had Master's Degree. Regarding other qualifications, 11(35.5%) respondents had a diploma in education management while 1 (3.2%) had CPA II.

From the findings, the level of education of the respondents was sufficient to provide them with necessary skills in cost saving measures to enhance internal efficiency in schools. However, majority of the respondents, 19 (61.3%) did not have any professional training on management. Professional training on management has been found to enhance internal efficiency in the management of resources in secondary schools (MOEST, 2012). In view of this assertion, majority of the sampled principals were not adequately trained on resource management to enhance internal efficiency. The inadequacy in resource management skills can be inferred from the dismal academic performance and behavior problems among students according to the statistics in the sub-county education office.

The principals', SCDOE's and SCQASO's experience as shown in Table 4.1 indicate that 4 respondents representing 12.9% had 0-5 years' experience, 16 (51.6%) had 6-10 years' experience and 11 (35.5%) had 10 and above years' experience. According to the results, majority of the administrators were fairly experienced to institute cost saving measures in running of schools to enhance internal efficiency.

Table 4.2: Type, status, category and number of streams in the sampled schools

School type	School status	School Category	Number of streams				
Boys	2(6.9)	Boarding	8(27.6)	National	0 (00)	Single	12(41.4)
						stream	
Girls	8(27.6)	Day and	2(6.9)	County	3(10.3)	Double	13(44.8)
		Boarding				stream	
Mixed	19(65.5)	Day	19(65.5)	Sub-	26(89.7)	More	4(13.8)
				county		than	
						two	
Total	29 (100)		29 (100)		29(100)		29(100)
(N)							

Note. () - Percentage

Table 4.2 shows that majority of the sampled schools (19) representing 65.5% were mixed schools, 8(27.6%) were boys' schools and 2 (6.9%) were girls' schools. Concerning the status of the schools, 19(65.5%) were day schools, 2(6.9%) were day and boarding mixed schools while 8 (27.6%) were boarding schools. The researcher also sought to establish the number of streams in the schools sampled because it is used to measure internal efficiency when compared to the number of students in the school. The results revealed that 41.4% of the sampled schools were single streamed, 44.8 percent were double streamed and 13.8 percent had more than two streams.

Table 4.3: Average number of students per class

Range	Frequency	Percent
20-29	7	24.1
30-39	5	17.2
40-49	10	34.5
50-59	7	24.1
Total	29	100.0

From Table 4.3, 7 (24.1%) schools had an average of 20-29 students per class, 5(17.2%) schools had an average of 30-39 students, 10(34.5%) percent had an average of 40-49 students and 7 (24.1%) schools involved in the study had an average of 50-59 students per class. The results indicate that nearly half of the sampled schools had less than the recommended number of students per class, enrolment notwithstanding. Enrolment of less than the recommended number of students per class (45 students) increases the cost of education which impacts negatively on school's internal efficiency (Musoga, 2005).

On the other hand, too many students in a class exert pressure on the available resources resulting to poor performance. The quantitative findings were supported by qualitative data obtained from the SCDOE and SCQASO who stated that there was no policy framework to guide enrolment to ensure that all the schools had the recommended number of students per class. The respondents said that the ministry deals with placement of students in form one based on merit and capacity but has no control in balancing enrolment thereafter. The findings indicate that in the event of

unfavorable circumstances, the affected schools may lose students which affects both the former and destination schools as a result of under enrolment and over enrolment. This affects internal efficiency of schools. The term quality of education is associated with student's level of academic achievement. If the students' achievement is low, the school is termed to be of low quality and therefore inefficient (Ndaruhutse, 2005).

4.3 Teacher Utilization According to Curriculum Based Establishment

4.3.1 Total Number of Teachers, Employment Terms and Qualification

To establish teacher utilization according to curriculum based establishment, the principals were asked to indicate the total number of teachers, employment terms and whether they were trained or not. The findings are shown in Figure 4.1.

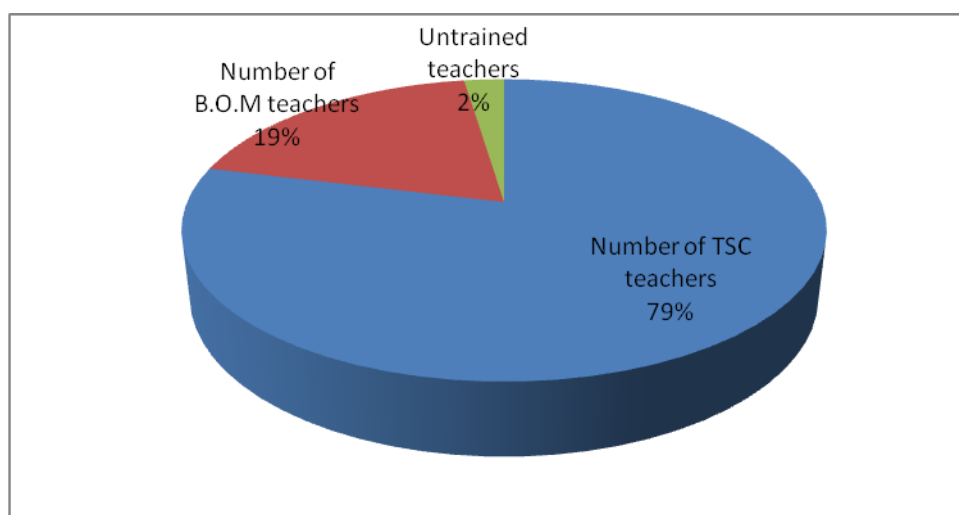


Figure 4.1: Number of T.S.C, B.O.M and untrained teachers

The findings indicated that 79% of the teachers in the sampled schools were employed by TSC. A total of 21% were employed by B.O.M to address teacher shortage. Employment of teachers on B.O.M terms increased schools' expenses on

salaries and allowances. The measure taken was not cost effective because as indicated in Table 4.4 a great percentage of teachers were underutilized since they had less than 27 lessons. The SCDOE and SCQASO reported that the teachers were not enough as per the CBE. The findings were consistent with the results of Mehrota et al. (2001) who asserted that the procedures that are used in teacher deployment are wanting and this has led to underutilization of teachers in terms of workload, working hours and teacher pupil ratios.

