

**INFLUENCE OF AUSTERITY MEASURES ADOPTED BY PRINCIPALS ON
SERVICE DELIVERY IN PUBLIC SECONDARY SCHOOLS IN
NANDI CENTRAL SUB COUNTY, KENYA**

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**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF POST GRADUATE
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(ECONOMICS) SCHOOL OF EDUCATION AND HUMAN RESOURCES
DEVELOPMENT DEPARTMENT OF EDUCATION AND MANAGEMENT OF KISII
UNIVERSITY**

NOVEMBER, 2019

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DEDICATION

I would like to dedicate this thesis to my loving and ever supportive husband for his perspective in life has taught me patience, resilience and the hope to keep moving. To my entire family for their encouragement and support.

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ABSTRACT

In Kenya the school fees charged by public secondary schools have risen dramatically, this is way far beyond the reach of many Kenyans. Many secondary school Head teachers attribute this to the rising inflation levels causing rise in prices for commodities which are necessary for the day to day running of schools. The purpose of the study was to establish the influence of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County. The study was guided by the following objectives: to establish the adoption of income generating activities on service delivery in public secondary schools, to examine the influence of utilization of available resources on service delivery in public secondary schools, to determine the influence of prioritization of projects on service delivery in public secondary schools and to find out the alternative sourcing of finance on service delivery in public secondary schools. The study was guided by systems theory of administration and human capital theory. A survey research design was used targeting 36 boarding secondary schools, with 36 principals, 204 heads of department and 132 board of management (B.O.M). Secondary schools were clustered into four zones; Kapsabet, Emgwen, Kosirai and Kilibwoni, simple random sampling was used to select 30% of the required schools, all the principals of the selected schools were part of the respondents arriving to a sample of 61 heads of department, 40 BOM and 10 Principals making a total of 111. The questionnaires and interviews were used to collect data. Data was analyzed using descriptive statistics which include frequencies and percentages and was presented in form of frequency tables and charts. The significance of this study will give beneficial information to the school community in the area of budgeting especially in addressing shortfalls where they do arise. Findings on adoption of income generating activities on service delivery revealed that the majority of the respondents indicated that application for annual CDF support /grants, installation of Posho mills, engaging in agricultural activities, starting up a bakery business should be adopted. The study further established that prioritization of projects on service delivery was through utilization of available resources, initiating income generating activities and scaling down development projects. In conclusion income generated activities included installation of Posho mills and engaging in agricultural activities. Recommendations suggested included: - government to ensure that school fees for schools are not raised but instead encouraging schools to seek for alternative sources of financing such as farming. BOM should network to get more funding from sponsors. School principals should develop procedures that require school members including teachers to participate in income generating activities. Other researchers should research on the effects of utilization of available resources to cope up with rising cost of education in secondary schools in Kenya.

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LIST OF ABBREVIATIONS

BOM	Board of Management
CDF	County Development Funds
HOD	Heads of Department
MDGs	Millennium Development Goals
NGOs	Non- Governmental Organizations
PTA	Parents Teachers Association
SPSS	Statistical Package for Social Scientists

LIST OF ACRONYMS

MOEST

Ministry of Education Science and Technology

UNESCO

United Nations Educational, Scientific and Cultural Organization

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Financing secondary education is important as it constitutes an investment in education that yields considerable social and private returns. In Africa, there are four critical reasons for investing in secondary education (Bregman and Stallmeister, 2012; IBRD, 2015): First, secondary education is crucial for economic growth and development. Technological change in the 21st century has made knowledge essential for competing in the world markets. Secondary education therefore provides countries with the human capital needed for economic growth. In addition, it provides a link between primary education and further learning and training of professionals such as technicians, scientists, and entrepreneurs. According to Hanold, (2012), there has been a massive increase in education expenditure all over the world due to increased expenditure of education which has been attributed by inflation, the need for more new technologies and the ever-growing demand for education; this has led to increase in cost of education. In Canada, the actual operating expenditure exceeded the expenditure recognized under foundation programme of education.

According to the New York Times (April 4 2015) public investment in secondary education in America is vastly larger today in inflation-adjusted dollars, than it was during the supposed golden age of public funding in the 1960s. Such spending has increased at a much faster rate than government spending in general. In other words, far from being caused by funding cuts, the astonishing rise in education correlates closely with a huge increase in public subsidies for education. Some of these increased spending in education has been driven by a sharp rise in the

percentage of Americans; the percentage of the population enrolled in secondary schools has risen significantly, especially in the last 20 years. Enrollment has increased by almost 50 percent since 1995. As a consequence, while state legislative appropriations for secondary education have risen much faster than inflation, total state appropriations per student are somewhat lower than they were at their peak in 1990. Appropriations per student are much higher now than they were in the 1960s and 1970s, when tuition was a small fraction of what it is today

Over the years, the rapidly increasing costs of education in the US have been blamed on a number of different factors like teachers inflated salaries, construction booms on schools, students demanding luxury amenities, increased administrative costs, state funding cuts and technological changes hence creating big problems for both school managers and the economy at large (USA Today November 8, 2015) .

In the past fifteen years, tuition fee in Canada has grown to become the single largest expense for most secondary schools. The dramatic tuition fee increase during this period were the direct result of cuts to public funding for secondary education by the federal government and, to some lesser extent, provincial governments, Public funding currently accounts for an average of approximately 57 percent of school operating funding, down from 80 percent just two decades ago. During the same period, tuition fee has grown from 14 percent of operating funding to over 35 percent. This constitutes a rapid re-orientation of Canada's secondary education system away from a publicly funded model and towards a privatised, user fee system. Rapidly increasing tuition fee has caused secondary education to become unaffordable for many low- and middle-income Canadians (Canadian Federation of Students, 2002-2015).

In some African countries today, secondary education is in a state of crisis. While quality, access and curricular reforms continue to serve as an ongoing source of public policy debate, educational policy makers are confronting increasing constraints in increased expenditure in education (LeBel, 2010). The current situation is characterized by the education sector's increasing claim on household and public sector resources against a backdrop of widespread poor economic growth, mounting international debt, and rapidly growing populations whose demand for education cannot be met readily by existing finances.

In Africa there exists abundant literature on financing education showing that a number of African countries, Kenya included, are faced with austere options for addressing the increasing expenditure in secondary schools and indeed all other levels of education (IBRD, 2005; LeBel, 2010; Lewin and Caillods, 2011; United Nations Educational, Scientific and Cultural Organization (UNESCO, 2006). First, a country needs to consider whether to retain and sustain the baseline or existing financing scenario. This includes maintaining existing institutional frameworks at all levels of educational resources including tuition expenditure, infrastructural resources, extracurricular expenditure and boarding fees to an ever-growing secondary school population.

Such an option may not be sustainable, as it will reduce the effectiveness of the schooling received in the long term. In any case, this alternative is not only unfavorable among educational planners, but it also limits the achievement of a country's social and political goals. In Kenya, allocating static levels of education resources in the past has led to increased technical inefficiency in form of reduced quality of secondary education due to unavailability of resources. According to the Republic of Kenya report on Budget speech Nairobi (2009/2010) the goals of education are to promote social, economic, technological and industrial needs for national

development. This goal when fully applied in the secondary schools system can assist school management to utilize the limited resources so as to maximize educational benefits. Through the adoption of modern technology in schools, cost of education will end up decreasing.

Costs in education to be met through partnerships between the public sector and Non-Governmental Organizations (NGOs), religious organizations, development partners, communities/individuals, and the private sector (GoK, 2013). Within this funding policy framework, the overall government role includes the professional development of teachers, teachers' remuneration in public institutions, provision of infrastructure, administration and management, and provision of bursaries and scholarships for needy students.

In education expansion, the policy has led to escalation of costs of schooling which include physical infrastructure development and maintenance; payment for tuition, public examinations, catering and accommodation in boarding schools, payment of school amenities (transport, water, energy and communication), student's personal expenses, and remuneration of teaching and non-teaching staff (GoK, 2013).

The policy makers are therefore faced with a challenge of ensuring that secondary school principals adopt austerity measures that ensure that they cope up with rising cost of education. In view of this, policy makers should strive to devise financing policies and strategies specific to Kenya's socio-economic and political context and taking into account external realities. Such policies and strategies need to be as inclusive as possible.

Austerity measures are set of policies which aim at reducing government budget deficits. Austerity policies may include spending cuts, freezing salary increments for the non-teaching

staff, prioritization of co-curricular activities, reducing workshop and seminars for teachers, reducing the number of outings for students and increasing workload for non-teaching.

In Kenya there are various studies that have been done on austerity measures adopted by principals to cope with the rising expenditures. Njeru (2013), did a study on measures adopted to reduce operational costs in education, he states that schools should always advertise tenders on all of their projects and enable the public to bid for them. Kones (2012) did a study on strategies adopted by secondary school principals to address the rising cost of education, a case study of Kuresoi District, Nakuru County; he states that the biggest effect of the rising cost of education is the academic performance of the schools as opposed to the development of the schools and operations in the school. Ngware, Onsomu and Muthaka (2017) did a study on the financing status of secondary education in Kenya and explores the possible cost reduction and financing options in the long term. They stated that educational needs for secondary education in Kenya are on the increase since the introduction of Free Primary Education in 2003. Financing of secondary education continues to be a challenge to the government, parents and communities at large. They further argue that identifying sustainable financing options that maximize on cost-effectiveness in resource utilization is therefore critical.

Mogire (2013) did a study on the financial strategies used by secondary school principals in addressing budgetary deficit in Nakuru District, Nakuru County, Kenya, he stated that Seminars organized to train school heads will improve effective in instilling financial resource management skills. This study therefore left a gap on the Influence of austerity measures adopted by secondary school principals to cope up with increased cost of service delivery.

1.2 Statement of the Problem

Financial requirements of education have been on the rise and have affected universal access to basic education. The rising expenditures in schools have been the immediate consequence of measures to be taken to reduce cost of education in Kenya. The fees and other school related expenditures increased costs that have become too high for secondary school principals to cope up with. The implication of this is that the cost of running a school has become too high and the financial government support is inadequate to meet the demand. Due to the status of poverty and slow economic growth rate, the major challenge facing secondary school principals is how to control the costs of education and provide the services with the existing budgets.

In Kenya the school fees charged by public secondary schools have risen dramatically, this is way far beyond the reach of many Kenyans. Many children dropped out of school and the state of secondary education was seemingly operating like a private school with every Head teacher setting his or her own levies. Many secondary school Head teachers attribute this to the rising inflation levels causing rise in prices for commodities which are necessary for the day to day running of schools. The rising expenditures in secondary school with limited funding have become major problems facing Head teachers in provision of essential services like laboratory equipment, text books and catering services. Despite various studies done by other researchers from the above, none of these studies has been done in Nandi Central Sub County. Hence, the researcher seeks to establish the influence of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County, Nandi County, Kenya.

1.3 Purpose of the Study

The main purpose of this study was to find out the influence of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County.

1.4 Objectives of the Study

The study was based on the following specific objectives:

- i. To establish whether income generating activities influence service delivery in public secondary schools
- ii. To examine the influence of available resources on service delivery in public secondary schools
- iii. To determine the influence of prioritization of projects on service delivery in public secondary schools
- iv. To assess whether alternative sources of finance has an influence on service delivery in public secondary schools

1.5 Research Questions

This study was guided by the following research questions:-

- i. What is the influence of income generating activities on service delivery in public secondary schools?
- ii. Does utilization of existing resources influence service delivery in public secondary schools?
- iii. To what extent does prioritization of projects influence service delivery in public secondary schools?
- iv. Does alternative source of finance influence service delivery in public secondary schools?

1.6 Significance of the Study

The significance of this study lies on the influence of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County. Therefore the findings of the study are expected to enlighten the following individuals; stakeholders (BOM and donors): the outcome of the study is intended to avail beneficial information to the school community in the area of budgeting especially in addressing shortfalls where they do arise. The ministry of education Science and Technology (MOEST), may also use the findings in the formulation of future education policies aimed at supplementing, financing and reducing expenditure in education. The school principals, in addition on the measures of coping with increased expenditure in education will also use it to ensure effective teaching and learning in secondary school. It may also develop a base upon which other managers can develop their studies. Finally the study will also contribute to increased knowledge in the area of economics of education.

1.7 Scope of the Study

The study sought to find out the influence of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County, Nandi County. The study was limited to influence of income generating activities, utilization of existing resources, prioritization of projects and alternative source of finance on service delivery. A survey research design was adopted, targeting 36 boarding secondary schools, hence 36 principals, 204 heads of department and 132 BOM. A Sample of 111 was selected through purposive and simple random sampling methods. The study was confined to a cost of 375,000. Other members of the secondary school community who include students, parents, non-teaching staff, were left out as they might not be

in a position to give responses addressing the research questions. The study covered a period from August 2016 to July 2018.

1.8 Limitations of the Study

The study findings were limited to public boarding secondary schools in Nandi central Sub-County although its results were generalized to cover all other schools in the country. Further, the respondents were not willing to participate in the study in fear of exposing their school information to strangers where some of them suspected that the researcher has an ill motive to the school. This was overcome by explaining to them the intention of the study and issuing the transmittal letter from Kisii University and other relevant authorities for verification purposes.

1.9 Assumptions of the Study

The study was based on the following assumptions:

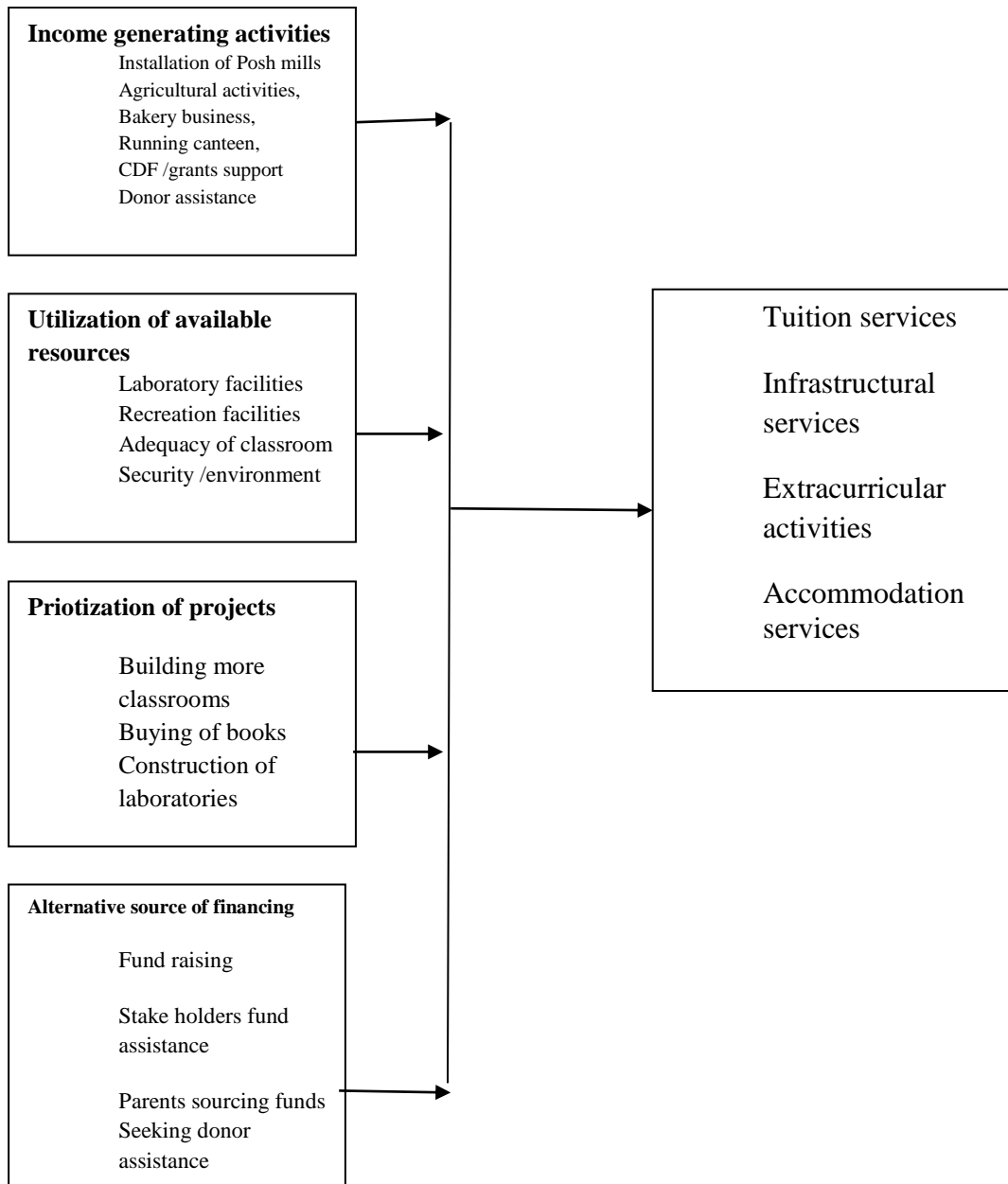
- i) Secondary school principals are faced with difficulties due to rising educational expenditure.
- ii) Researcher got permission from the National Commission for Science, Technology and Innovation (NACOSTI), as well as the County Education Office (CEO) in order to carry out the study.
- iii) Respondents of the study were willing to respond to the questions asked.

1.10 Conceptual Framework

The study identified the variables under study and showed their relationships. In the model, austerity measures adopted by principals on service delivery in public boarding secondary schools is the independent variable whereas tuition services, infrastructural services, extra curricula activities and accommodation services is the dependent variables of the study. This is shown in figure 1.1

Austerity measures

Service Delivery



Independent Variable

Dependent Variable

Figure 1.1 Conceptual Framework

1.11 Theoretical Framework

The study was guided by two theories namely Systems Theory of Administration and human capital theory

1. 12 Systems Theory of Administration

The study was based on the Systems Theory of Administration which was proposed by Simmons (2000). Systems Theory is particularly an approach in philosophy of science, aiming at understanding and investigating the world as sets of systems. Systems approach is the name of a methodology or procedure in which problems are solved from a holistic perspective, not as bundles of small isolated problems, which one then tries to combine. This theory shows the existence of a general systems theory which deals with formal characteristics of systems, concrete facts appearing as their special applications by defining variables and parameters.

This concept of systems theory suggests that the whole is greater than the sum of its parts. Simmons (2000) describes a system theory as a series of interrelated and interdependent parts, such that the interaction of any part of the system affects the whole system.

Each part is tightly linked to other parts of the organization and no single part exists in isolation of others. The systems theory rests on the belief that in all systems from the Galaxy planetary system, the society, education system, school and class room have different parts performing different functions, but in such a way that each part interacts and is interdependent with other parts and with other systems (environment) around it. Therefore what affects one part, affects the other parts in the system and its environment (Osborne, 2000).

The critic of theory is seen when Hyman (1975) argues that by accepting the processes of industrial relations as maintaining stability and equilibrium, the systems theory seems to dismiss the inevitability of conflict implicit in the existing structure of ownership, and control in industry. Therefore he argues that the systems theory is one-sided and inadequate. To him, industrial relations go beyond the recognition of formal institutions but it is necessary that personal and unstructured relationships as well as informal relationship are usually important in an industrial relations system. Hyman goes beyond job regulation in terms of command and authority and power in organizations. He justified the position of trade unions as a balance of power and argues for its sustenance as a weak union could be marginalized by the management.

This theory is relevant to our study because schools are essentially systems by their own right because they are made up of several parts serving different functions, which are interrelated. From the systems perspective school management involves managing and solving problems in each part of the organizations especially those related to service delivery but doing so with the understanding that actions taken in one part of the organization affect other parts of the organization. For instance implementing a solution to a problem on a school's service delivery is likely to affect other aspects of the school such as tuition facilities, physical facilities, and other finance tasks (Simmons, 2000).

1.13 Human Capital Theory

This study is based on the human capital theory which was proponent by Arthur Lewis (1954); the theory is the most influential economic theory of Western education, setting the framework of government policies since the early 1960's. It is seen increasingly as a key determinant of economic performance. The theory assumes the following key strategy in determining economic

performance that has employed a conception of individuals , human capital and various metaphors such as ‘technological change’, ‘research’, ‘innovation’, ‘productivity’, ‘education’, and ‘competitiveness’.

The concept of human capital refers to the fact that human beings invest in themselves through education and training. As a result of this, the school management is able to improve on its management strategies through quality leadership in schools in order to alleviate budgetary challenges (Nyamasege, 2013).

The theory is criticised where the concept of human capital can be infinitely elastic, including unmeasurable variables such as personal character or connections with insiders (via family or fraternity). This theory has had a significant share of study in the field proving that wages can be higher for employees on aspects other than human capital. Some variables that have been identified in the literature of the past few decades include, gender and nativity wage differentials, discrimination in the work place, and socioeconomic status.

According to Nyamasege, (2013), quality management strategies used by secondary school principals enables schools to adopt production processes based on three main techniques which are guided by the purpose for which they are used. They include cost benefit analysis, cost effective analysis and cost function analysis. Public boarding secondary schools in Nandi Central Sub County can apply this cost benefit analysis technique that analyzes the profitability of the firm. Cost effective analysis, analyses a firm based on the decision regarding the most effective technology to use, the technique that produces maximum output at minimum cost. Cost function analysis is a technique used to assess the extent to which resources in schools are utilized. This

study considers these strategies to cope up with increased expenditures in public boarding secondary schools in Nandi Central Sub County.

1.14 Operational Definitions of Key Terms

The following terms was used in this study to imply:

Administrative functions: From the study it consists of the performance or management of business operations and thus the making or implementing of a major decision, which includes organizing people and resources efficiently so as to direct activities toward common goals.

Alternative source of financing: It referred to finding other ways of getting funds in order to gap the scarce resources.

Austerity measures: it refers to official action taken by the principal to curbing educational expenditure while ensuring maximum benefits of scarce educational resources such as fiscal resources, material resources and personnel within limits of the contained economic conditions.

Budget Constraints: From the study it refers to inability of the school budget to meet its targets.

Expenditures: all amounts of money paid out by a school system, net of recoveries and other correcting transactions.

Income generating activities: used to describe an investment or business activity that makes money.

Priotization of projects: from the study it describes as putting more emphasis on most important projects such as building more classrooms, buying of books and Construction of laboratories

Service delivery is a component of business that defines the interaction between providers and clients where the provider offers a service, whether

that of information or a task, and the client either finds value or loses value as a result.

Stakeholders: Refers to individuals or groups who have an interest in the schools and includes parents, suppliers, education officials, debtors and the community.

Utilization of available resources: from the study it will refer to making use of existing facilities to generate more income to the schools.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter was devoted to a review of related literature on austerity measures adopted by principals on service delivery in public secondary schools. The literature relevant to this study is derived from books, journals, approved internet materials, research reports and it is done under the following sub-topics:- adoption of income generating activities on service delivery, utilization of available resources on service delivery, Influence of prioritization of projects on service delivery , alternative sourcing of finance on service delivery and knowledge gap.

2.2.1 Income Generating Activities

Income generation takes many forms. Originally it was a term used only by economists to explain the intricacies of a nation's economy. However, it is now quite widely used to cover a range of productive activities by people in the community. Income generation simply means gaining or increasing income. There are three ways that income can be generated. Firstly, income generation does not always mean the immediate getting of money, although in the end we use money to place a measurable value on the goods and services people produce. An example of income generation which does not lead to getting money would be a situation where a productive person produces enough food to feed himself or herself and the family. Skills have been used to meet immediate needs and thus savings have been achieved. A money value can be placed on the food produced and so the food can be seen as income (UNESCO, 1993).

Income generation implies projects initiated by institutions to raise income for the institutions expenditures. These include agricultural projects, hiring out idle resources and rendering services

like part-time academic programmes. Institutions have earned a lot of money from these projects including educational projects part time academic programmes in higher institutions. Currently, parallel programmes have contributed the lion's share of the income earned from IGA. The income goes a long way in boosting the teaching-learning process in these institutions as they are able to construct classrooms as well as purchase equipment and materials for use in laboratories (Olembo, 2012).

According to Boss (2016) there are many institutional spending factors that contribute to provision of tuition services including: capital construction costs, technological and service improvements, laboratory and library equipment. While these and other factors increase operational costs that require more revenue, a recent analysis shows that spending growth at public boarding secondary schools has increased tremendously. Therefore, a large increase in expenditure of service delivery (the cost of educating a student plus general spending) is not the primary reason for tuition (price) increases. A closer analysis of service delivery in secondary schools by the Ministry of Education Science and Technology shows that from 1992/93 -1996/97 fiscal periods, the total expenditure in education service delivery experienced a decline. Since the implementation of SAPs through cost sharing, the government expenditure allocation to education that stood at 18% of total expenditure in 1988/89 declined to 6.9% by 1991/92 (a reduction by 62%) and stood at only 7.3% by 1996/97 (World Bank, government of Kenya, 1996, Abagi, 2017). The consequences have included lack of equipment, teaching materials and other operation and maintenance expenditure outlays that are important for the development of the education sector.

In 2008, the government of Kenya started offering free tuition services in all public secondary schools, the government started to pay for tuition fees. However still, not everything was

provided thus increasing the tuition expenditure in these schools. In boarding schools the situation is not any better as parents and beneficiaries were still to provide boarding facilities like construction of dining halls, providing furniture, pay boarding and uniform fees and other equipment needed (Republic of Kenya, 2008). It was the government's policy that a number of boarding schools were to be maintained throughout the country so as to provide conducive environment for learners from disadvantaged backgrounds besides providing ground for the young people from various parts of the country to mix for national cohesion (Republic of Kenya, 2009).

The principals of public boarding secondary schools are responsible to be keen on the raising expenditure on provision of tuition services of secondary school (Aoki et al., 2012) .The government and all other stakeholders look upon the Head teachers for effective implementation of any program introduced at this level. Free tuition secondary Education is such a program that was introduced and it is the responsibility of the Head teachers to ensure that it is effectively implemented on the ground. Free secondary Education has opportunities and presents great challenges to Head teachers as it is not adequate to gather for all the tuition services.

The results of increasing expenditure in provision of tuition services in secondary education are reflected in overall deterioration of education outcomes caused by lack of laboratory equipment, lack of books and reduced library facilities. The government's commitment to provide quality education to its citizens is well articulated in various policy documents including Sessional paper No 1 of 2005 and GoK's .The development of a secondary sub sector strategy is out lined in KESSP and it is a tool of operationalizing the government policies contained in the Sessional paper No I of 2005 in regard to secondary education in the country.

As the country focuses on achieving the goals set in vision 2030, the relevance of the tuition expenditure becomes a very pertinent issue which must be addressed at all levels of education (Mangoa, 2009). The implementation of the secondary strategy is a responsibility for all Head teachers and it is hoped that the various stakeholders will play their respective roles to enable the government enhance access to quality secondary education. Prudent management of resources at the school level and the adherence to the set financial regulations is mandatory if the strategy is to achieve the desired results. It is important that the sub sector remains affordable (Olembo, 2012).

With the successful implementation of the secondary strategy to curb increased tuition expenditure, the quality and management of secondary education will be improved through in-service training and provision of the required teaching and learning materials. Rumberger & Palardy (2015). The modification of the curriculum will help in making it more responsive to the learners' needs as well as the country's labour market requirements in line with the pillars of vision 2030.

Since the late 1980s, household contribution to secondary education has increased considerably. It is estimated that about 56 percent of the Kenyans live below the poverty line. There is an increasing trend for many households to opt out of secondary education largely because it is unaffordable. Affluent households however enroll their children in the few, more established secondary schools that have managed to maintain a measure of quality. It is estimated that the average proportion of costs borne by households is about 46 percent for day schools; 63 percent for boarding schools and an overall average of about 57 percent for day and boarding schools (GoK's, 2005).