4.3.2 Average Teaching Load per Week for Different Subject Categories

To establish the cost effectiveness of teacher utilization based on CBE, the respondents were requested to indicate the average teaching load per week for different subject categories and the results are presented in Table 4.4.

Table 4.4: Teaching load per week for different subject categories

WL	Languages		Maths		Sciences		Humanities		Technical & applied	
	<i>F</i>	%	<i>F</i>	%	<i>F</i>	%	<i>F</i>	%	<i>F</i>	%
Below 20	0	0	0	0	1	3.4	8	27.6	6	20.7
21-24	10	34.5	9	31.1	11	37.9	9	31.1	13	44.8
25-29	17	58.6	19	65.5	15	51.7	8	27.6	9	31.1
30&above	2	6.9	1	3.4	2	6.9	4	13.7	1	3.4
Total	29	100	29	100	29	100	29	100	29	100

Note. WL- Work Load, *f*-frequency & % - percentage

The study established that in majority of the schools, the teaching load per week for all subject categories was in the range of 25-29. On average this was in tandem with the recommended number of 27 lessons per week.

However, as shown in Table 4.4 the principals indicated that a substantial percentage of teachers in all the subject categories had a teaching load below 24 lessons and above 29 lessons. The findings indicate that in all the schools that were involved in the study did not effectively implement the cost effective measure of teacher utilization as recommended by MOE (2007). The SCDOE and SCQASO also stated that most schools in the sub county had a shortage of teachers employed by TSC. During the interview, the SCDOE said that

“Most secondary schools are having a shortage of teachers but the Ministry of Education through the TSC is addressing it by the yearly teacher recruitment exercises. The recruitment is done on need basis and TSC is mandated to advertise and fill the positions.”

R.O.K (2008) recognizes that the importance of effective and efficient utilization of the available resources to deliver education services in a cost effective way for optimum learning outcomes. This includes increasing average contact hours and optimum teaching workload. But this was not the case in most of the secondary schools that were involved in the study. As indicated in Table 4.4, the teaching workload in most schools was below the set standard. Consequently, to address the perceived teacher shortage the principals employed teachers on B.O.M terms as indicated in Figure 4.1. This measure increased the school's expenditure at the expense of other educational programs, which is a pointer to internal inefficiency.

Employment of teachers on BOM terms puts strain on the already meagre financial resources. This negatively affects the implementation of other educational programs resulting to poor quality learning outcomes, retention rate and completion rate. The problem of below average academic performance and high dropout rates in most secondary schools may be attributed to internal inefficiency in the schools as indicated by the research findings.

4.4 Budget Preparation and Tendering Committee

4.4.1 Sources of Finances

The respondents were requested to state the sources of finances in their schools.

Table 4.5: Sources of finances

	Frequency	Percent
Government, fees, bursaries	23	79.3%
All of the above(government, fees, bursaries & grants)	6	20.7%
Total	29	100%

Majority of the principals (79.3%) indicated that they obtained their finances from the government, school fees and bursaries. The rest (20.7%) stated their funding to be coming from government, fees, bursaries and grants. From the results, it is clear majority of the schools did not diversify their sources of funding to withstand unforeseen financial uncertainties for example lack of school fees payment and delay in disbursement of FDSE from the government. Qualitative findings corroborated the results of quantitative data. The SCDOE and SCQASO indicated

that most schools in the sub county largely depended on the government for funding. The SCDOE said, “*When there is delayed disbursement of FSE money, operations in many schools almost come to a standstill. The affected schools delay payment of salaries, suppliers and cancellation of activities that are directly funded by the schools.*” The measures taken by school administration in the event of delayed disbursement of funds are counterproductive because they demoralize the employees and affect the quality of goods delivered. This negatively affects internal efficiency of the schools. UNDP (1991) report indicates that the prospects of cost saving and diversifying the sources of income are significant in Education For All (EFA). The report indicated that schools should take action to lessen overdependence on government funding, increase class size and use multiple shifts. However, caution should be taken to ensure that the quality of education is not sacrificed. These results point to the common cases of absenteeism, drop out and low academic performance among students in public secondary schools in Gatundu North Sub County.

4.4.2 Budget Preparation

In matters of financial management, prudent utilization of financial resources requires preparation of a budget. As such, the study sought to establish if the sampled schools prepared a budget.

Table 4.6 : Preparation of school yearly budget

	Frequency	Percent
Yes	29	100 %
No	0	00

All the principals sampled stated that they prepared annual school budget. MOEST (2015) recommends that principals and B.O.M members should be trained on prudent financial management with special attention on cost reduction in the running of schools to enhance internal efficiency. The findings that all the principals of the schools that were involved in the study prepared yearly budget was a good indicator of the processes that result in internal efficiency of schools. MOE (2007) notes that budget preparation ensure that school finances are not only prudently used to ensure quality but also acquiring school supplies at competitive prices.