The opportunities and challenges in the implementation of Free Primary Education as ingrained in the In Sessional Paper No. 1 of 2004 on education and Training (Republic of Kenya, 2004), are still a matter of utter concern to educationists. In all public secondary schools, Head teachers like in any other parts of the country are supposed to implement in cutting the secondary school cost. (Ominde, RoK, 2014).

2.2.2 Utilization of Available Resources

Education is the cornerstone of economic growth and social development. It is a principal means of improving the welfare of individuals and secondary school education is the foundation (World bank, 1995). Expansion and success of education relies on development of infrastructural services which affects education access, contributes to quality learning environment and student achievement (Crampton, 2003).

The Ministry of Education in Kenya has come up with safety standards manual for schools in Kenya (MoE, 2005). This emphasizes the importance of complying with education act (Cap 211) and public health act (Cap 242). The manual discusses size and number of physical infrastructure for resistance and recommends the need for sufficiency. According to this acts physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users.

Provision of quality education and training has been a critical issue in Kenya since independence. This has been generally due to the increasing demand for more educational opportunities by the growing population which in turn increases school expenditure on

infrastructure (Abagi, 2017). This calls for great investment in Education, especially its physical infrastructure. The United Nations Educational, Scientific and Cultural Organization monitoring report on attainment of Millennium Development Goals (MDGs), described infrastructure expenditure as a non-negligible cost of achieving Education for All and MDGs (UNESCO, 2003). The importance of infrastructure cannot be gainsaid. If infrastructure expenditure is not sufficient or not maintained, there will be obstacles in education access and participation especially to secondary school principals who will have to cope up with this increasing expenditure.

Secondary school principals should adopt efficient strategies for the successful implementation of the education policies. The Strategies, according to Ojowu (2018), should be a systematic and comprehensive analytical process that sees the internal and external environment of an institution and provides viable alternatives to funding of education. Uvah (2014) identified the functionality of strategic planning as the economy and prudent management, survival competition, national development, funding opportunities, environmental changes and financial autonomy. The requirement of strategic planning for consideration of sources of funds for plan implementation encourages an institution to reposition itself to diversify the sources of funding and generate more revenue for its operation. It also encourages the institution to be more cost conscious, focused and efficient. It is recommended, therefore, that each of the three tiers of government should establish a directorate of strategic planning. In order to increase access, maintain standard of educational quality and ensure institutional stability, secondary education must diversify its financial bases, particularly the infrastructural expenditure (Aoki 2012).

According to Boss (2016), the increasing expenditure on development of infrastructural services could be met by introducing or increasing users' charges, such as fees at the tertiary level of

education a typical bill for public secondary schools. School principals require greater autonomy from government, particularly in infrastructural expenditure, if they are to become more entrepreneurial and provide the incentives necessary to encourage quality performance and efficient strategies to cope up with this rising expenditure.

2.2.3 Prioritization of Projects

Extracurricular activities in secondary schools are those activities that fall outside the normal curriculum of school and are performed by students. Extracurricular activities exist for all students. Over the past several years, principals of secondary schools have responded proactively to a difficult economic climate, seeking ways of funding curricular activities expenditures, as well as measures to increase revenues (Rumberger and Palardy 2015).

There is a large expense associated with funding of extra-curricular opportunities for students. The government of Kenya through the ministry of education administers Extra-Curricular Activity Participation Fees. These fees offset a small portion of the costs associated with transportation, tournament entry fees, and coaching/sponsor stipends thus leaving Head teachers with a challenge of providing the other expenses which would increase the budgetary expenditure on extracurricular activities (Aoki, 2012).

In the United States almost all middle level and high schools offer a number of student activities ranging from athletics, music and drama, clubs and societies, service learning and student councils. Some activities also include core subjects like mathematics and English when students attend them for remediation purposes. Although often termed “extracurricular” activities, they provide students with important development opportunities not always afforded during the regular school, (Rumberger and Palardy, 2015).

According to Boss (2016), Funding for these school-sponsored activities has traditionally been generated through a variety of sources, including regular budget allocations, fundraising events, and revenues from vending machines. With shrinking budgets and a trend away from vending machines, school principals have been struggling with the increasing expenditures to keep activities available to students and have tended to make up for shortfalls by charging fees in order to maintain these offerings.

The major challenges facing secondary school education in Kenya include: the role of Head teachers to cope up with increased extracurricular expenditure .This has led to unsatisfactory levels of access and participation of students in extracurricular activities. Ominde, (2014), Rising extracurricular expenditure, poverty incidence and declining government financing are to a large extent, associated with the cost sharing policy introduced in 1988 that has had negative Influence on secondary education in terms of resources, quality and financing. Most of the resources are spent on recurrent expenditure items dominated by teachers remunerations, while development allocation constitutes less than 5 per cent (in 2001 the proportion was 2 per cent).

2.2.4 Alternative Sourcing of Finance

The World Bank (2005) views private funding as a major source of financing education. It asserts that against a back drop of growing demand for higher education and insufficient public supply, some governments and institutions should introduce fees as a form of households' obligations in meeting educational expenses. In addition, it indicates that the private higher education sector has grown rapidly and public higher education institutions have diversified their resources of funding to accompany the major changes in financing. Some governments have developed students' loans and other assistance progress. Options for financing education in other countries include grants scholarship bursaries etc.; traditional loans human capital contracts

income contingent, graduate tax and learning tax credit e.tc. The bursaries and scholarships are commonly used in secondary education. In Burkina Faso (KIPPRA 2006) has it that partnerships are nurtured with private sector through distance learning targeted vouchers accessible to private and public schools; household subsidizes construction of low cost secondary schools in underserved areas.

Achola (in Kosgei, 2011), studied the financing of secondary schools in Kenya and found out that the expenditure for provision of accommodation services on education were too high and unrealistic and recommends for urgent need for community and local governments to finance the supply of education with a very limited support from the central government. The study fails to recognize the fact that education is a human right and it is the responsibility of the government to ensure that her citizens get access to basic education. The study also fails to suggest ways of putting the existing finances into better use by the institutions. The study also fails to state the unit cost of secondary education in Kenya.

According to Boss (2016), Kenya Parliamentary Committee on Education called for the reduction of the development levy of Kshs 2,000 per student per year to relieve parents of the burden and make secondary education affordable to all (Sunday Nation, 23rd July 2006). The 4,000 plus Head teachers of secondary schools requested the government to introduce free secondary education. Schools were owed Kshs. 12 billion and they threatened to stop releasing students 'certificates. They demanded for a subsidy of secondary education by providing free tuition and paying salaries for non-teaching staff. This would leave only the cost of boarding to be funded by parents.

The other option to ease the problem of fees was to levy a 2% education levy on government taxes (Siringi and Mbabazi, 2016). A reduction in school fees at the secondary level would greatly improve access to secondary schools particularly in rural areas and for children of the low-income group. Given this background, it was important to find out the cost effective measures necessary to reduce operational costs of secondary education.

Aoki *et al.*, (2012) the government's objectives and policies during the plan period 1997 to 2001 were related to increasing enrolment and completion rates, streamlining financing of education and improving the relevance of education within the context of industrialization (Republic of Kenya, 1997). To do this the government was to shift more resources from post primary to primary education, remove subsidies to boarding services not directly related to education, introduce a ceiling on government subsidies per student and make government support be student-based and not school-based.

Rumberger and Palardy (2015), the government operates a bursary scheme at the secondary level through the Ministry of Education, Science and Technology. This is within the auspices of the Social Dimensions of Development Programme targeting the poor and vulnerable groups. However, several issues have emerged that make this scheme quite ineffective and inefficient. Bursary funds are not enough for all eligible needy students. The eighteen national schools get 5% of the total bursary funds in any fiscal year. The other schools get funds in proportion to the school size, in terms of student enrolment and without reference to boarding status and whether the school is boys, girls or mixed. Secondly, the allocation per province has varied according to perceived economic well-being of the province. The provinces located in economically marginal Arid and Semi-Arid Lands (ASAL regions) where most communities are poor and vulnerable have got higher proportions.

The bursaries programme provides assistance to children from poor backgrounds and thus enhances access, ensures retention and reduces disparities and inequalities in the provision of secondary school education (Ominde, RoK, 2014). In particular, the bursaries are targeted to students living under difficult conditions and Most Vulnerable Children (MVCs). These include orphans, the girl child and children from poor families, slum areas, pockets of poverty in high potential areas, and ASAL districts. At constituency level, the bursary fund is managed by a Constituency Bursary Management Committee (CBMC) in consultation with the MOE in accordance with the set guidelines. The sector increased bursary allocation from Kshs.770 million in 2004/05 to Kshs.800 million in 2005/06. In order to ensure access and retention the Government has waived fees in all public day secondary schools with effect from January 2008.

The Government is supporting schools to improve teaching and learning materials, including laboratory/science equipment; under a targeted support programme. During 2003/04 a total of Kshs.150 million was allocated for science equipment/laboratory. Aoki *et al.*, (2012), this amount was increased to Kshs.160 million and Kshs.170 million in 2004/05 and 2005/06 respectively. In 2006/07 the actual expenditure was Kshs.160 million while the printed estimate for 2007/08 has an allocation of Kshs.165 million. However, this amount is inadequate given that the number of needy schools is high, (Bray, 2000). A total of Kshs.40 million was provided to all public secondary schools in the 28 ASALs districts based on student enrolments during year 2004/05. As part of an affirmative action, secondary schools in Mandera, Wajir, Ijara, Garissa, Moyale, Marsabit and Isiolo have been given an enhanced allocation so that the minimum amount per school in these districts is Kshs. 100,000 regardless of student enrolment. All the secondary schools in the 28 ASALs districts received ASALs grants amounting to Kshs.70 million in November 2005 (Dibski, 2003).

2.3 Knowledge Gap

Secondary school expenditure is spent on indirect and direct services namely tuition services, infrastructural services, extra curricula services and accommodation services and this becomes the critical element in secondary school education financing. A number of studies have been done on increased expenditures in public boarding secondary schools however, gaps have been identified which this study seeks to fill.

Orodho and Njeru (2013), did a study on the Influence of increased educational expenses on syllabus coverage in secondary schools. They conclude that there is increased educational expenses in schools, which can lead to failure to cover the syllabus during the normal school hours. This left gaps on the strategies adopted by school principals to cope up with this rising costs.

Hanold (2012) did a study on educational expenses and noted that there has been a massive increase in spending in education all over the world. This has been attributed by inflation, the need for more sophisticated equipment such as computers, laboratory equipment, home science materials and projectors and the ever-growing demand for education which has led to increase in cost of education. Solomon, Benjamin and Zachariah (2004) did a study on determination of unit cost among secondary schools in Kenya: a case of Nandi North District, Kenya. It dealt with variable costs and unit cost of secondary schools, this left gaps on the strategies adopted by principals to cope up with rising tuition expenditure, infrastructural expenditure, extracurricular expenditure and boarding expenditure.

Ngaira (2013) did a study on the effectiveness of physical infrastructure funding on increased access to education in public primary schools in Sabatia District, Vihiga County, this left gaps

because it didn't consider the tuition expenditure, extracurricular expenditure and boarding expenditure, therefore the knowledge gap exists which the study sought to fill. In conclusion, the proposed study has many gaps to fill by finding out the influence of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County.

2.4 Summary

The foregoing literature review embodied some studies that depicted the position of influence of austerity measures adopted by principals on service delivery in public secondary schools.

Ominde, RoK (2014) findings shows that large schools secure maximum economies of building and equipment that full use certain space that can only be obtained where there are three or four streams.

Kosgei et al., (2014) add that recurrent expenditure per pupil had an inverse relationship with the size of the school as increase in size of the school triggers reduction in recurrent expenditure and hence the school realizes substantial amount of savings. Rumberger and Palardy (2015) say that large schools are more effective in improving student learning than mid-sized schools. However, large schools have significantly lower test scores than medium sized or small schools. From the reviewed studies none of it was carried in Nandi Central Sub County and therefore much need to be done.

2.5 Critical Review

Aoki *et al.*, (2012) suggest the use of private sector to expand education coverage through NGO or for profit private providers as this can lead to better quality education by mobilizing available management capacity, providing more choices for families and increasing competition among

providers as in Peru. Otherwise, Clegg, Bregman and Ottovanger (2018) show that the existence of private schools is strength of the existing system as it is an effective cost sharing mechanism.

According to Boss (2016), in Springfield school, reduction in cost is achieved by avoiding filling position of retired non-teaching staff unless felt necessary after retirements or resignation or unless it was deemed essential. Otherwise, it is advisable not to fill but reduce in hours or make positions part time when full time personnel leave. On electricity account and water bill, (Ibid) puts that they can be reduced by switching off electricity suppliers and concerted conservation methods.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, description of research area, the study population along with the sample size and sampling procedures. Additionally, it provides a description of the research tools to be used along with the requisite validity and reliability considerations; data collection procedures including setting the boundaries for the study, it also presents how data was analyzed in view of the design of the study. Finally, the ethical issues and confidentiality aspects were discussed.

3.2 Research Design

Orodho (2005) defines research design as the scheme, outline or plan that is used to generate answers to research problem. Kothari (2009) argues that a research design is a plan, structure or strategies or investigation conceived so as to obtain answers to research questions and to control variants. The research design provided a concrete framework for a study.

A survey research design was used in this study. A survey research design allowed researcher to gather information, summarize, interpret and present the data. According to Mugenda and Mugenda (1999), a survey study generally aimed to provide insight into a particular situation and often stresses the experiences and interpretations of those involved. Often it generates new understandings, explanations or hypotheses. However, it does not usually claim representativeness and researcher should be careful not to over-generalize. Descriptive studies were essential in many situations especially when using qualitative data in understanding the

phenomena. The study being a descriptive survey sought to describe and interpret various situations and depict the participants in an accurate way.