Table 4.7: Challenges in implementing the budget

	Frequency	Percent
Delayed funds, non-payment of fees and increase in school debts	12	41.4 %
Delayed funds and increase in school debts	7	24.1%
All of the above	10	34.5 %
Total	29	100%

The results indicate that 41.4% of the principals faced challenges of delayed funds from the government, nonpayment of fees and increase in school debts, 24.1% faced challenges of delayed funds and increase in school debts while 34.5% faced all the highlighted challenges in the implementation of the school budget. From the results it is apparent that school managers are struggling with financial challenges which affect implementation of internal efficiency measures such as support for needy students to remain in school. Data obtained from interviews with SCDOE and SCQASO also indicated that the schools were struggling with inadequate funds to

run educational programs. It was also indicated that some schools were not able to build more classrooms and other physical facilities to accommodate the increasing number of students.

It was important to establish the measures the respondents put in place to deal with the challenges to enhance internal efficiency. The findings are presented in Table 4.8

Table 4.8: Measures of dealing with financial challenges

	Frequency	Percent
Send students home for fees and delay buying teaching and learning materials	1	3.4
Send students home for fees, Negotiate with suppliers	16	55.2
All of the above	12	41.4
Total	29	100

Table 4.8 shows that 3.4% of the principals sent students home for school fees and delayed buying teaching and learning materials, 55.2% indicated that they sent students home for school fees and negotiated with suppliers while 41.4% indicated that they adopted all the above measures to deal with financial challenges. Majority of the principals employed methods that impacted negatively on internal efficiency. For example, sending students home affect quality of learning outcomes due to absenteeism. Grahman (2002) stated that time is a precious resource that should be utilized efficiently. He noted that quality schools allocate more time to instructional activities to enhance academic performance of students.

4.4.3 Implementation of Tendering Policy

The study sought to find out the financial management practices the principals used to enhance internal efficiency through the implementation of tendering policy.

Table 4.9: Existence of operational tendering committee

	Frequency	Percent
Yes	25	86.2
No	4	13.8
Total	29	100

Majority of the sampled principals (86.2%) indicated that their schools had operational tendering committees. Four respondents (13.8%) stated that their schools did not have operational tendering committees. According to Makori (2008) the implementation of public procurement regulations could be influenced by financial standing of the school. However, Wambui (2013) asserts that operational tendering committees in schools provide diverse options for prudent spending in schools to enhance internal efficiency. The schools that did not have operational tendering did not adhere to the ministry of education guideline on procurement to enhance internal efficiency.

The researcher sought to explore how often the tendering committee tendered for goods and services and the results are presented in Figure 4.2

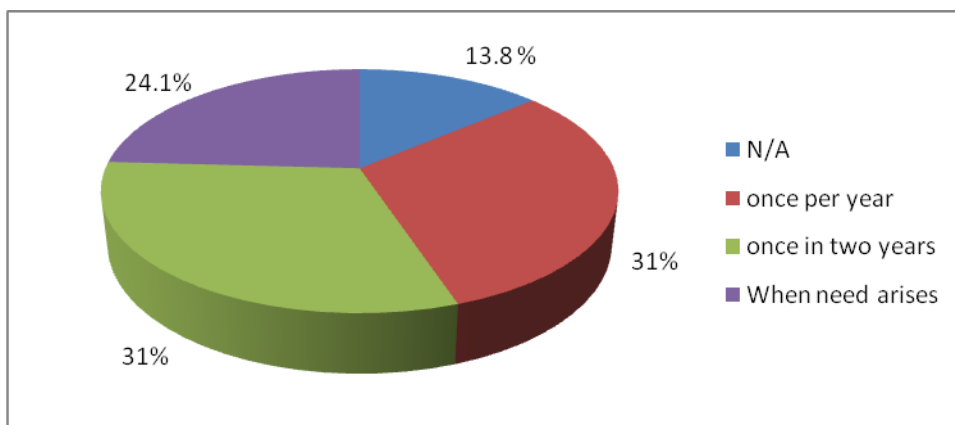


Figure 4.2: Often the tendering committee tendered for goods and services

Figure 4.2 reveals that 31% of the principals indicated once per year and once in two years while 24.1% stated when need arose. The inconsistency noted in tendering in the findings can be attributed to irregular fees payment and delayed government funds which hamper smooth running of schools. Inconsistency in tendering was an indication that some goods were obtained through direct sourcing at exaggerated prices. Mismanagement of financial resources leads to internal inefficiency. Oyaro (2008) notes that despite the measures that have been taken by the government in the provision of education, access to secondary education is still skewed in favor of the privileged. The issues of poor academic performance, school dropout and retention rate in the locale of this study may be attributed to inconsistencies in the implementation of financial management policies. Such practices create loopholes for mismanagement of funds which hamper the implementation of educational programs.

To establish if school projects were completed within the proposed time frame, the study came up with results in Table 4.10.

Table 4.10: Completion of projects within the time frame

	Frequency	Percent
Yes	5	16.1
No	26	83.9
Total	31	100

Majority of the respondents (83.9%) indicated that school projects were not completed within the proposed time frame while 16.1% indicated that they were completed within the proposed time frame. Information obtained from the SCDOE with regard to completion of school projects indicated that most of the projects especially those funded by CDF were completed in time. However, the respondent indicated that there was delay in completing those projects that were funded by the parents due to non-payment of the project money by some parents. Delay in the completion of school projects negatively affect school activities and educational programs which in turn impacts negatively on internal efficiency in schools. The results corroborate the findings of Waweru and Orodho (2014) who established that schools with a shared vision and common sense of purpose in terms of resource mobilization and utilization register good grades in academics.

The respondents were requested to state reasons why the projects were or were not completed within the proposed time frame. The findings are presented in Table 4.11

Table 4.11: Reasons for delay or completion of projects

	Frequency	Percent
Funds are available	5	17.2
Inadequate funding	6	20.7
Delay in Funding	19	58.6

The respondents who stated that the school projects were completed within the proposed time frame cited availability of funds as the major reason. Majority of the respondents (58.6%) indicated the projects were not completed within the proposed time frame due to delay in funding while 20.7% stated inadequate funding. When school programs are not completed within the proposed time frame, their cost goes up due to inflation. As a result, more money is used at the expense of other school activities and programs. The results supported the findings of a study by Ngware, Onsomu and Muthaka (2007) who established that inadequate and delayed funding has been a major hindrance to the implementation of cost saving measures in schools aimed at enhancing internal efficiency.

4.5 Utilization of Teaching and Learning Time

Table 4.12 shows the findings of the principals' rating of teachers and students time management.

Table 4.12: Rating of teachers and students time management

Teachers			Students		
	Frequency	Percent		Frequency	Percent
Very good	1	3.4	Very good	1	3.4
Good	24	82.8	Good	11	37.9
Fair	4	13.8	Fair	15	51.7
			Poor	2	6.9
Total	29	100.0	Total	29	100.0

Table 4.12 shows that 82.8 % of the principals stated that time management of the teachers was good, 13.8% stated that it was fair while 3.4% indicated it was very good. On the other hand, 51.7% of the principals rated students' time management as fair, 37.9% stated that it was good, 3.4% indicated that it was very good while 6.9% stated that it was poor. According to Abagi and Odipo (1997) analysis research on efficiency in education reveal that emphasis has been on the manipulation and operation of inputs and output whose prices are easy to determine for example the structural process of time management. From the results teachers' time management generally enhanced internal efficiency while the students' time management did not. The way students managed their time was not in line with the strategies that enhance internal efficiency. Majority of the students' poor learning outcomes in the sampled schools can be attributed to poor time management as indicated in Table 4.12.

The principals were requested to state if there was other time allocated for teaching apart from the formal teaching hours.

Table 4.13: Extra time for teaching

Extra time for teaching	Extra cost	
	Frequency	Percent
Yes	29	100
No	0	00
Total	29	100

From Table 4.13 all the principals (100%) indicated that they created extra time for teaching. The qualitative data from the interview with SCQASO also revealed that efforts were made to improve the quality of learning outcomes in the sub county. In response to what measures that were taken to improve internal efficiency in schools, the respondent said, *“The principals were encouraged to come up with remedial programs for the time takers (students with low academic ability) to enhance educational outcomes.”* This was a very important measure taken because studies have shown that increase in contact hours of teaching and learning enhance academic performance (Ayodele, 2015; Chapman, 2002). Improvement in academic performance is an indicator of internal efficiency in schools.

The researcher then wanted to establish if the extra time teaching was done at a cost or not and the findings are as shown in Table 4.14

Table 4.14: Payment for extra time teaching

	Frequency	Percent
Yes	11	37.9
No	18	62.1
Total	29	100

The results indicate that 62.1% of the principals stated that the extra time teaching was not done at extra cost while 18% stated that it was done at extra cost. Even though the respondents were not asked to state the source of funding, teaching at extra cost meant increase in education budget. Aoki et al. (2002) recommends that the government should lower the cost of education in public secondary schools to make it affordable especially for families from low socio-economic class.

Table 4.15: Issues of time wastage

	Students' unrest		Students' absenteeism		Teachers' absenteeism		Teachers' strikes		Prolonged assemblies		Unnecessary meetings	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
SD	7	24.1	2	6.9	1	3.4	0	00	0	00	12	41.4
D	7	24.1	0	00	5	17.2	6	20.7	18	62.1	11	37.9
A	4	13.8	11	37.9	19	65.5	15	51.7	11	37.9	6	20.7
SA	11	37.9	16	55.2	4	13.8	8	27.6	0	00	0	00
Total	29	100	29	100	29	100	29	100	29	100	29	100

Note. *f*- Frequency, % percentage, SD-Strongly Disagree, D-Disagree, A-Agree & SA-Strongly Agree

The results in Table 4.15 show that 24.1% of the respondents strongly disagreed that students' unrest wasted time, 24.1% disagreed, 13.8% agreed while 37.9% strongly

agreed. Concerning students' absenteeism, majority of the principals (55.2%) strongly agreed that it wasted time, 37.9% agreed while 6.9% strongly disagreed.

Asked as to whether teachers' absenteeism wasted time, 13.3% strongly agreed, 65.5% agreed, 17.2% disagreed while 3.4% strongly disagreed. Teachers' strikes were stated as one factor that led to time wastage. Majority of the respondents representing 51.7% agreed that teachers' strikes wasted time, 27.6% strongly agreed while 20.7% disagreed.

The principals were also asked to rate their opinion on whether prolonged assemblies wasted time or not. From the results, 62.1% of the principals disagreed while 37.9% agreed. Regarding unnecessary meetings wasting time, 41.4% of the respondents strongly disagreed, 37.9% disagreed while 20.7% agreed. From the results, mismanagement of time was a threat to internal efficiency since it results to poor learning outcomes. Based on the findings, the issue of time wastage especially by the students negatively affected internal efficiency of the schools studied. The consistent below average performance in most schools in the sub county may be attributed to poor time management. Grahman (2002) states that time is a precious resource that should be utilized efficiently. He noted that quality schools allocate more time to instructional activities to enhance academic performance of students.