3.3 Study Area

The study was carried out in Nandi Central Sub County, Nandi County, Kenya. The Sub County borders Nandi North sub county to the North, Western province to the West, Nandi South Sub County to the South and Nandi East Sub County to the East. The Educational head quarter is at Kapsabet. The sub county is made up of four educational divisions namely: Kapsabet, Emgwen, Kosirai and Kilibwoni. The county is densely populated with rapidly growing population. The central part is an agriculturally high potential area with high rainfall of about 3000mm per year, where tea is the major cash crop while the remaining parts engage in maize growing and livestock rearing. The rest of the population engage in commercial activities such as trade or employed in government and private firms.

3.4 Target Population

Target population is the population marked for the study and it refers to all the units of whatever nature that a researcher intends to study. Mugenda and Mugenda (2003) defines target population as a process to which a researcher wants to generate the results of the study. The target population for this study were the public secondary schools in Nandi Central Sub-county. According to the District Education Office (D.E.O) records (2017), the Sub-county has a total of 65 secondary schools of which 36 are public boarding schools. Nine of 36 are girls' schools; five are boys' schools and twenty two mixed schools. Two of the thirty six schools are National schools; seven are county schools while the rest are Sub-county schools.

The target population were 36 principals, 204 heads of departments and 132 board of management (B.O.M) in the 36 public secondary schools in Nandi Central sub-county. They total up to 372 as shown in the table below:-

Table 3.1 Target Population

Zones	Head teachers	HODSs'	BOM	Total
Kapsabet	11	64	46	121
Emgwen	10	56	36	102
Kosirai	8	45	24	77
Kilibwoni	7	39	30	76
TOTALS	36	204	132	372

Source: District Education Office (D.E.O) records, Nandi Central (2017)

3.5 Sample Size and Sampling Procedure

For the purpose of getting a representative sample, the researcher clustered the secondary schools into four zones; Kapsabet, Emgwen, Kosirai and Kilibwoni. A simple random sample is a useful blend of randomization and categorization, which enables both a quantitative and qualitative process of research to be undertaken (Cohen, 2003). According to Mugenda and Mugenda (2003), for a population of less than 100, 100% of the population is taken to calculate the sample size, for a population of between 100 to 1,000, 30% of the population is taken, for a population of 1,000 – 10,000, 10% of the target population is taken to represent the target population and

finally for any target population above 10,000, 1% is taken to calculate the sample size to be employed in the study.

Simple random sampling was therefore used to select 30% of the required schools, all the principals of the selected schools were part of the respondents, because they are actively involved in strategic planning .Teachers from the sampled schools qualified as respondents arriving at a sample of 61 heads of departments, 40 BOM and 10 Principals. The sample size was therefore total to 111 respondents. According to Crewswell (2008), simple random sampling ensures that each individual were of the same probability of being chosen at any given stage of sampling process to avoid bias.

Principals of each school were selected purposely because they have required information concerning Austerity measures to cope up with increased cost on service delivery in schools. Mugenda and Mugenda (1999) observed that purposive sampling technique allowed the researcher to use cases that have the required information with respect to the objectives of the study.

Table 3.2: Sample Size

Zones	Head teachers	HODSs'	BOM	Total
Kapsabet	3	18	13	34
Emgwen	3	17	11	31
Kosirai	2	14	7	23
Kilibwoni	2	12	9	23
TOTALS	10	61	40	111

Source: District Education Office (D.E.O) records, Nandi Central (2017)

3.6 Data collection instruments

The data collection instruments are tools used to collect information from the intended target population (sample size). The data collection instruments used in this study were developed by the researcher. The study used questionnaires and interview guide to collect data.

3.6.1 Questionnaire

The researcher used self-administered questionnaires for collecting data. The questionnaires are important for the study because respondents are provided with questions for each construct and a lot of information can be collected over a short period of time (Mugenda and Mugenda, 2003). Questionnaires have been designed to poll the opinions of the respondents with respect to: strategies adopted by principals to cope with increasing expenditures in public secondary

schools. The questionnaire consisted of open and closed ended questions that allowed the researcher to obtain extra information from the respondents.

The structured questionnaire contained both open ended and closed ended questions. The closed ended questions provided data that was kind of easy in coding while open ended ones helped in gathering wide and free opinions on the topic and the objectives of study from the respondents. The questionnaire was preferred because the population under study is largely literate hence could understand the questions posed.

3.6.2 Interview Guide

The study employed the use of interviews as methods of collecting data. This method was specifically used for collecting information on the study from the BOM so as to seek information on what the researcher cannot get from the principals and HODSs'. Structured and semi-structured interview questions were designed for this exercise. The reason for use of interviews is that they are easy to administer since the questions are prepared in advance. They also allow a great deal of information to be gathered in a short period of time. Interviews also eliminate many sources of bias common to other instruments like observations. In addition, interviews help seek clarification through probing.

3.7. Piloting of research instruments

According to Murray (2003), piloting is important because it helps to identify ambiguities of the items and vague questions for improvement. A pilot study was conducted before the main study. For this purpose, three (3) schools with similar characteristics to those under study but those that were not included in the sample that was selected.

3.8 Validity of Research Instruments

Best & Kahn (1998) defines validity as the degree to which a test measures what it purports to. Gay (1992) observes that validity is the extent to which a test measures what it is supposed to measure. There are several types of validity. This study used content validity. Content validity is the degree to which the content of the tests are related to the traits for which it was designed to measure. A panel of experts in the field judged its adequacy and thereby assess the validity of the research instruments (Best and Kahn, 1998). Since content validity is determined by expert judgment, the researcher's supervisors were relied upon to assess the validity of the instrument.

3.9 Reliability of Research Instruments

Reliability refers to the consistency that an instrument demonstrates when applied repeatedly under similar conditions (Kombo & Tromp, 2006). According to Orodho (2004), reliability of measurements concerns the degree to which a particular measure procedure gives equivalent results over a number of repeated trials. A pilot study was conducted in Nandi North as 20 questionnaires were distributed to head teachers and HODs. The researcher tested reliability of the research instrument using the split-half reliability. The test items were divided into two halves in which all odd items were in one half and all even items in the other half. A computation of each subject's score on the two halves was done and the two set scores correlated and corrected using the spearman-brown correlation formula. According to Nsubuga (2000), correlation coefficient of above 0.8 indicates acceptable reliability of an instrument. The correlation of test-retest data obtained from the pilot study gave a strong positive correlation coefficients for each questionnaire that was greater than 0.657. Hence, the questionnaires used had acceptable levels of reliability.

3.10 Data Collection Procedure

The researcher applied for an authorization letter with the County of Science and Technology Department of Education in Nandi Central Sub County. The researcher then reported to the County Commissioner, Nandi Central Sub County for notification of her purpose and presence in order to seek authority to conduct the research. The researcher visited the sampled schools with a letter of introduction from the National Commission for Science, Technology and Innovation (NACOSTI), and introductory letter. The questionnaires were administered to principals and HODSs through drop and pick so as to notify the respondents with a brief explanation on their purpose and importance. An interview schedule was carried out by the researcher. Once the instruments were complete the researcher proceeded to analyze and present them appropriately.

3.11 Data Analysis

The data collected was checked for completeness, errors and any omissions. After that cleaning, the data collected was coded and entered into the computer for analysis. The data generated from the open ended questions was organized into patterns, percentages and tabulation through content analysis. Since the analysis required the use of computer, the spread sheet was used. The data was then entered in the computer. Quantitative data derived from the demographic section and other closed questions was analyzed using descriptive statistics. Qualitative data generated from the open-ended questions in research instruments was organized in themes and patterns, categorized through content analysis. Descriptive statistics included measures of central tendency that is mean, mode and median. Data was presented in form of tables and charts.

3.12 Ethical Considerations

Permission to carry out the research was asked from relevant authorities and respondents who participated in the study. The nature and purpose for the research were explained to the respondents by the researcher. The researcher respected the individual's rights in order to safeguard their personal integrity. The researcher assured the respondents of their confidentiality and unanimity. Consequently, research permit was obtained from the education office in Nandi Central Sub County and an informed consent from the respondents were sought. No names or personal identification numbers were reflected on the questionnaires except the numbering for questionnaires which is for purposes of identification of data during data editing.

CHAPTER FOUR

4.0 DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter is divided into five major sections, to establish the adoption of income generating activities on service delivery in public secondary schools, to examine the utilization of available resources on service delivery in public secondary schools, to determine the influence of prioritization of projects on service delivery in public secondary schools and to find out the alternative sourcing of finance on service delivery in public secondary schools.

4.2 General Information

It was necessary to seek generalization in order to build information and assess the Influence of Austerity measures adopted on service delivery in public secondary schools in Nandi central sub-county, Kenya.

4.2.1 Response Rate

This information was collected from Questionnaires. Out of the 71 questionnaires administered, the researcher managed to get back 71 and hence the return rate was 100%, any response of 50% and above is adequate for analysis thus 100% was acceptable by any standards, Babbie (2002). This was made possible by the use of research assistants who made understanding to the respondents.

Table 4.1 Response Rate

Target group	Questionnaire issued	Questionnaire returned	Percentage
Questionnaire	71	71	100

4.2.2 Reliability of Instrument

Reliability is concerned with precision and accuracy, any random influence that tends to make the measurement different from occasions to occasion is a source of error unless the differences are such that they maximize systematic variance (De Vaus, 2002).

Table 4.2 Reliability Test

Measures	Spearman-brown	No. Of Items	Comment
Income generating activities	0.903	12	Acceptable
Utilization of existing resources	0.924	9	Acceptable
Priotization of projects	0.923	5	Acceptable
Alternative source	0.962	6	Acceptable

From the table 4.2; Spearman-brown was used to assess the reliability coefficient of the research instruments. The reliability test of any value which is above 0.8 was considered appropriate threshold. The alpha value for all instruments were generated which were above the recommended measure of 0.80 therefore the instrument was considered reliable for the study.

4.3 Income Generating Activities on Service Delivery

This section aimed at observing, describing and analyzing each measure that can be used to generate more income on service delivery.

4.3.1 Measures that school can use to cope up with cost of providing tuition facilities.

The study sought to find out from head teachers and HODS on measures that school can use to cope up with cost of providing tuition facilities in public secondary schools in Nandi Central Sub-County. The results of these findings were as shown in table 4.3

Table 4.3 Measures to Cope Up With Cost of Providing Tuition Facilities

Measures	Head teachers		Head of Department	
	F	%	F	%
Installation of Posho mills	3	30.0	18	29.7
Engage in agricultural activities	2	20.0	7	10.8
Starting up a bakery business	1	10.0	7	11.7
Running a canteen	1	10.0	1	2.7
Application for annual CDF Support /grants	3	30.0	17	27.1
Donor assistance	0	0.0	11	18
Mean		2.9	58	3.3934
Totals	10	100	61	100

The study revealed that majority of the respondents showed that application for annual CDF Support /grants that comprised of 30.0%, installation of Posho mills had 30.0%, those engaging in agricultural activities at 20%, those involved in starting up a bakery business showed 10.0%, running a canteen as an income generating activity comprised of 10.0%, and finally the school did not receive donor assistance.

HODS further found out that installation of Posho mills comprised of 29.7%, those engaging in agricultural activities comprised of 10.8%, those involved in starting up a bakery business comprised of 11.7%, running a canteen as an income generating activity comprised of 2.7%, CDF application yearly comprised of 27.1% and finally donor assistance comprised of 18%.

From the above findings it implied that application for annual CDF Support /grants and installation of Posho mills were the main activities that could have been used by secondary school to generate more income in order to cope up with raising costs.

The principals of public boarding secondary schools are responsible to be keen on the raising expenditure on provision of tuition services of secondary school .The government and all other stakeholders look upon the Head teachers for effective implementation of any program introduced at this level. Free tuition secondary Education is such a program that was introduced and it is the responsibility of the Head teachers to ensure that it is effectively implemented on the ground. Free secondary Education has opportunities and presents great challenges to Head teachers as it is not adequate to gather for all the tuition services. These findings concurred with Olembo, (2012) who found out prudent management of resources at the school level and the adherence to the set financial regulations is mandatory if the strategy is to achieve the desired results as it is important that the sub sector such as schools remains affordable in order to manage their costs.

4.3.2 Benefits that School Enjoys from the Tuition Fees Generated

The table 4.4 illustrates the benefits that school enjoy from the tuition fees generated in Nandi Central Sub- County. The response was generated from both the head teachers and Head of Departments, as shown below:

Table 4.4 Benefits that School Enjoys from the Tuition Fees Generated

Benefits	<u>Head teachers</u>		<u>Head of Departments</u>	
	F	%	F	%
Ability to organize educational trips	5	45.0	26	42.3
Avail adequate revision materials	2	22.5	15	25.2
Contests and symposiums attendance	1	13.5	7	10.8
Capacity to construct well equipped laboratories and workshops	1	9.0	8	11.7
Easy to pay debt	1	6.3	3	6.3
Will enable teachers to attend seminars and workshops easily	0	0	2	3.6
MEAN		2.1		2.2295
Total	10	100.0	61	100.0

Response from the Head teachers on the benefits that school Head teachers enjoy from the tuition fees generated in Nandi Central Sub- County revealed that, majority of the respondents indicated that they are able to organize educational trips which comprised of 45.0%, avail adequate learning and teaching materials such as textbooks comprising of 22.5%, contests and symposiums attendance having 13.5%, capacity to construct well equipped laboratories and workshops was at 9.0%, easy to pay debt comprised of 6.3% and finally enable teachers to attend seminars and workshops easily had no response.

Consequently, HODS were asked the benefits that school enjoy from the tuition fees generated in schools in Nandi Central Sub- County. The responses showed that they have ability to organize educational trips which comprised of 42.3%, avail adequate learning and teaching materials such as textbooks at 25.2%, contests and symposiums attendance with 10.8%, capacity to construct well equipped laboratories and workshops comprising 11.7%, easy to pay debt at 6.3% and finally 3.6% showed that teachers had attended seminars and workshops easily.