The study sought to find out the cost saving measures to counter time wastage and the results are shown in Table 4.16.

Table 4.16: Cost saving measures in time management

	Frequency	Percent
N/A	2	6.9
Lesson attendance register	18	62.1
Prep time and remedial	7	24.1
Make up for lessons not taught	2	6.9
Total	29	100

Table 4.16 shows that 6.9% of the principals did not adopt any measure, 62.1% used lesson attendance register, 24.1% adopted prep time and remedial teaching while 6.9% adopted make up lessons for unattended lessons. Table 4.15 indicates that there are a number of issues that led to time wastage in the sampled schools. Therefore, 6.9% of the respondents not adopting any cost saving measure in time management indicated unsustainability of educational programs. Unsustainable educational programs are a recipe for internal inefficiency for example poor academic performance. The SCDOE and SCQASO reported that there were cost saving measures on time management in place which were mostly supervised by TSC. Some of the cost saving measures highlighted include; lesson recovery schedule, lesson attendance register and teacher appraisal on time management. Lamb (2007) established effective schools implement cost saving measures on effective time management to ensure that the available resources yield maximum benefits.

The researcher sought to find out the extent to which cost saving measures on time management in Table 4.16 affected improvement in academic performance of students and the results are presented in Table 4.17.

Table 4.17: Effect of cost saving measures on improvement of academic performance

	Frequency	Percent
Small extent	4	13.8
Average	9	31.0
Large extent	16	55.2
Total	29	100

Table 4.17 shows that 13.8% of the respondents reported that cost saving measures on time management improved academic performance to a small extent, 31.0% indicated average while majority (55.2%) indicated that the cost saving measures improved academic performance to a large extent. The findings indicate that generally the respondents agreed that cost saving measures on time management positively impacted on academic performance of the students. However, as indicated in Table 4.16 in some schools, cost saving measures on time management were not implemented. This situation may be attributed to poor performance, absenteeism and school drop out in the sub county. Ngware, Onsomu, Muthaka and Manda (2006) noted that the effectiveness of cost saving measures influenced improvement in academic performance of students. Therefore, the indicators of internal inefficiency noted in some schools in Gatundu North Sub County may be attributed to ineffective cost saving measures.

4.6 Influence of Implementation of Cost Saving Measures on Internal Efficiency

4.6.1 Influence of Teachers' Workload on Academic Performance of Students

The researcher conceptualized academic performance as an indicator of internal efficiency in schools. Since the teachers' workload has a direct influence on academic performance of students, the study aimed at finding out the extent to which workload allocation according to CBE impacted on internal efficiency of schools. The results are presented in Table 4.18.

Table 4.18: Extent to which teachers' workload influence academic performance of students

	Frequency	Percent
Small extent	1	3.4
Average	6	20.7
Large extent	22	75.9
Total	29	100

Table 4.18 shows that 3.4% of the principals indicated that the teachers' workload affected academic performance of the students to a small extent, 20.7% indicated average while 75.9 % indicated large extent. The findings are consistent with earlier studies which established that heavy teaching workload negatively affected academic performance of students (Gwambombo, 2013; Banerjee, 2016). Therefore, dismal academic performance that is registered in most schools in the sub county may be associated with the teacher's workload.

4.6.2 Influence of Tendering and Budget Preparation on Sustainability of Educational Programmes

Another cost saving measure in schools is implementation of tendering and budget preparation policies. The major objective of this study was to find out the impact of these cost saving measures on internal efficiency in public secondary schools in Gatundu North Sub County.

Table 4.19: Sustainability of educational programmes in school

	Frequency	Percent
Small extent	0	0
Average	8	27.6
Large extent	21	72.4
Total	29	100

From Table 4.19, 27.6% of the respondents indicated that implementation of tendering and budget preparation policies averagely affected the sustainability of educational programs while 72.4% indicated that they affected to a large extent. Olson and Kellum (2003) established that sustainability of educational programs was affected by tightened school budgets due to inadequate financial resources. Therefore, internal efficiency of public secondary schools in Gatundu North Sub County is affected by delay in disbursement of funds and inadequate funding as indicated in Table 4.7.

4.6.3 Influence of Tendering and Budget Preparation on Completion and Retention Rates

The study also sought to find out the extent to which implementation of tendering and budget preparation policies affect completion and retention rates in the sampled schools and the results are presented in Table 4.20

Table 4.20: Extent to which implementation of tendering and budget preparation policies affect completion and retention rates

	Frequency	Percent
Small extent	19	65.5
Average	6	20.7
Large extent	4	13.8
Total	29	100

The results in Table 4.20 revealed that 65.5% of the respondents indicated that implementation of tendering and budget preparation policies affected completion and retention rates to a small extent, 20.7% indicated average while 13.8% indicated to a large extent. These results may be attributed to the delay in disbursement of funds and inadequate financial resources as shown in Table 4.7. Therefore, it's the delay in disbursement of funds that negatively affected financial management practices and hence the internal efficiency of the schools that were involved in the study.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings and the implications on internal efficiency of schools. It also presents the conclusions based on the findings and it ends with policy and further research recommendations.

5.2 Summary of Findings

Summary of findings has been presented according to the objectives that guided the study.

5.2.1 Teacher Utilization According CBE

The first objective of this study was to establish the extent to which CBE is implemented in public secondary schools in Gatundu North sub-county. It was found that majority of the teachers were employed by the TSC.

All the schools that participated in the study faced the challenge of teacher shortage which was mitigated through employment of teachers by B.O.M. Analysis of work load for different subject categories revealed that a substantial number of teachers were underutilized and therefore, employment of teachers by B.O.M was not a better option to enhance internal efficiency. Employment of teachers by B.O.M increased expenses on salaries and allowances which stretched further the meager financial resources available. It was also found that some subject categories had more than the recommended 27 lessons per week and therefore exerting pressure on the available resources which may jeopardize internal efficiency.

5.2.2 Budget Preparation and Tendering

The second objective, the study sought to investigate the extent to which tendering and budget preparation policies are implemented in public secondary schools. The findings revealed that majority of the schools depended on government funding, school fees and bursaries to finance educational programmes. It was noted that majority of the schools did not have diverse sources of funding to enhance internal efficiency.

All the principals sampled reported that their schools prepared annual budget to ensure prudent utilization of financial resources. It was established that a number of challenges were faced in the implementation of the budget namely; delayed funds, nonpayment of school fees and increase in school debts. The findings showed that in order to deal with the financial challenges, majority of the principals sent students home for school fees, negotiated with the suppliers and a few delayed buying of teaching and learning materials. Some of the strategies employed for example, sending students home impacted negatively on internal efficiency. To ensure that schools' financial management practices were in line with the ministry of education guidelines, majority of the principals reported that they had operational tendering committees.

It was found that the tendering committees met mostly once per year to tender for goods and services. The findings indicated that most schools were on the right track as pertains to procurement policy requirements to boost internal efficiency.

As to whether the school projects were completed within the proposed time frame, it was found that the projects stalled due to delay in disbursement of funds by MOE

and inadequate funding. Delay in disbursement of funds and limited financial resources were found to be major stumbling blocks in the implementation of cost saving measures geared towards enhancing internal efficiency.

5.2.3 Time Management

Effective time management has been shown to enhance internal efficiency in schools. The study established that teachers generally managed time well in carrying out their duties. Furthermore, it was found that teachers created extra time for teaching in an effort to improve academic performance. However, the students were rated below average in time management which is not in line with internal efficiency enhancement strategies.

Concerning issues that wasted time in schools, the results revealed that students' strikes and absenteeism, teachers' absenteeism and strikes and prolonged assemblies were a threat to internal efficiency with regard to time management. To mitigate time wastage, the study established that majority of the principals instituted various cost saving measures to recover for the lost time. However, a small percentage of the respondents did not put in place any cost saving measure in an endeavor to enhance internal efficiency.

5.2.4 Role of Cost Saving Measures in Internal Efficiency

The cost saving measures examined were; teaching workload, tendering and budget preparation. The internal efficiency indicators were; academic performance, sustainability of educational programs, retention and completion rates.

From the results, generally the respondents indicated that the teachers' workload affected academic performance of students. However, the dismal academic performance registered in most of the schools in Gatundu North Sub County cannot be attributed to heavy teaching workload since it was established that most teachers had 24 lessons per week when the recommended number of lessons is 27 lessons per week.

Concerning implementation of tendering and budget preparation policies, it was found that cost saving measures impacted on the sustainability of educational programs, retention rates and completion rates. Delay in disbursement of FDSE funds and inadequate financial resources were found to derail budget implementation which in turn impacted negatively on the indicators of internal efficiency.

5.3 Conclusion

The first objective of this study was to establish the extent to which CBE is implemented in public secondary schools in Gatundu North sub-county. From the findings, majority of the teachers were employed by the TSC. However, teacher shortage was still noted as a major challenge. The current policy on teacher recruitment and in-service training were not adequate to address staffing issues and dwindling performance respectively.

Objective two of this study was to investigate the extent to which tendering and budget preparation policies were implemented in public secondary. Most schools depend on government funding, school fees and bursaries to finance their

educational programs. Annual school budget was prepared but implementation of the budget was a challenge due to delayed FDSE funds, nonpayment of school fees and increased debts. The schools had operational tendering committees which met regularly to tender for goods and services.

On the issue of completing school projects within the proposed time frame, majority of the projects were not completed as per the plan due to delayed and inadequate funding. Delay in disbursement of funds and limited financial resources were the major stumbling blocks in the implementation of cost saving measures geared towards enhancing internal efficiency.

The third objective of this study was to examine the extent to which teaching and learning time is effectively utilized in public secondary schools. Generally teachers manage their time well but students need a lot of guidance because much of their time was not properly utilized. Teachers' and students' strikes and absenteeism waste a lot of valuable time for teaching and learning. Cost saving measures in time management were not effectively implemented to enhance internal efficiency.

The fourth objective of this study was to investigate the influence of implementation of cost saving measures on academic performance of public secondary schools. Teaching workload and time management significantly impact on academic performance of students.

5.4 Recommendations

Based on the study findings, the study makes the following recommendations to parents, teachers and principals, B.O.M of schools and ministry of education policy makers.

- i. School principals should seek alternative ways such as phasing out school fees payment and looking for sponsors and bursaries for needy students instead of sending them home for school fees.
- ii. School principals should ensure that TSC teachers have appropriate work load recommended by the Ministry of Education before employing B.O.M teachers to reduce expenditure on salaries and allowances.
- iii. Principals, teachers and parents should work collaboratively in guiding students on effective time management to bolster achievement.
- iv. TSC should come up with effective teacher recruitment policy and seek partnerships in funding to employ more teachers to address the current teacher shortage.
- v. The MOE should release the FDSE money in good time to schools to ensure smooth running of educational programmes.