Both the head teachers and HODS indicated that by availing adequate revision materials and the ability to organize educational trips were the most benefits that the school had enjoyed from tuition fees.

These findings agree with Manga, (2015), the implementation of the secondary strategy is a responsibility of all Head teachers and it is hoped that the various stakeholders played their respective roles to enable the government enhance access to quality secondary education. Prudent management of resources at the school level and the adherence to the set financial regulations is mandatory if the strategy is to achieve the desired results.

4.4 Utilization of Available Resources on Service Delivery

The second objective sought to establish the influence of available resources on service delivery in public secondary schools.

4.4.1 School Team in Charge of Infrastructural Services

On utilization of available resources on service delivery, the study sought to find response from head teachers and HODs on schools having a team in charge of infrastructural services in Nandi Central Sub-County. The finding were as illustrated in figure 4.1

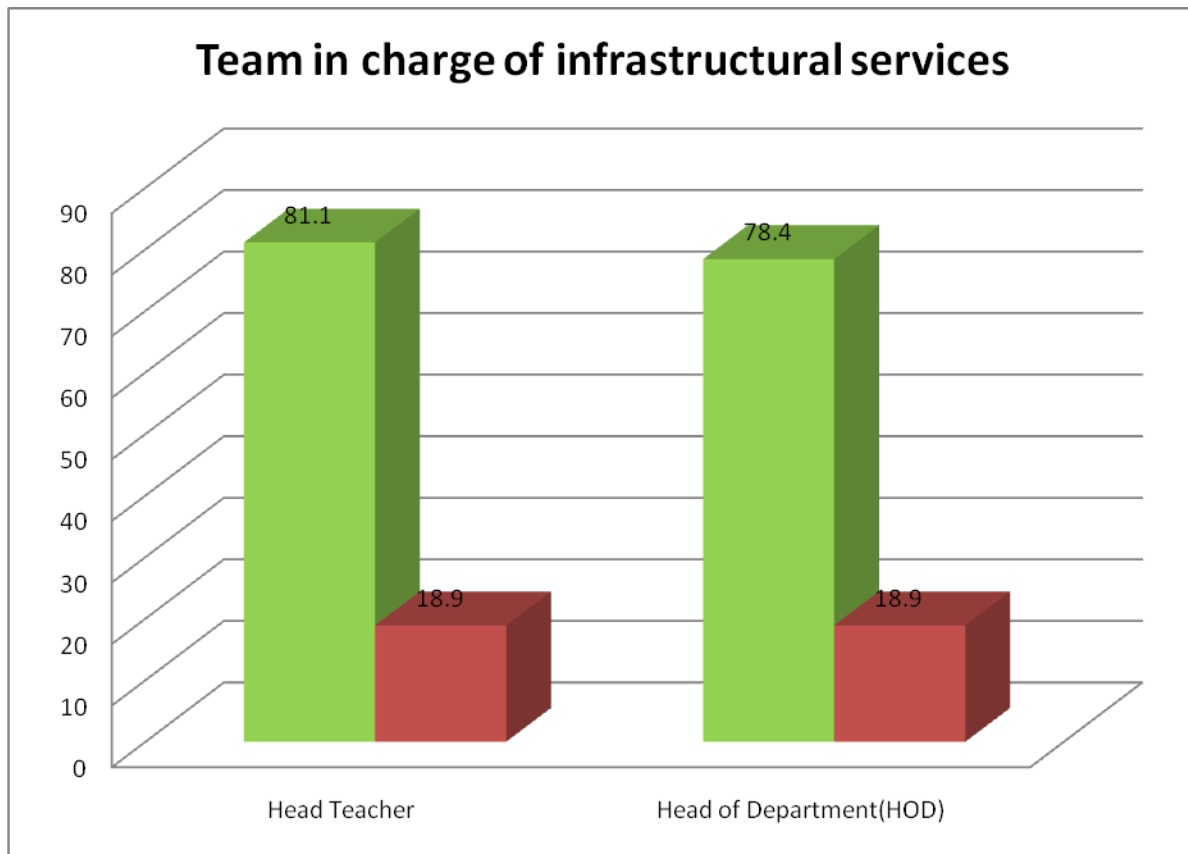


Figure 4.1 Teams in Charge of Infrastructural Services

From the figure above it is clear that majority of the respondents indicated that they have a team in charge of infrastructural services which comprised of 81.1%, while 18.9% indicated that they do not have a team in charge of infrastructural services.

Further the majority of HODs indicated that they had teams in charge of infrastructural services which comprised of 78.4%, while 18.9% indicated that they do not have a team in charge of infrastructural services.

This implied that the school had teams in charge of infrastructural services who were involved in planning and implementing all the activities of the school.

According to Abagi, (2017), physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary. Such structures are supposed to be appropriate, adequate and properly located devoid of any risks to users.

Provision of quality education and training has been a critical issue in Kenya since independence. This has been generally due to the increasing demand for more educational opportunities by the growing population which in turn increases school expenditure on infrastructure.

4.4.2 Member of the Team

The study sought to find out whether the Head teachers and HODs are members of the team

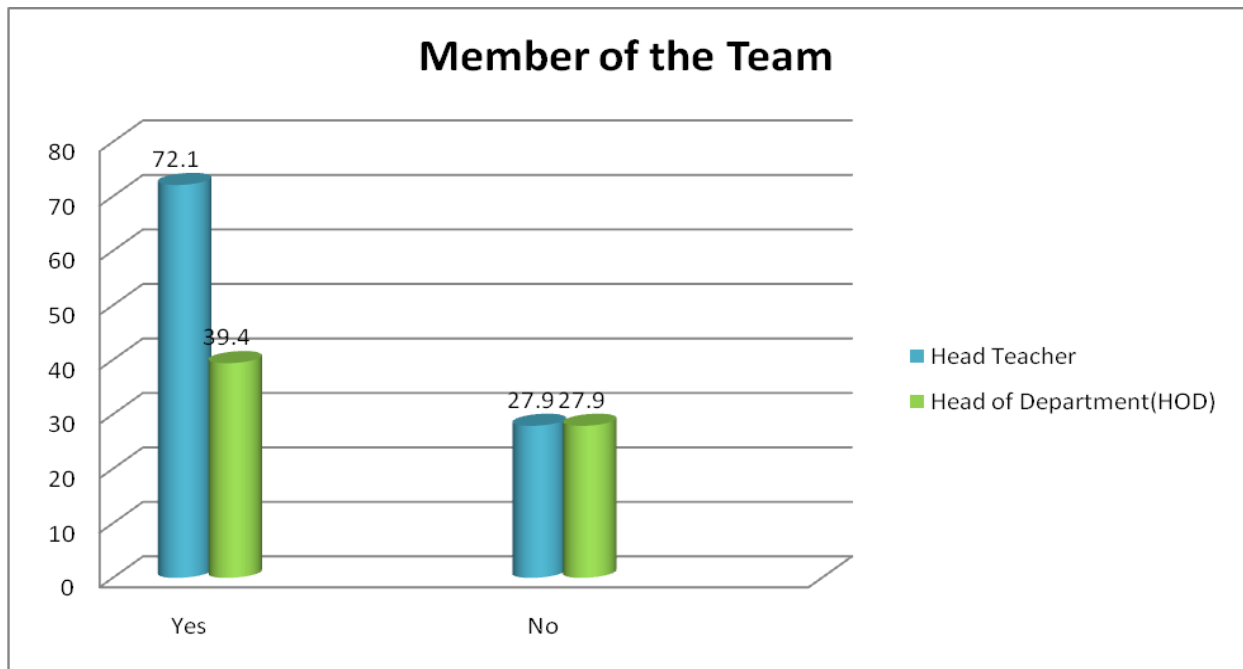


Figure 4.2: Member of the Team

Figure 4.2 above sought to find out whether the Head teacher is a member of the team in charge of the infrastructural services. The study findings revealed that the majority of the respondents indicated that the head teacher was involved as the member of the team and this comprised of 72.1% while 27.9% indicated that the Head teacher was not involved as the member of the team. On the other hand majority of HODs indicated that the HODs were at 69.4% while 27.9% indicated that the HODs were not members of the team.

This implied that Head teachers being the chief accounting officer were the first to know any rising cost that affect the schools. This would imply that the heavy effects of the cost sectors in the school would have significant influence on the way management operates and thus management would be required to formulate austerity measures to deal with the increased expenditure during their meetings. Bregman, & Stallmeister, (2002) noted that the successful implementation of the secondary strategy to curb increased tuition expenditure, the quality and management of secondary education will be improved through in-service training and provision of the required teaching and learning materials. The modification of the curriculum will help in making it more responsive to the learners' needs as well as the country's labour market requirements in line with the pillars of vision 2030.

4.4.3 How often Members meet to Budget for Infrastructural Service

Table 4.5 Budget for Infrastructural Service

Statements	Head teachers		Head of Department (HODS)	
	F	%	F	%
Occasionally	8	80	45	73.9
Rarely	2	20	16	26.1
Total	10	100.0	61	100.0

Both the Head teachers and Heads of Department (HODs) were asked on whether they met often to budget for infrastructural service. The study findings revealed that the majority of the respondents indicated that they occasionally meet to budget for infrastructural service which comprised of 80% for head teachers and 73.9% for HODs. 20% of the head teachers indicated that they met rarely while that of HODs was at 26.1%.

From the above responses it implies that cost of providing infrastructural service such as classrooms, laboratories and other expenses were still a challenge since most of the schools were dependent on the funds they received from the government which was not adequate to accommodate all the schools expenses.

These findings of the study are in concordance with the Dibski, (2003) who pointed out that many schools in the Sub-Saharan Africa are faced with challenges of financing their operations because of the low budgetary allocation and poor utilization of financial resources.

4.4.4 School Management Handling the Rising Cost of Providing Infrastructural Services

It was necessary in the study to find out how school management handles the rising cost of providing infrastructural services because this has a direct influence on effectiveness of services delivered in school.

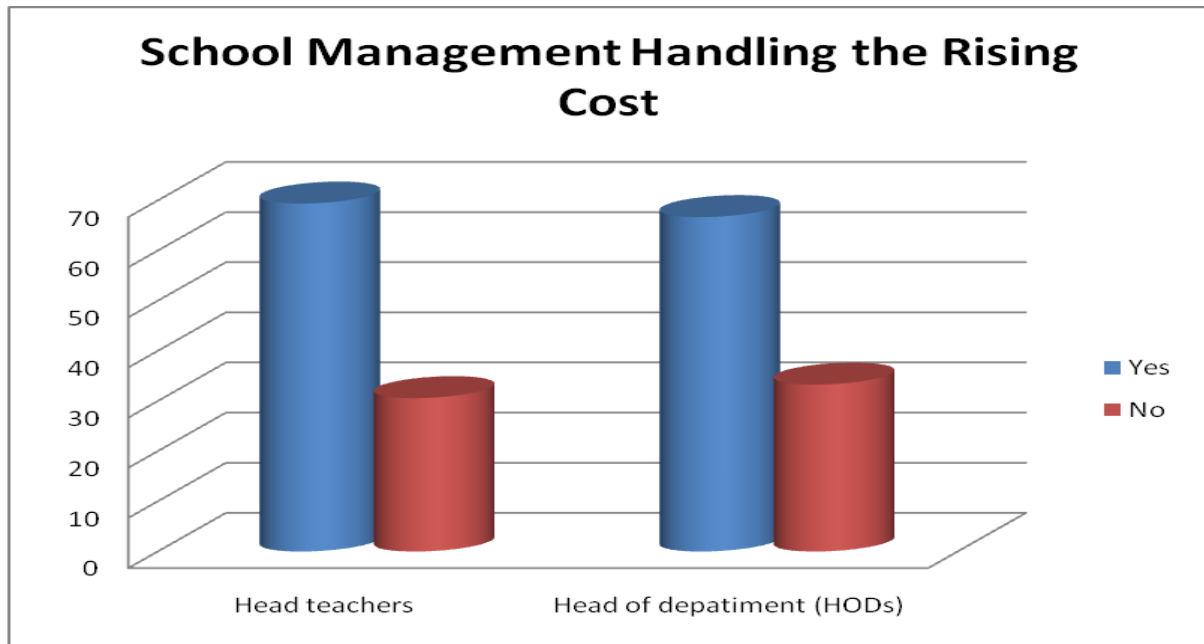


Figure 4.3: School Management Handling the Rising Cost

The study determined how the school management handles the rising cost of providing infrastructural services and the response from the head teachers and HODS on a comparative analysis were as follows: - 69.4% of head teachers and 66.7% of the HODS respondents indicated that the school management had handle the rising cost of providing infrastructural services through sourcing funds from Parents Teachers Association (PTA) and County Development Funds (CDF). On the other hand HODs response indicated that: - the school management did not handle the rising cost of providing infrastructural services which comprised 30.6% of head teachers and 33.3 % of HODs.

Secondary school principals should adopt efficient strategies for the successful implementation of the education policies. The Strategies, according to Ojowu (1998), should be a systematic and comprehensive analytical process that sees the internal and external environment of an institution and provides viable alternatives to funding of education. Uvah (2004) identified the functionality of strategic planning as the economy and prudent management, survival competition, national development, funding opportunities, environmental changes and financial autonomy.

4.4.5 Level of availability and adequacy of various facilities in the school

The study sought to find out the level of availability and adequacy of various school facilities in Nandi central Sub-County.

Table 4.6: Level of Availability and Adequacy of Various Facilities in the School

Statements	Respondents	Adequate	Inadequate	Total
Laboratory facilities	HODs	37(61%)	24(39%)	61(100%)
	Head teachers	6(60%)	4(40%)	10(100%)
Library facilities	HODs	35(72%)	17(28%)	61(100%)
	Head teachers	6(58%)	4(41%)	10(100%)
Water and Electricity	HODs	49(81%)	11(19%)	61(100%)
	Head teachers	8(79%)	2(21%)	10(100%)
Recreational Facilities	HODs	38(63%)	23(37%)	61(100%)
	Head teachers	6(60%)	4(40%)	10(100%)
Physical Condition of Classrooms	HODs	40(66%)	21(34%)	61(100%)
	Head teachers	6(56%)	4(42%)	10(100%)
Toilet Facilities	HODs	32(52%)	29(48%)	61(100%)
	Head teachers	6(60%)	4(40%)	10(100%)
Security/Environment	HODs	42(69%)	19(31%)	61(100%)
	Head teachers	6(61%)	4(39%)	10(100%)

From the finding it was necessary to assess the level of adequacy of laboratory facilities in Nandi central Sub-County which revealed that 61% of the HODs indicated adequate and 39% indicated inadequate. On the other hand majority of the respondents including 60% among the Head teachers indicated adequate and 37% showed inadequate.

On the level of adequacy of library facilities in Nandi central sub-county, the study findings revealed that majority of respondents including HODs indicated adequate which comprised of 72% while 28% of the respondents indicated inadequate. Whereas the Head teachers indicated adequate at 58 % and inadequate at 42%.

Social amenities are also very important to a school and because of that the study sought to find out the level of adequacy of water and electricity in Nandi central sub-county, the findings revealed that majority of HODs indicated adequate at 81% while 19% showed inadequate. The head teachers on the other hand showed adequate and inadequate at 79% and 21% respectively.

Furthermore the study sought to assess on the level of adequacy of recreational facilities in Nandi central sub-county and the study findings revealed that majority of respondents among the HODs indicated adequate which comprised of 63% while 37% of the respondents indicated inadequate. On the other hand 60 % of the Head teachers indicated adequate and 40% indicated inadequate.

The level of adequacy of physical conditions of classrooms in Nandi Central Sub-County was also looked at and the findings revealed that majority of respondents from HODs indicated adequate at 66% and inadequate at 34%. It was also realized that 56 % of the Head teachers indicated adequate and 44% showed inadequate.

The researcher established that the level of adequacy of toilet facilities in Nandi central sub-county was at 52% and 60 % for the HODs and Head teachers respectively while the inadequacy level was at 47% and 40% for the HODs and Head teachers respectively.

Finally the study sought to find out the level of adequacy of security/environment in Nandi Central Sub-County and the study findings revealed that majority of respondents including HODs indicated adequate which comprised of 69% while 31% of the respondents indicated inadequate. On the other hand 61% Head teachers indicated adequate while 39% of the respondents indicated inadequate.

From the results above it meant that most of the expenditure in the schools was being affected by the increased cost of providing various facility in the schools. This would imply that the heavy effects of the cost sectors in the school would have significant Influence on the way management operates and they would be required to formulate strategies to deal with the rising costs. This concurs with Bray, (2000) who state that the cost of learning materials, books, uniforms and other expenses, in addition to opportunity costs, deter poor students from engaging in formal secondary education especially. This cost include Personal books e.g. dictionaries, bible, atlas and hymn Book. Uniform fees, boarding fees, PTA, medical, caution, Personal basics e.g. soap, pens, exercise books and shoes.

4.5 Prioritization of Projects on Service Delivery

The third objective sought to determine the influence of priotization of projects on service delivery in public secondary schools.

4.5.1 The sources of Funds for Providing Extra Curricula Activities in the school

The researcher found it necessary to find out the sources of funds for providing extra curricula activities in Nandi central Sub-County.

Table 4.7 Sources of Funds for Providing Extra Curricula Activities in Your School

Sources of funds	Head teachers		(HODS)	
	F	%	F	%
Sourcing funds from the government of Kenya through the ministry of education	3	34%	22	36%
Sourcing from parents extra-curricular activity participation fees	2	24%	14	23%
Donors sponsor	2	22%	11	18%
Regular budget allocations	1	10%	8	14%
Fundraising events	1	9%	6	10%
Total	10	110	61	110

The study sought to establish the sources of funds for providing extra curricula activities in Nandi central Sub- County. The study findings revealed that the majority of the respondents involving the Head teachers said that sourcing funds from the government of Kenya through the ministry of education which comprised of 34%, sourcing from parents extra-curricular activity participation fees was at 24%, donors sponsor comprised of 22%, regular budget allocations at 10% and lastly fundraising events was at 9%. On the other hand, study findings revealed that the majority of the respondents involving HODS indicated that, sourcing funds from the government of Kenya through the ministry of education which comprised of 36%, Sourcing from parents

extra-curricular activity participation fees was at 23%, donors sponsor at 18%, regular budget allocations had 14% and lastly fundraising events comprising of 10%.

This meant that besides the usual collection of fees that is common to both the day and the boarding schools, the different categories of schools have developed other sources of incomes that suite them and are sustainable to them. This is true as it concurs to Martim (2008) in his book about inequalities in education he discusses the common strategies that schools have implemented in an effort to curb the rising costs. He discusses the use of farming activities as the a common strategy for boarding schools and the use of community funds for the day schools as most the day schools are owned by the non-governmental organizations.

4.5.6 Efforts used to cope up with Increased Cost of Extra Curricula Activities

The table 4.8 illustrates the efforts used to cope up with increased cost of extra curricula activities in Nandi central Sub-County.

Table 4.8 Efforts used to cope up with increased cost of extra curricula activities

Cost of extra curricula activities	Head	HODS
	teachers	
	%	%
To reduce curricular activities expenditures	36%	32%
Sourcing funds from the government of Kenya through the ministry of education	23%	27%
Sourcing from parents extra-curricular activity participation fees	18%	14%
Seeking for donors to sponsor these activities	14%	18%
Regular budget allocations	9%	5%
Fundraising events	1%	4%
Total	100	100

The research evaluated the efforts used to cope up with increased cost of extra curricula activities in Nandi central Sub-County. The study findings revealed that the majority of the respondents including Head teachers indicated that 36% proposed the reduction of curricular activity expenditures, 23% agreed on sourcing funds from the government of Kenya through the ministry of education, 18% said that parents should subsidize extra-curricular activity participation fees, 14% proposed seeking for donors to sponsor these activities, 9% insisted on regular budget allocations and 1% recommended on fundraising events.

On the other hand of the respondents, the HODS indicated that efforts used to cope up with increased cost included , reducing curricular activities expenditures which was agreed at 32%, sourcing funds from the government of Kenya through the ministry of education at 27%, sourcing from parents extra-curricular activity participation fees comprising of 14%, seeking for donors to sponsor these activities at 18% , regular budget allocations having 5% and lastly fundraising events comprised of 4%.

This implied that raising the amount of fees payable and improving resource utilization were also identified as possible strategies that the school management heads employed to deal with the rising costs. These findings indicated that development is a must for all schools as they are the governing principles of quality education in the country and are contained in the strategic manuals that govern the operations of the school heads. This indicates that scaling down development projects is not a viable option for the school heads. According to Odero, (2007), a school manager must do all that is within his limits to ensure that the school operations are not halted by financial constraints. He must do with the available finances and develop strategies that will ensure that resource allocation is effective and efficient.

4.6 Alternative Sourcing of Finance on Service Delivery

The fourth objective sought to establish on whether alternative sources of finance has an influence on service delivery in public secondary schools.

4.6.1 The General Condition of Accommodation Facilities in the School

Figure 4.4 showed the general condition of accommodation facilities in Nandi Central Sub-County.

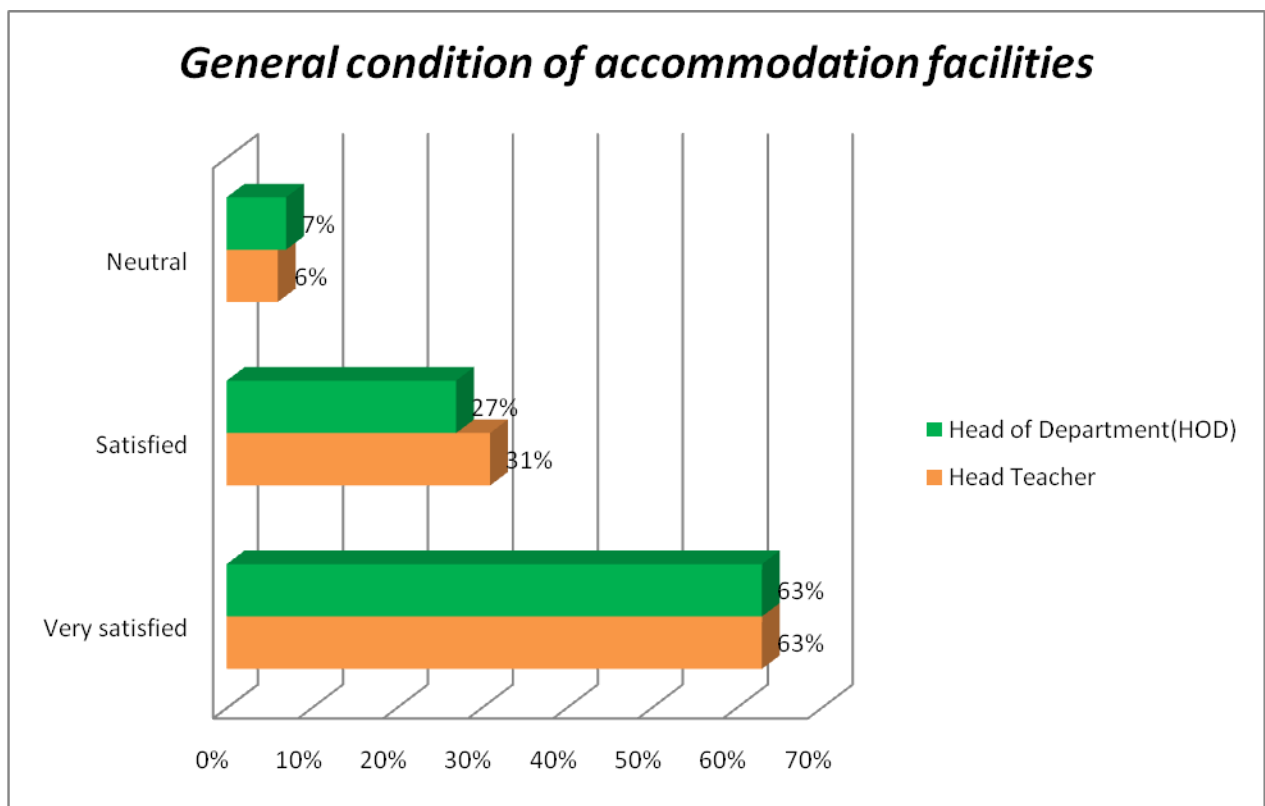


Figure 4.4: General Conditions of Accommodation Facilities in the School

The head teachers and HODs were asked the rate of satisfaction on condition of accommodation facilities in Nandi Central Sub-County. The study findings revealed that the majority of the respondents involving Head teachers showed, very satisfied at 63%, Satisfied at 31% and neutral

at 6%. On the other hand, majority of the respondents including HODs indicated that 63% were very satisfied, 27% were satisfied and lastly 7% of the respondents were neutral.

4.6.2 How Adequate are Funds Provided for School Accommodation Services

The study sought to find out how adequate are funds provided for school accommodation services in Nandi Central Sub-County.

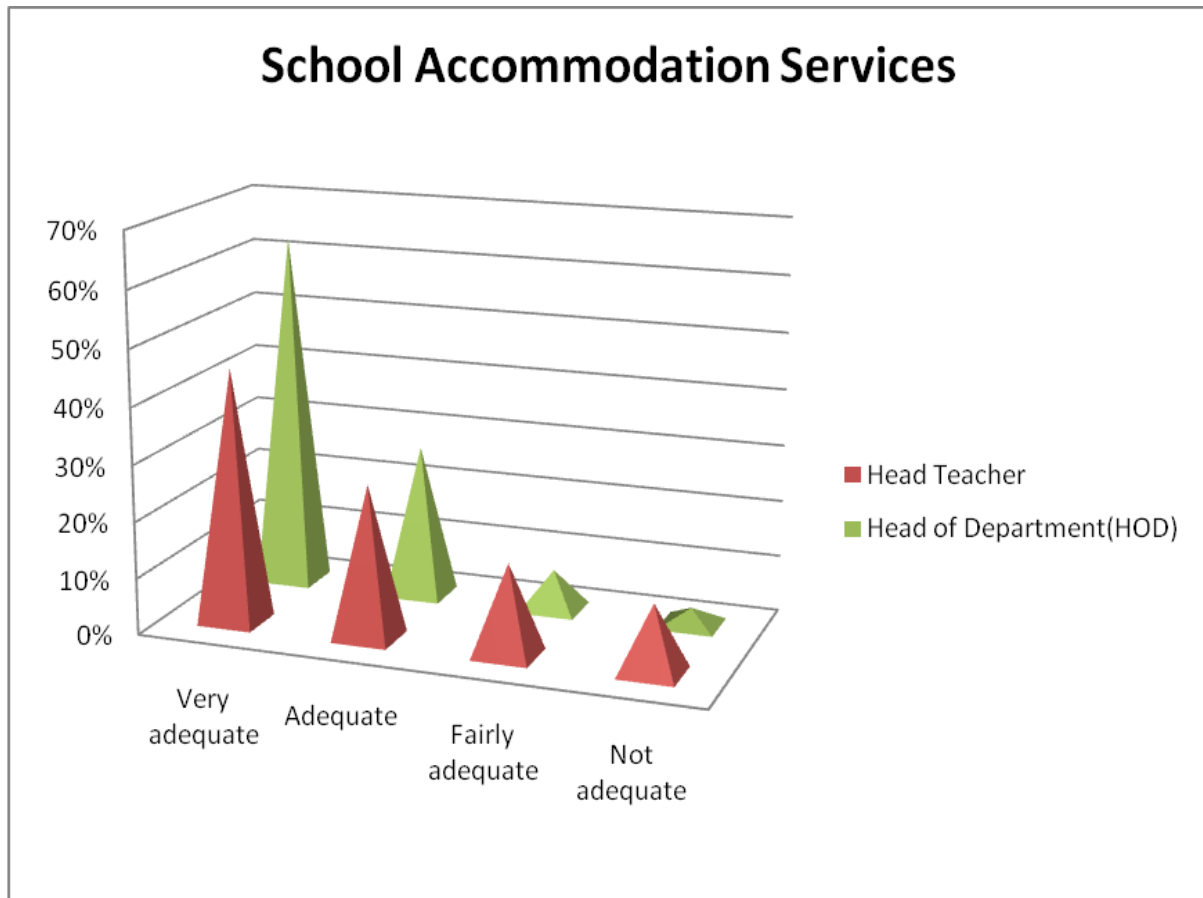


Figure 4.5: Adequacy of funds provided for school accommodation services

From figure 4.5 above, the study findings revealed that, the majority of the respondents involving Head teachers indicated very adequate at 45%, adequate at 27%, fairly adequate at 16% and lastly 12% of the respondents indicated not adequate. On the other hand, the study findings revealed that the majority of the respondents involving HODS indicated that 63% were

very adequate, 27% adequate, 7% fairly adequate and lastly 3% of the respondents indicated not adequate.

From the above findings it implies that raising the amount of fees payable and improving resource utilization are also possible strategies that a large proportion of the respondents who participated in the study pointed out. Hence the school management heads can employ austerity measures to deal with the increased expenditure of running a school.

Achola (in Kosgei, 2011), studied the financing of secondary schools in Kenya and found out that the expenditure for provision of accommodation services on education were too high and unrealistic and recommends for urgent need for community and local governments to finance the supply of education with a very limited support from the central government. The study fails to recognize the fact that education is a human right and it is the responsibility of the government to ensure that her citizens get access to basic education. The study also fails to suggest ways of putting the existing finances into better use by the institutions and unit cost of secondary education in Kenya.

4.7 Measures Used to Cope Up With Increased Costs on Accommodation Services

The table below shows the general measures used to cope up with increased costs of providing accommodation in Nandi Central Sub-County.

Table 4.9 Measures Used to Cope Up With Increased Costs of Accommodation Services

Statements	Head teachers	Head of Department(HODS)
Yes	63%	65%
No	37%	35%
Total	100.0	100.0

From the study there are general measures that can be used to cope up with increased costs of providing accommodation services in public secondary school in Nandi Central. It was noted that 63% of the Head teachers agreed that there were measures while 37% said no. On the other hand, the study findings revealed that the majority of the respondents involving HODs who indicated yes were at 65% while 37% of them indicated no.

The study therefore concludes that the biggest effect of the increased expenditure is the academic performance of the schools as opposed to its development. The operations in the school has to developed alternative strategies to deal with the increased expenditure for example finding alternative ways to raise money for school projects.

Uvah (2014), the increasing expenditure on development of infrastructural services could be met by introducing or increasing users' charges, such as fees at the tertiary level of education, a typical bill for public secondary schools. School principals require greater autonomy from government, particularly in infrastructural expenditure, if they are to become more entrepreneurial and provide the incentives necessary to encourage quality performance and efficient strategies to cope up with this rising expenditure.

4.8 Discussions from interview for BOM

The school team in charge of Income Generating Activities

From the interview schedule the BOM were asked on whether the school had a team in charge of income generating activities in Nandi Central Sub-County. The study findings revealed that, 72% of the BOM stated that there was a team in charge of income generating activities while 28% said they did not have a team.

Membership of the Team

The respondent was asked whether he or she was a member of the team in charge of income generating activities and the responses showed that 79% were members whereas 21% were not.

Provision of Services in the School

The study sought to find out if the respondents tend to meet to follow up on the provision of services in Nandi Central Sub-County, 66% of the respondents reveal that they met often while 34% indicated rarely.

Principal of the School Facing Challenges in Income Generating Activities

From the interview the study assessed whether the school principal face challenges in income generating activities in Nandi Central sub-county. The findings revealed that the majority of the respondents agreed at 72% while 28% indicated that the school principal did not face challenges on income generating activities.

Hanold (2012) did a study on educational expenses and noted that there has been a massive increase in spending in education all over the world. This has been attributed by inflation, the need for more sophisticated equipment such as computers, laboratory equipment, home science materials and projectors and the ever-growing demand for education which has led to increase in cost of education.

If yes what do you always do to assist them with this challenge

The respondents said that they advices the head teachers of the schools to adopt income generating activities depending on available resources. These included activities like installation of posho mill, engaging in agricultural activities, startup of bakery business and running a canteen.

School utilization of available resources on service delivery in public secondary schools

The BOM were asked on whether the school utilizes available resources on service delivery in public secondary schools in Nandi Central Sub-County. The study findings revealed that, the majority of the respondents comprising 75% said yes while 25% indicated no.

On whether the school has projects put into consideration that enhances service delivery in Public secondary schools in Nandi central Sub-County. 78% respondent agreed while 22% of the respondents indicated no.

The research however established that the increased expenditure which was reflected in the decrease in budgets did not affect the physical development of the schools, utilization of resources in the school and neither did it affect the dropout rates and the motivation of the staff in the school. According to Odero, (2007), the increased expenditure of education influence the academic performance of the schools and thus schools should developed strategies to deal with the increased expenditure by finding ways of raising finances.

School management handling the rising cost of providing infrastructural services

In trying to find out whether the school management handles the increased expenditure of providing infrastructural services in Nandi Central Sub-County, it was noted that the majority of the respondent at 90% said yes while 10% indicated no.

Efforts which can be used to cope up with increased cost of extra curricula activities

The study sought to find out whether the school has put efforts which can be used to cope up with increased cost of extra curricula activities in Nandi central Sub-County. The study interview revealed that the majority of the respondents indicated yes which comprised of 69% while 21% of the respondents indicated no.

Measures used to cope up with increased costs of providing accommodation services

From the interview the BOM were asked to find out whether the school has measures that are used to cope up with increased costs of providing accommodation services in Nandi Central Sub-county, and it revealed that 86% of the respondents indicated yes, while 14% indicated no.

The other option to ease the problem of fees was to levy a 2% education levy on government taxes (Siringi & Mbabazi, 2006). A reduction in school fees at the secondary level would greatly improve access to secondary schools particularly in rural areas and for children of the low-income group. Given this background, it was important to find out the cost effective measures necessary to reduce operational costs of secondary education.

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter contains a summary of findings, the conclusions drawn and the recommendations made thereof. It finally offers the suggestions for further research.

5.2. Summary of the Findings

5.2.1 Summary of the findings on income generating activities

From the study findings measures that the school Head teachers can use to cope up with cost of providing tuition facilities include application for annual CDF Support /grants, installation of Posho mills, engaging in agricultural activities, starting up a bakery business, running a canteen as an income generating activity and finally donor assistance. However, this showed that application for annual CDF Support /grants and installation of Posho mills were the main activities that could have been used by secondary schools principals to generate more income in order to cope up with raising costs.

Both the head teachers and HODs indicated that by availing adequate revision materials and the ability to organize educational trips were the most benefit that the school had enjoyed from tuition fees. These findings agree with Manga, (2009), the implementation of the secondary strategy is a responsibility for all Head teachers and it is hoped that the various stakeholders will play their respective roles to enable the government enhance access to quality secondary education. Prudent management of resources at the school level and the adherence to the set financial regulations is mandatory if the strategy is to achieve the desired results. These finding were supported by Systems Theory of Administration which was proposed by Simmons (2000),

who argued that the systems theory is one-sided and inadequate. To him, industrial relations go beyond the recognition of formal institutions but it is necessary that personal and unstructured relationships as well as informal relationship are usually important in an industrial relations system.

5.2.2 Summary of the findings on Utilization of Available Resources on Service Delivery

The principals of public boarding secondary schools were responsible and keen on the raising expenditure on provision of tuition services .The government and all other stakeholders should look upon the Head teachers for effective implementation of any program introduced at this level. Reduction in free tuition in secondary Education is such a program that was introduced and it is the responsibility of the Head teachers to ensure that it is effectively implemented on the ground. Subsidize secondary education have an opportunity and presents great challenges to Head teachers as it is not adequate to gather for all the tuition services.

It was further revealed that the benefits the school enjoys from the tuition fees generated include organizing educational trips, availing adequate learning and teaching materials such as textbooks ,contests and symposiums attendance, capacity to construct well equipped laboratories and workshops ,easy to pay debt and finally enabled teachers to attend seminars and workshops.

Findings further revealed that teams in charge of infrastructural service, and on whether the school management handled the rising cost of providing infrastructural services, the school management had failed to handle the rising cost of providing infrastructural services.

The majority of the respondents indicated, that head teachers were involved as the member of the team .It was revealed that majority of them had occasionally met to budget for infrastructural services.

This findings did not concur with Abagi, (1997), who found out that the act of physical infrastructure includes structures such as classrooms, kitchen, laboratories, water tanks, playground, and equipment among others. The facilities can be either permanent or temporary, such structures are supposed to be appropriate, adequate and properly located in order to reduce maintenance expenses.

Provision of quality education and training has been a critical issue in Kenya since independence. This has been generally due to the increasing demand for more educational opportunities by the growing population which in turn increases school expenditure on infrastructure. Hyman goes beyond and supports Simmons (2000), on system theory by mentioning that job regulation in terms of command and authority are power in organizations. He justified the position of trade unions as a balance of power and argues for its sustenance as a weak union could be marginalized by the management.

5.2.3 Prioritization of Projects on Service Delivery

The study made a summary that the school management handles the rising cost of providing infrastructural services, the school had utilized available resources on service delivery in public secondary school where the majority had agreed.

This had an implication that annual CDF Support /grants and installation of Posho mills were the main activities that could have been used by secondary school to generate more income in order to cope up with raising costs. The principals of public boarding secondary schools are responsible to be keen on the raising expenditure on provision of tuition services of secondary school .The government and all other stakeholders look upon the Head teachers for effective implementation of any program introduced at this level. Free tuition secondary Education is such

a program that was introduced and it is the responsibility of the Head teachers to ensure that it is effectively implemented on the ground. Free secondary Education has opportunities and presents great challenges to Head teachers as it is not adequate to gather for all the tuition services.

This meant that besides the usual collection of fees that is common to both the day and the boarding schools, the different categories of schools have developed other sources of incomes that suite them and are sustainable to them. This is true as it concurs to Martim (2008) in his book about inequalities in Education where he discusses the common strategies that schools have implemented in an effort to curb the rising costs. He discusses the use of farming activities as the common strategy for boarding schools and the use of community funds for the day schools as most the day schools are owned by the non-governmental organizations.

5.2.4 Alternative Sourcing of Finance on Service Delivery

The study further revealed that the level of adequacy of laboratory, library facilities, water and electricity in Nandi central Sub-County, the study findings revealed that majority of respondents including HODs and head teachers indicated adequate. The study sought to find out the level of adequacy of recreational facilities in Nandi central sub-county, the study findings revealed that majority of respondents including HODs indicated adequate. The study sought to find out the level of adequacy of physical condition of classrooms in Nandi Central Sub-County, the study findings revealed that majority of respondents including HODs indicated adequate.

On the level of adequacy of toilet facilities in schools, the study findings revealed that majority of respondents including HODs indicated as adequate. The level of adequacy of security/environment in Nandi Central Sub-County, the study findings revealed that majority of respondents including HODs indicated adequate.

Achola (in Kosgei, 2011), studied the financing of secondary schools in Kenya and found out that the expenditure for provision of accommodation services on education were too high and unrealistic and recommended for urgent need for community and local governments to finance the supply of education with a very limited support from the central government. The study fails to recognize the fact that education is a human right and it is the responsibility of the government to ensure that her citizens get access to basic education. The study also fails to suggest ways of putting the existing finances into better use by the institutions. The study also fails to state the unit cost of secondary education in Kenya.

The system theory further states that implementing a solution to a problem in a school's service delivery is likely to affect other aspects of the school such as tuition facilities, physical facilities, and other finance tasks (Simmons, 2000).

The study findings on the sources of funds for providing extra curricula activities in Nandi central Sub- County, revealed that the majority of the respondents involving Head teachers indicated that Sourcing funds from the government of Kenya through the ministry of education , sourcing from parents extra-curricular activity participation fees, donors sponsor, regular budget allocations and lastly fundraising events.

The study findings showed the efforts used to cope up with increased cost of extra curricula activities in Nandi central Sub-County, the study findings revealed that the majority of the respondents including HOD and Head teachers indicated that to reduce curricular activities expenditures , sourcing funds from the government of Kenya through the ministry of education, sourcing from parents extra-curricular activity participation fees , seeking for donors to sponsor these activities regular budget allocations and lastly fundraising events and on the other hand of

the respondents .On rating the satisfaction on condition of accommodation facilities in Nandi Central Sub-County, the study findings revealed that the majority of the respondents involving Head teachers indicated that, very satisfied, satisfied and lastly of the respondents indicated neutral.

On the adequacy of funds provided for school accommodation services in Nandi Central Sub-County, the study findings revealed that, the majority of the respondents involving head teachers indicated very adequate which adequate .

Achola (in Kosgei, 2011), studied the financing of secondary schools in Kenya and found out that the expenditure for provision of accommodation services on education were too high and unrealistic and recommends for urgent need for community and local governments to finance the supply of education with a very limited support from the central government. The study fails to recognize the fact that education is a human right and it is the responsibility of the government to ensure that her citizens get access to basic education. The study also fails to suggest ways of putting the existing finances into better use by the institutions. The study also fails to state the unit cost of secondary education in Kenya.

The study therefore concludes that the biggest effect of the increased expenditure is the academic performance of the schools as opposed to the development of the schools and operations in the school as the schools have developed alternative strategies to deal with the increased expenditure for example finding alternative ways to raise money for school projects.

Uvah (2014), the increasing expenditure on development of infrastructural services could be met by introducing or increasing users' charges, such as fees at the tertiary level of education a typical bill for public secondary schools. School principals require greater autonomy from

government, particularly in infrastructural expenditure, if they are to become more entrepreneurial and provide the incentives necessary to encourage quality performance and efficient strategies to cope up with this rising expenditure. Human Capital Theory is supported by (Nyamasege, 2013) who elaborated that human beings invest in themselves through education and training. As a result of this, the school management is able to improve on its management strategies through quality leadership in schools in order to alleviate budgetary challenges.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Income generating activities on service delivery in public secondary schools, lies on application for annual CDF Support /grants, installation of Posho mills, engaging in agricultural activities, starting up a bakery business, running a canteen as an income generating activity and finally donor assistance. The study findings revealed that, majority of the respondents indicated that they are able to organize educational trips, avail adequate learning and teaching materials such as textbooks, contests and symposiums attendance, capacity to construct well equipped laboratories and workshops, easy to pay debt, and finally enable teachers to attend seminars and workshops easily.

This finding was supported by Systems Theory of Administration which was proposed by Simmons (2000), who argues that the systems theory is one-sided and inadequate. To him, industrial relations go beyond the recognition of formal institutions but it is necessary that personal and unstructured relationships as well as informal relationship are usually important in an industrial relations system.

On utilization of available resources on service delivery in public secondary schools, the study findings revealed that the majority of the respondents indicated that they have a team in charge of infrastructural services who occasionally meet to budget for infrastructural service and handle its rising cost.

The study findings revealed that the majority of the respondents involving Head teachers indicated that sourcing funds from the government of Kenya through the ministry of education,

sourcing from parents extra-curricular activity participation fees, donors sponsor, regular budget allocations and lastly fundraising events helped in managing school infrastructure. Provision of quality education and training has been a critical issue in Kenya since independence. This has been generally due to the increasing demand for more educational opportunities by the growing population which in turn increases school expenditure on infrastructure. Hyman goes beyond and support Simmons (2000), on system theory by mentioning that job regulation in terms of command and authority have power in organizations. He justified the position of trade unions as a balance of power and argues for its sustenance as a weak union could be marginalized by the management.

The alternative sourcing of finance on service delivery in public secondary schools it was concluded in that the general conditions of accommodation facilities in these schools were rated as satisfactory. The system theory further showed that implementing a solution to a problem in a school's service delivery is likely to affect other aspects of the school such as tuition facilities, physical facilities, and other finance tasks (Simmons, 2000).

The study further sought to find out whether there are general measures used to cope up with increased costs of providing accommodation in Nandi Central Sub-County. The study findings summarized that the school should utilize available resources, initiate income generating activities and scale down development projects. Human Capital Theory supported by (Nyamasege, 2013) elaborated that fact that human beings invest in themselves through education and training. As a result of this, the school management is able to improve on its management strategies through quality leadership in schools in order to alleviate budgetary challenges.

6.2 Recommendation of the Study

Based on the findings of the study the following recommendations were made on policy and practice. The study also made suggestions for further studies.

6.2.1 Managerial Implications

The research made the following research recommendations:-

The head teachers of secondary schools should adopt income generating activities through utilization of available resources such as agricultural activities, hiring school bus among others.

The government should ensure that school fees for schools are not raised but instead should encourage schools to seek for alternative sources of financing such as farming or cutting down on school expenditures and also increase their capitation.

In utilization of available resources on service delivery, the schools should ensure that they fully utilize resources at their disposal for example land to generate extra income for the schools with an aim of coping up with increased expenditure in schools.

On prioritization of projects on service delivery in public secondary schools, the school principals should develop school procedures that require school members including teachers and Board of Management (BOM) to participate in income generating activities.

On alternative sourcing of finance on service delivery in public secondary schools, the BOM should network to get more funding from sponsors and sponsors should also increase their participation. In-service training programmes should be promoted and funded by the government to ensure that school heads are able to deal effectively with the rising school costs through effective budgeting and resource allocation process.

6.2.2 Theory/Practice Recommendations

This study has made several important influences of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County and the new ways of working literature. Firstly, this study confirms existing literature in terms of influence of austerity measures adopted by principals on service delivery in public secondary schools.

From the systems perspective, the Systems Theory of Administration which was proposed by Simmons (2000), Confirms that the school management is involved in managing and solving problems in each part of the organizations especially those related to service delivery but doing so with the understanding that actions taken in one part of the organization affect other parts of the organization. For instance implementing a solution to a problem in a school's service delivery is likely to affect other aspects of the school such as tuition facilities, physical facilities, and other finance tasks.

Scholarly research has clearly examined the link between human capital theory and resource based theories developed by which was proponent by Arthur Lewis (1954) and Peter Coase (1937). The theories mostly places the ability for a firm to deliver sustainable competitive advantage on managing the resources such human that the outcomes are not limited to competitors.

The theories were based on competitive advantage of a firm lies primarily in the application of a bundle of valuable or intangible assets at the firm's disposal. The theory was developed by Arthur Lewis (1954) has been analyzed in broader rationale in different academic fields this theory mostly places the ability for a firm to deliver sustainable competitive advantage on managing the resources such that the outcomes are not limited to competitors. The theory

assumes that a firm is heterogeneous with respect to the resources it controls, it also assumes that the resources are not mobile therefore the longer lasting heterogeneity. In the perspective on competitiveness of the strategic fit adapted by firms, the main driver of an organization competitive advantage is the internal resources available in implementing the strategies (Mburugu, 2015). The underlying assumptions makes the theory lose a bit of its shape since resources such as entrepreneurship are highly mobile as they can be easily accessed or can easily change hands and school such as public secondary schools in Nandi Central Sub County can use the entrepreneurship to create more income to curb up raising expenditures.

However findings further revealed that other theories such as Dynamic Capabilities theory propose by Teece, (2011), can be adopted in this research to help to gain deeper insights into the recommendation as supported by, emphasizing on application and ability to create new wealth and customer capture methods by private companies that predominantly operate in a much changing legal, technological and economic environment, (Teece, 2011). The dynamic capabilities theory offers wide comprehensive overview of how a firm will develop its innovation, path dependency and the available assets of knowledge available to a particular firm. The dynamic capabilities theory extends the resource based theory on how valuable a company's resources can be maintained or sustained and redeveloped in the ever changing environment. Dynamic capabilities theory may assume various positions to the firm overall competitive strategy.

The capabilities may include integration functions which incorporated bringing together segments operations to achieve a common goal, creation of new resources to support existing functions in an organization and finally reconfiguring the operation of a firm in order to meet the changing business environment (Ambrosini and Bowman).

6.3 Suggestions for Further Research

Based on the findings on the contributions made by this study, it highlights a few aspects to be considered by future researchers. Other researchers should research on the effects of utilization of available resources to cope up with rising cost of education in secondary schools in Kenya.

Furthermore, a study was only done in Nandi County with a representative of 111 as sample, the researcher suggested that the same study to be carried in the entire County or other counties to compare their findings on influence of austerity measures adopted by principals on service delivery in public secondary schools in Nandi Central Sub County.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR HEAD TEACHERS

This questionnaire is issued purely for academic purpose and the information provided will be treated confidentially. Your corporation will be highly appreciated. Moreover your cooperation in ensuring that the questions in this questionnaire are answered will be highly appreciated. Please note that the information you give will be treated with confidence and will be used for academic purpose only.

SECTION A: Income generating activities on service delivery

- 1 a.) From the list below select measures that your school can use to cope up with cost of providing tuition facilities.
- i. Installation of posho mills
 - ii. Engaged in agricultural activities
 - iii. Starting up a bakery business
 - iv. Running a canteen
 - v. application for annaual CDF Support /grants
 - vi. Donor assistance
- b) From the above mentioned measures what benefits can a school enjoy from the tuition fees generated?
- i. Ability to organize educational trips
 - ii. Avail adequate revision materials
 - iii. Contests and symposiums attendance
 - iv. Capacity to construct well equipped laboratories and workshops
 - v. Easy to pay debt
 - vi. Will enable teachers to attend seminars and workshops.

SECTION B: Utilization of available resources on service delivery

2. (a) Does your school have a team in charge of infrastructural services?

Yes () No ()

b) (.i) If yes are you a member of the team?

Yes () No ()

(ii) If yes in the (b) above how often do you meet to budget for infrastructural service?

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.....

3) How does your school management handle the rising cost of providing infrastructural services?

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.....

4) Indicate the level of availability and adequacy of various facilities in your school.

- a) Laboratory facilities ()
- b) Library facilities ()
- c) Water and Electricity ()
- d) Recreational Facilities ()
- e) Adequacy of classrooms? ()
- f) Toilet Facilities ()
- g) Security/Environment ()

SECTION C: Prioritization of projects on Service Delivery

5) List down the sources of funds for providing extra curricula activities in your school?

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6) What are the efforts which can be used to cope up with increased cost of extra curricula activities?

- a) To reduce curricular activities expenditures
- b) Sourcing funds from the government of Kenya through the ministry of education
- c) Sourcing from parents extra-curricular activity participation fees
- d) Seeking for donors to sponsor these activities
- e) Regular budget allocations
- f) Fundraising events

SECTION D: Alternative Sourcing of Finance on Service Delivery

7). How satisfied are you with the general condition of accommodation facilities in your school?

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8) How adequate are funds provided for school accommodation services? (Tick appropriately)

- a) Very adequate ()
- b) Adequate ()
- c) Fairly adequate ()
- d) Not adequate ()

9). what measures are used to cope up with increased costs of providing accommodation services in your school?

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APPENDIX II: QUESTIONNAIRE FOR HODs'

This questionnaire is issued purely for academic purpose and the information provided will be treated confidentially. Your corporation will be highly appreciated. Moreover your cooperation in ensuring that the questions in this questionnaire are answered will be highly appreciated. Please not that the information you give will be treated with confidence and will be used for academic purpose only.

SECTION A: Income generating activities on service delivery

1 a.) From the list below select measures that your school can use to cope up with cost of providing tuition facilities.

- i. Installation of posho mills
- ii. Engaged in agricultural activities
- iii. Starting up a bakery business
- iv. Running a canteen
- v. Application for annual CDF Support /grants
- vi. Donor assistance

b) From the above mentioned measures what benefits can a school enjoy from the tuition fees generated?

- i. Ability to organize educational trips
- ii. Avail adequate revision materials
- iii. Contests and symposiums attendance
- iv. Capacity to construct well equipped laboratories and workshops
- v. Easy to pay debt
- vi. Will enable teachers to attend seminars and workshops.

SECTION B: Utilization of available resources on service delivery

2. (a) Does your school have a team in charge of infrastructural services?

Yes () No ()

b) (i) If yes are you a member of the team?

Yes () No ()

(ii) If yes in the (b) above how often do you meet to budget for infrastructural service?

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3) How does your school management handle the rising cost of providing infrastructural services?

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4) Indicate the level of availability and adequacy of various facilities in your school.

- a) Laboratory facilities ()
- b) Library facilities ()
- c) Water and Electricity ()
- d) Recreational Facilities ()
- e) Adequacy of classrooms? ()
- f) Toilet Facilities ()
- g) Security/Environment ()

SECTION C: Prioritization of projects on Service Delivery

5) List down the sources of funds for providing extra curricula activities in your school?

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6) What are the efforts which can be used to cope up with increased cost of extra curricula activities?

- i. To reduce curricular activities expenditures
- ii. Sourcing funds from the government of Kenya through the ministry of education
- iii. Sourcing from parents extra-curricular activity participation fees
- iv. Seeking for donors to sponsor these activities
- v. Regular budget allocations
- vi. Fundraising events

SECTION D: Alternative Sourcing of Finance on Service Delivery

7). How satisfied are you with the general condition of accommodation facilities in your school?

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8) How adequate are funds provided for school accommodation services? (Tick appropriately)

- i. Very adequate ()
- ii. Adequate ()
- iii. Fairly adequate ()
- iv. Not adequate ()

9). what measures are used to cope up with increased costs of providing accommodation services in your school?

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APPENDIX 111: INTERVIEW SCHEDULE FOR BOM

1) (a) Does your school have a team in charge of income generating activities?

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(b) If yes are you a member of the team?

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2) How often do you meet to follow up on the provision of services in your school?

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3) (a) Does the principal of your school face challenges in income generating activities?

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(b) If yes what do you always do to assist them with this challenge?

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4).How does your school utilize available resources on service delivery in public secondary schools?

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4) Mention some of the project that school put into consideration that enhances service delivery in public secondary schools

- (i).....
- (ii).....
- (iii).....
- (iv)

5) How does your school management handle the rising cost of providing infrastructural services?

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6) What are the efforts which can be used to cope up with increased cost of extra curricula activities?

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7) What measures are used to cope up with increased costs of providing accommodation services in your school?

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APPENDIX VI: LETTER OF INTRODUCTION

Korir Rose Chebet
Kisii University
Eldoret Campus
P.O. Box 10
Kapsabet

To respondents,
Dear Sir/Madam,

RE: PARTICIPATION IN AN EDUCATIONAL RESEARCH

I am a postgraduate student at Kisii University and I am required to carry out a research as part of my academic requirement. The research topic focuses on **INFLUENCE OF AUSTERITY MEASURES ADOPTED BY PRINCIPALS ON SERVICE DELIVERY IN PUBLIC SECONDARY SCHOOLS IN NANDI CENTRAL SUB COUNTY.**

You have been chosen to participate in this study I am humbly requesting you to create time out of your busy schedule to respond to the questionnaire attached and set aside time to fill.

The responses will be treated with confidentiality.

Thank you very much for your cooperation
Yours sincerely,

KORIR ROSE CHEBET

EM17/03767/14

I agree to participate in research

Sign.....

APPENDIX V: RESEARCH AUTHORIZATION

APPENDIX V1: RESEARCH PERMIT