5.5 Recommendations for Further Research

The study makes the following recommendations that may guide future research;

- i. This study adopted descriptive survey research design. It's important a similar study be designed using correlational research design to determine the extent to which cost saving measures correlate with internal efficiency.

- ii. There is need to study the determinants of cost saving measures adopted in schools.
- iii. Similar studies should be conducted in other sub counties in Kenya to compare the findings.

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APPENDICES

APPENDIX A: QUESTIONNAIRE FOR PRINCIPALS

Introduction

I am a post graduate student at Kenyatta University. The research is meant for academic purpose. This questionnaire is about the impact of cost-saving measures on internal efficiency in Public Secondary Schools in Gatundu North Sub-County. Kindly provide the required information honestly and precisely as possible. Responses to these questions will be treated as confidential. Please do not write your name or that of your school anywhere on this questionnaire. Please tick (√) where appropriate or fill the required information.

Section A: Background information

1. Your gender Male [] Female []
2. Academic Qualifications MED [] B.Ed [] Dip/Ed []
Others (Specify)
3. For how many years have you been a Principal?
0 – 5 Years [] 6 – 10 Years [] Above 10 Years []
4. Type and status of the school (Tick appropriately)
Boys [] Girls [] Mixed []
Boarding [] Day [] Day and Boarding []
National [] County [] Sub-County []
5. (a) Number of streams in your school.
Single Streamed []
Double Streamed []
More than two streams []

(b) What is the average number of students per class?

- | | | | |
|----------|-----|----------|-----|
| Below 20 | [] | 20 – 29 | [] |
| 30 – 39 | [] | 40 – 49 | [] |
| 50 – 59 | [] | Above 60 | [] |

SECTION B: Teacher utilization according to Curriculum Based Establishment

1. (a) What is the total number of teachers in the school?

(b) Indicate the number of teachers under:

T.S.C.

B.O.M.

(c) Teacher qualification (Please give the number)

Untrained

Trained

(d) What is the Curriculum Based Establishment (CBE) of the school?.....

2. (a) Indicate the average teaching load per week for different subject categories:-

No.	Subject Categories	Teaching Load Per Week
i	Languages	
ii	Mathematics	
iii	Sciences	
iv	Humanities	
v	Technical and Applied	

Section C: Budget Preparation and tendering committee

1. (a) Does the school management prepare the yearly school budget?

Yes [] No []

(b) Which of the following challenges do you encounter in implementing the budget?

Delayed FSE funds from the Government []

Nonpayment of fees []

Increase in school debts []

All of the above []

Any other challenge

(c) How do you deal with the above challenges?

Delay buying teaching /learning materials []

Send students home to get fees []

Negotiate with the suppliers []

All of the above []

Any other

2. (a) Does the school have an operational tendering committee?

Yes [] No []

If yes, how often do they tender for goods and services for the school?

Once per year [] Once in two years []

Tender when need arises []

(b) Are projects within the school completed within the proposed time frame?

Yes [] No []

Give the reason for your answer.....

Section D: Time management

(1) How do you rate time management by the following in your school?

(a) Teachers: very good [] Good [] Fair [] Poor []

(b) Students: very good [] Good [] Fair [] Poor []

(2) Apart from formal teaching hours, is there other time allocated for teaching?

Yes [] No []

If yes, is it done at an extra cost? Yes [] No []

Issues of time wastage	SA	A	D	SD
Students unrest/ strikes				
Students absenteeism				
Teachers strikes				
Teachers absenteeism				
Prolonged assemblies				
Unnecessary meetings				

(3) (a) Which cost saving measures are being practiced in your school in relation to time management.....

(4) To what extent does poor time management in your affect academic performance of students?

Small extent..... Average Large extent.....

Section E: Implementation of cost saving measures on internal efficiency

1. To what extent does the teacher's workload affect academic performance of students?
Small extent..... Average Large extent.....

2. To what extent does the implementation of tendering and budget preparation policies affect the sustainability of educational programmes in your school?
Small extent..... Average Large extent.....

3. To what extent does the implementation of tendering and budget preparation policies affect completion and retention rates in your school?
Small extent..... Average Large extent.....

APPENDIX B: INTERVIEW SCHEDULE FOR SCDOE / SCQASO

Introduction

The purpose of this interview schedule is to collect data on the impact of cost-saving measures on internal efficiency in public secondary schools in the Gatundu Sub-County.

Please feel free to provide your answers truthfully.

- 1) Which Policy issues are you employing to enhance internal efficiency in relation to:

Enrolment rates

Absenteeism

Dropout rates

Completion rates
- 2) What is your view on the current policy of teacher recruitment which is demand driven?
- 3) Give details about adequacy of teachers in the sub-county per the curriculum based establishment?
- 4) What cost-saving measures are being implemented in the Public Schools in the Sub-County to enhance internal efficiency?
- 5) What challenges are faced in implementing the cost saving measures?
- 6) What are the possible proposals you would make concerning cost saving measures in enhancing internal efficiency?

**APPENDIX C: RESEARCH APPROVAL FROM KENYATTA
UNIVERSITY**



**KENYATTA UNIVERSITY
GRADUATE SCHOOL**

E-mail: dean-graduate@ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Website: www.ku.ac.ke

Internal Memo

FROM: Dean, Graduate School

DATE: 11th July, 2016

TO: Kinuthia Mary Waithira
C/o Educational Management Policy
& Curriculum Studies Dept.
Kenyatta University

REF: E55/CE/24325/2012

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 8th June, 2016 approved your Research Project Proposal for the M.Ed Degree Entitled, **“Impact of Cost Saving Measures on internal Efficiency in Public Secondary Schools in Kiambu County, Kenya”**.

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.


for **EDWIN OBUNGU**
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Educational Management Policy and Curriculum Studies Department.

Supervisors:

1. Dr. Michael Murage
Department of Educational Management Policy and Curriculum Studies
Kenyatta University
2. Dr. Mary Otieno
Department of Educational Management Policy and Curriculum Studies
Kenyatta University

EO/rwm

**APPENDIX D: RESEARCH AUTHORIZATION FROM
KENYATTA UNIVERSITY**



**KENYATTA UNIVERSITY
GRADUATE SCHOOL**

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: E55/CE/24325/2012

DATE: 11th July, 2016

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

**RE: RESEARCH AUTHORIZATION FOR KINUTHIA MARY WATHIRA – REG. NO.
E55/CE/24325/2012**

I write to introduce Ms. Kinuthia Mary Waithira who is a Postgraduate Student of this University. She is registered for M.Ed degree programme in the **Department of Educational Management Policy and Curriculum Studies**.

Ms. Kinuthia intends to conduct research for a M.Ed Project Proposal entitled, “**Impact of Cost Saving Measures on internal Efficiency in Public Secondary Schools in Kiambu County, Kenya**”.

Any assistance given will be highly appreciated.

Yours faithfully,



MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL

EO/rwm

APPENDIX E: AUTHORIZATION LETTER FROM NACOSTI



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying Please quote

9th Floor, Utalii House
Uhuru Highway
P. O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/16/28040/12988**

Date:

7th September, 2016

Mary Waithira Kinuthia
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Impact of cost saving measures on internal efficiency in public secondary schools in Kiambu County, Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Kiambu County** for the period ending **26th August, 2017.**

You are advised to report to **the County Commissioner and the County Director of Education, Kiambu County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.


BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kiambu County.

The County Director of Education
Kiambu County.

APPENDIX F: RESEARCH PERMIT

Permit No : NACOSTI/P/16/28040/12988
Date Of Issue : 7th September, 2016
Fee Received : Ksh 1000

THIS IS TO CERTIFY THAT:
MISS. MARY WAITHIRA KINUTHIA
of KENYATTA UNIVERSITY, 70375-400
Nairobi, has been permitted to conduct
research in Kiambu County
on the topic: IMPACT OF COST SAVING
MEASURES ON INTERNAL EFFICIENCY IN
PUBLIC SECONDARY SCHOOLS IN
KIAMBU COUNTY, KENYA
for the period ending:
26th August, 2017



M. Waithira Kinuthia
Applicant's Signature

[Signature]
Director General
National Commission for Science,
Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officer will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice



REPUBLIC OF KENYA



NACOSTI
National Commission for Science,
Technology and Innovation
RESEACH CLEARANCE
PERMIT
Serial No.A **10836**
CONDITIONS: see back page

**APPENDIX G: RESEARCH AUTHORIZATION FROM COUNTY
COMMISSIONER**

**OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT
COUNTY COMMISSIONER, KIAMBU**

Telephone: 066-2022709
Fax: 066-2022644
E-mail: countycommkiambu@yahoo.com
When replying please quote



County Commissioner
Kiambu County
P.O. Box 32-00900
KIAMBU

Ref.No: **ED.12/1/VOL.IV/121**

16th September, 2016


Mary Waithira Kinuthia
Kenyatta University
P.O. Box 43844 - 00100
NIAROB

RE: RESEARCH AUTHORIZATION

Reference is made to National Commission for Science, Technology and Innovation letter Ref No. **NACOSTI/P/16/28040/12988** of **7th September, 2016**.

You have been authorized to conduct research on *"Impact of cost saving measures on internal efficiency in public secondary schools in Kiambu County"*. The data collection will be carried out in *Kiambu County* for a period ending **26th August, 2017**.

You are requested to share your findings with the County Education Office upon completion of your research.


J. A. RATEMO
FOR: COUNTY COMMISSIONER
KIAMBU COUNTY

Cc County Director of Education
KIAMBU COUNTY

✓ National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

All Deputy County Commissioner (*For information and record purposes*)
KIAMBU COUNTY

"Our Youth our Future. Join us for a Drug and Substance free County".

APPENDIX H: RESEARCH AUTHORIZATION FROM COUNTY

DIRECTOR OF EDUCATION



**MINISTRY OF EDUCATION
State Department of Education**

Telephone: Kiambu (office) 020-2044686
FAX NO. 020-2090948
Email: directoreducationkiambu@yahoo.com
When replying please quote

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY
P. O. Box 2300
KIAMBU

KBU/CDE/HR /4/11/ (165)

20th September, 2016

Mary Waithira Kinuthia
Kenyatta University
P.O. Box 43844-00100
NAIROBI


RE: RESEARCH AUTHORIZATION

Reference is made to the National Commission for Science, Technology and Innovation letter Ref. No. NACOSTI/P/16/28040/12988 dated 7th September 2016.

Authority has been granted to you to do research on "*Impact of cost saving measures on internal efficiency in public secondary schools*" for a period ending 26th August, 2017.

Please accord her the necessary assistance.

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY


P.O. Box 2300 KBU.
Tel: 020 2044686
FAX: 020 2090948

EMILY M. NYAGA

For: COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY