

**FINANCIAL CONTROL MEASURES EFFECT ON MANAGEMENT OF  
EDUCATIONAL COSTS IN PUBLIC SECONDARY SCHOOLS IN  
MURANG'A COUNTY KENYA**

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## DECLARATION

This work is a product of my own effort and has not been submitted to any other institution or university for the award of any academic qualification. Any ideas, information, data, or illustrations drawn from other authors or sources have been appropriately acknowledged. Wherever material such as text, figures, or tables has been used from external publications or online sources, full credit has been given in line with the current APA referencing guidelines and the institution's anti-plagiarism requirements.

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## **DEDICATION**

This project is dedicated to all my teachers and family for their unwavering support

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## **ABBREVIATION AND ACRONYMS**

BOM	Board of Management
HOD	Head of Department
EACC	Ethics and Anti-Corruption Commission
HOD	Head of Department
KEMI	Kenya Education Management Institute
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
MOE	Ministry of Education
NACOSTI	National Commission for Science, Technology and Innovation
NESP	National Education Sector Plan
PA	Parents Association
SCDE	Subcounty Director of Education
SEBF	Secondary Bursary Fund
TIVET	Technical Vocational Education and Training Institutions
UNDP	United Nations Development Program

## ABSTRACT

This study looked at how financial control measures affect the management of educational costs in public secondary schools in Murang'a County, Kenya. In focusing on accountability and efficient use of funds, it explored areas such as budgeting, income management, expenditure oversight, procurement, inventory handling, and auditing practices. The study was guided by the following objectives; To assess the effect of expenditure controls, to determine the effect of income controls, to examine the effect of stores and inventory management practices, to analyze the effect of internal and external audit processes on the management of educational costs in public secondary schools in Kandara Sub-County. Consequently, the study was underpinned on the prudential theory introduced in 1980 by the American economist Arthur B. Laffer. The study used a mixed-methods approach, combining surveys and interviews to capture contextual insights, and numerical data. Study participants included bursars, principals, heads of departments, and the sub-county education officer. The analysis of the collected data involved descriptive statistics, Pearson correlation, ANOVA, and multiple linear regression. The study results showed that most schools prepared their budgets ahead of time and generally adhered to them, though some cases of overspending were observed. Income management practices were relatively strong, while inventory and auditing procedures were present but incoherently enforced. Staff with higher financial competence improved accountability, although uneven implementation of policies limited overall effectiveness. Moreover, correlation analysis indicated a positive relationship between financial control measures and the management of educational costs, with income controls showing the strongest effect ( $r = 0.78$ ,  $p < .01$ ). The regression model was statistically significant ( $F = 162.03$ ,  $p < .001$ ) and explained 89.7% of the variation in cost management. On comparison, among the factors studied, income control and inventory management emerged as the most influential predictors. Overall, the study concluded that robust financial control systems are key to managing educational expenses effectively. It recommended improving audit transparency, consistently enforcing policies, and investing in staff training to ensure sustainable financial governance in schools.

## **CHAPTER ONE**

### **INTRODUCTION AND BACKGROUND OF THE STUDY**

#### **1.1 Introduction**

This chapter is organized into several key sections that guide the foundation of the study. It begins with the Background to the Problem and the Statement of the Problem, followed by the Purpose of the Study, the Objectives, and the Research Questions. The chapter also outlines the Significance of the Study, its Limitations and Delimitations, as well as the Basic Assumptions underlying the research. In addition, the chapter presents the Theoretical and Conceptual Frameworks that inform the study, and concludes with the Definition of Operational Terms used throughout the research.

#### **1.2 Background of the Study**

Education generates economic, social and private benefits. To the nation, it is a great propeller of a nation's development as it equips the population with skills and knowledge required to drive the country towards economic development (Fazilah, Zahara, Aziza, Saran & 2011). Thus, the development of a county's economy depends so much on the level of knowledge and skills of its human resource.

Socially, education not only provides a base for economic wealth but also enables individuals to conquer poverty by increasing social prosperity. It enhances harmony and democracy, thus reducing political instability in a country. It also improves the quality of life of an individual by increasing his lifetime earnings with every increase in level of education. (Abdulgha 2014)

The education acquired in secondary schools is an important element in the life of an individual and its role cannot be underestimated. It improves an individual's

economic and social status, significantly lowers the death rates among the infants as well as empowering girls. According to UNESCO (2013), it is believed that if all girls received secondary education, underage marriage would reduce by 64%. In many instances, girls who receive secondary education tend to have fewer children and are able to give them better health care and nutrition, thus increasing their chances of survival than their counterparts with lesser education. The education and training acquired by children in their teenage years in many developed countries is of great significance as it not only equips them with employable skills but also other qualities that enable them to be productive in the economy. (Cohen 2014).

However, in spite of the many benefits attributed to education, cost is a pervasive barrier to education access globally especially for households with low incomes. According to UNESCO (2013), even in countries where the government or religious organizations cater for most of the direct costs, some costs such as uniform fee, boarding fee, stationery, food, PTA levies are still a great hindrance to accessing education especially for the economically disadvantaged families. The effect of the associated costs of education depends on the income levels of the family with the effects being felt greatly by poor households. Educational costs can be a major obstacle to accessing and completing education.

According to Ministry of human resource development, (2016), the greatest deterrent to universalize secondary education in India is affordability. This research established that cost and poverty are the major hindrances to educational access among other factors. The report points clearly that to attain educational targets in India, the issue of affordability is of great relevance. It affirmed that education expenditure is not only oppressive to the poor but there is a remarkable jump in cost from lower levels of

schooling to secondary level. The proportion of household expenditure that the poor households must allocate to access secondary education in form of both direct and indirect costs of education are quite huge and include spending on uniforms, food, stationary books and tuition fees. In Tanzania, a study by Sang (2013) on the rising schooling costs found that the proportion of students drop out as a result of inability to pay for such costs accounted for 24% of the dropouts among other factors. 73.6% of these dropouts had come from very poor background indicating that a large number of students drop out of school because of inability to pay for education expenses. This is an indication that access to education is directly related to cost.

Mohamed (2015) on influence of hidden and direct costs—such as fees, uniforms, learning materials, and other compulsory charges—that impact both access to schooling and the retention of learners in Garissa sub-county revealed that although primary education is free, direct costs of education such as school uniforms, PTA levies and hidden costs such as the opportunity costs hinder retention and access in primary education in Garissa. According to the study parents have to bear an average cost of 70% on school uniform, opportunity cost was 80%, payment of salaries to BOM teachers 76%. This has a very significant influence on access to education and the ability to retain learners in schools.

Noah, Anthony & Fred (2017) did a study in Bungoma County and noted that despite the government covering part of the cost of public secondary education, significant wastage still occurs in secondary education sector. According to this study, returns in education can be realized through efficient operations of institutions. It discovered that internal inefficiency is common among schools in the county. A dropout rate of 24% is a clear indication that a big proportion of learners were not completing their

education in secondary school. According to this study, among the many factors that influence drop out in Bungoma county, school fees, opportunity costs and other indirect costs contributed over 89% of the total dropout. These costs may be too prohibitive for parents with limited resources and they may therefore opt to educate boys only.

Gwendo (2016) in a study found out that in Kwale county, high dropout rate was a consequence of unaffordable cost of education. This shows that cost is a major hindrance to education access and completion for the economically disadvantaged households. In Kandara sub county, a study done by Waihenya (2014) on the effect of wastage on performance of KCSE in secondary schools in Kandara concluded that wastage in the form of absenteeism, repetition and drop out is common. Inability to pay school fees being the major cause which contributed about 55.3% among other factors. The research recommended provision of bursaries to needy students as one of the measures to curb this wastage.

Karanja (2016) in a study on effect of bursary funds on mitigating educational wastage in public secondary schools within Kandara Sub-County found that a large number of the students who have difficulties in paying fees come from economically disadvantaged background. SEBF therefore played an important role in funding education as the majority of the parents in Kandara sub-county lacked a reliable income source. Challenges of fee payment was cited as a key cause of wastage in the form of repetition and drop out in the sub county. Majority of the parents could not solely fund their children's education without external sources like SEBF. Karanja further opines that in Kandara Sub-County, an estimated 19.3% of learners were forced to repeat a class due to inability to meet school fee requirements and 20% had

dropped out. This shows that poverty in the sub county contributed to lack of ability to pay school fees which further affected access and retention in secondary education. According to Kandara education report (2014),30% of the learners who entered into secondary schools exited before finishing their secondary education cycle.

From the foregoing it is therefore evident that Kandara sub county is economically low. Majority of the people rely on coffee as the main cash crop which has low returns and with few alternative sources of income. Therefore, to increase the ability of learners to access education and be retained in secondary schools, it becomes necessary to investigate how educational costs can be managed. This can be controlled through efficient use of the resources to guard against wastage and misappropriation. Financial control measures are therefore necessary in order to maintain these costs at minimal levels and hence increase access and retention in secondary schools in Kandara. The studies done in Kandara focused primarily on financial management practices but have not looked into how these practices can influence educational costs. This was the focus of this study.

Without financial controls, it is impossible to talk about prudent financial management. According to Kinuthia, (2012) financial controls ensure resources are used prudently in the achievement of intended purpose. Control measures help in establishing benchmarks that determine the financial management strategies and cost reduction mechanisms that will lead to the accomplishment of the intended goals efficiently at minimal costs. This study used income controls (one of the financial control measures) which are measures taken to ensure that all cash received in an institution is properly recorded and securely kept. According to International Public Finance (2007), income controls are a safeguard against fraud. Such controls include

proper recording of all cash received and paid out, regular banking and secure storage of any cash in hand among other controls. Every secondary school should have established procedures through which it can safeguard its incomes. Effective income controls prevent theft, loss and misuse of finances. This enables the institution to meet its financial obligations without increasing the charges to the parents. This eventually reduces the educational costs, making it affordable thereby increasing access and retention of learners.

Income controls, as an independent variable, can be measured by examining the mechanisms and strategies employed by schools to monitor, regulate, and optimize the generation and utilization of financial resources. This involves assessing the extent to which schools implement budgetary planning, revenue tracking, and expenditure authorization procedures to ensure that available funds are efficiently managed. In this study, income control was measured using tracking of fee collections, recording and reconciliation of government capitation grants and oversight of other revenue sources (donations, fundraising).

Expenditure control is very critical in an institution. The institution's management must approve all the expenditure priorities. School funds must only be spent in reference to the budget that has been approved. (Benson & Danstan,2015). There should be accurate recording of all monies received and every authorized expenditure in the necessary books of accounts in the institution. Every school must have established procedures through which it can determine its expenditure priorities. According to Kinuthia (2012), financial controls ensure proper utilization of funds thereby safeguarding them against loss or fraud. They also enable the BOM to get precise information about the financial status of the school while making it easy to

detect errors and fraud. The independent variable of expenditure controls can be quantified by evaluating the mechanisms and protocols that schools apply in controlling, authorizing and regulating the use of school financial resources. This entails assessment of the level at which schools are undertaking the expenditure approval processes, adhering to budgetary allocations, and to the fact that all expenditure is within the institutional priorities and accepted financial planning. The indicators that were used to measure expenditure control in this study included compliance to budgets allocated, budget preparation and approval and effectiveness of procurement control. Moreover, the efficient management of stores and inventory proved to be one of the essential factors of the proper use of resources and promoting their security in educational organizations.

Inventory controls and stores have a significant role to play in the management of resources in the educational institutions. Nonetheless, Njeru (2004) observed that in the majority of schools, inventory policies are not formal in nature to inform how the schools should handle and track their assets. The head teacher should strive to have good maintenance of inventories. As an independent variable, stores and inventory controls can be indicated by investigating the policies, procedures, and practices schools use to regulate the acquisition, storage, utilization, and accountability of materials and supplies. This involves the evaluation of the efficiency of the inventory management systems such as accuracy of record keeping, frequency of stock taking, and application of reorder levels to avoid stock outages or surpluses. In this research stores and inventory controls were measured as maintenance of updated inventory registers and stock cards, correct issuing and receiving processes and frequent stock taking and auditing.

The internal and external auditing also make sure that there is a wise use of resources in institutions. According to the requirements of the Basic Education Act, 2013, the financial accounts of schools need to be audited and reported under the guidance of the provision of the Public Audit Act, 2003. Nonetheless, a research conducted by (Jelimo, Rotich & Kiprop 2014) revealed that there were schools, which were not audited within two or more years. This contributed to the unprocedural ways of using school resources. Gakunga (2018) also believes that school funds are not regularly audited and audit reports are never distributed to stakeholders in most cases. The independent variable, internal and external audit processes, can be determined in terms of measuring the mechanisms by which schools review, verify, and are accountable in financial management. This entails the consideration of the frequency of conducting the audits, the level of coverage- the rigor of the audit.

The audits are divided into internal audits, which are conducted by the school staff or by the auditors that the government appoints, and external audit, which is provided by independent agencies or supervisory bodies. The internal and external audit procedures were evaluated in this research in terms of the frequency and scope of audit, the effectiveness of audit recommendations implementation and the degree of accessibility of audit outcomes by stakeholders.

The dependent variable in this research is the management of educational costs in the public secondary schools, which involves the strategic planning, sharing, consuming, and tracking of finances to ensure the available finances are used efficiently and effectively to meet educational objectives (OECD, 2017). It also entails the school administrator to strike a balance between scarce resources and conflicting demands and ensure quality in education.

This variable in this study was measured using a number of indicators, some of which included efficiency in the use of resources, cutting waste and unnecessary costs, ensuring a timely acquisition of goods and services, and the realization of value on money in school endeavors, and the overall sustainability of school funding.

The Sessional Paper No.14 of 2012 was based on a system of education that would help bridge the income gap between the high-income earners and the low-income members of the society. This can be achieved by removing the disparities in the delivery of the service of education and reducing wastage that is common when students leave school because of the un-affordable tuition. Since access is linked to costs of education, the means of cost reduction can thus be applied to expand access. Republic of Kenya (2014) notes that schools which implemented cost cutting strategies had a relatively lower cost and therefore more access and retention. These items involved multitasking by non-teaching personnel and casuals, the income generating activities, keeping of prudent records that would guide use and purchase of teaching/learning materials and foodstuffs and seek professional advice on how to manage the school resources and architectural advise. Republic of Kenya, (2014)

IPF (2007) recommends that there must be the appropriate financial controls to prevent fraud and misappropriation. Padilla et al (2012) also believes that to achieve its objectives an organisation should adopt sound financial management practices that would promote accountability, transparency and efficiency. By avoiding the loss, misappropriation and misuse of institutional resources, the financial controls will help in reducing the cost of education because more money will be saved and this will translate to lowering the fees paid by parents, thereby improving access and retention in schools.

This paper was intended to investigate the financial control mechanisms practiced in public secondary schools in Kandara Sub-County with real consideration on how they handle the educational costs. It was aimed at such pillars as practices on expenditure and income control, stores and inventory management, internal and external auditing.

The prime aim of the research was to learn the effects of these financial control measures on managing costs, improving access to education, and retaining students.

### **1.3 Statement of the Problem**

The sustainable running of the secondary schools in the country and provision of good education requires effective management of the educational costs. In Kenya, there are programs like the Free Day Secondary Education (FDSE) program which was introduced to increase access and student retention. Nevertheless, these attempts have not ended because most schools, such as the one in the Kandara Sub-County, are still struggling with financial deficit due to poor financial management, resource misappropriation, and lack of accountability strategies.

These problems are usually demonstrated through the excessive use of budget, failure to procure the necessary learning resources, misuse of money, and a high turnover rate of lost or stolen resources; all of which inflate operations costs and burden parents with higher financial strains. The financial control tools (expenditure and income controls, inventory and stores control, internal and external auditing) will be aimed to reinforce the cost efficiency, transparency, and accountability in schools. Practically, however, a large number of the public secondary schools in the Kandara Sub-County have not been able to put these systems in action. As an illustration, in October 2024, six schools such as Ruchu and Gakarara Secondary Schools announced the break-ins that cost schools computers, books, and even school trophies as a result

of these break-ins, schools lost a lot of resources. This indicates that there are flaws in inventory management and security procedures that make these incidences recurrent causes of replacement costs (The Star, 2024).

Such studies have also indicated the constant inefficiencies in the financial control system of the Sub-County. Others spent money on unnecessary things as a result of poor procurement management in others like unplanned purchase or inability to use competitive bidding procedures, whereas in others, it did not follow audit recommendations (Ngugi, Awino, Getuno & Ondieki, 2015). Moreover, the failure of the disbursement of the government capitation funds, accrued child fees, and unauthorized recruitment of the Board of Management (BOM) personnel have remained issues that hinder financial prudence in school resources management. Munge, Kimani, and Ngugi (2016) survey indicated that also in 2016, resource wastage, which showed itself in absenteeism, dropout, and repetition, among others, was also a continuing issue, at least in part, because of the inefficient utilization of the available financial and material resources. However, the impact of financial control measures on managing the cost of education in the Kandara Sub-County public secondary schools, a knowledge gap, has not been covered in any recent studies, thus the need to fill this knowledge gap in the present study.

Nonetheless, the existing research focusing on the effects of the financial control practices concerning management of the educational expenses in the Kandara Sub-County public secondary schools is not sufficient--a research gap that the present study sought to fill. The current vulnerabilities in the financial management systems have led to the growth in the cost of education, the lack of access, as well as the

student retention and completion rates in the government secondary schools in the Sub-County.

Trying to make cost efficiency and access to education more affordable might not have the desired effect unless financial control mechanisms, in particular, procurement oversight, inventory control, and audit implementation mechanisms are reinforced. To address this gap, the current study dwelled on the analysis of financial control mechanisms applied in the Kandara Sub-County in the public secondary schools. Particularly, it discussed the effects that spending and income reinsurance, stores and inventory management strategies, internal and external auditing strategies have on the educational expenses control.

The research also aimed at finding out successful practices and areas of improvement to achieve cost efficiency and equal access and student retention.

#### **1.4 Purpose of the Study**

The purpose of this study was to examine how financial control mechanisms influence the management of educational costs in public secondary schools in Kandara Sub-County, Kenya. The study aimed to identify new gaps in financial control practices and recommend appropriate measures to strengthen financial management and promote cost efficiency in the education sector.

#### **1.5 Objectives of the Study**

The objectives of the study were to;

- i To assess the effect of expenditure controls on the management of educational costs in public secondary schools in Kandara Sub-County.
- ii To determine the effect of income controls on the management of educational costs in public secondary schools in Kandara Sub-County.

- iii To assess the effect of stores and inventory management practices in the management of educational costs in public secondary schools in Kandara Sub-County.
- iv To analyze the effect of internal and external audit processes on the management of educational costs in public secondary schools in Kandara Sub-County.

### **1.6 Research Questions**

This study sought to answer the following questions:

- i. How do expenditure controls affect the management of educational costs in public secondary schools in Kandara Sub-County?
- ii. In what ways do income controls affect the management of educational costs in public secondary schools in Kandara Sub-County?
- iii. How do stores and inventory management practices affect the management of educational costs in public secondary schools in Kandara Sub-County?
- iv. How do internal and external audit processes influence the management of educational costs in public secondary schools within Kandara Sub-County?

### **1.7 Significance of the Study**

The study findings are expected to provide benefits to various stakeholders in the education sector in the following ways:

#### **School Administrators and Principals**

The study is expected to offer evidence-based findings and recommendations that will be transformed into effective financial control mechanisms, that can enhance the efficient management of educational costs. Additionally, the findings will assist

school leaders in improving procurement processes, budgeting practices, inventory management, and adherence to audit findings and recommendations.

### **Boards of Management (BOMs)**

The study will provide Board of Management (BOM) members, with practical strategies to enhance financial oversight and accountability within their schools. It will also improve their ability to monitor budget implementation, and ensure that school expenditures are consistent with institutional priorities.

### **The Ministry of Education and Government Agencies**

The study findings will provide the Ministry of Education with evidence to review, and enhance policies, and regulations governing school financial management. In addition, the insights may inform capacity-building programs for school administrators, and auditors, aiming to improve cost control in public secondary schools.

### **Parents and Guardians**

Improved financial management practices are expected to decrease unnecessary educational expenses, thereby reducing the financial burden on households. Consequently, this could also make education more affordable, potentially increasing student enrolment and improving retention rates.

### **Students**

Effective management of educational costs will contribute to timely provision of learning resources, improved infrastructure, and better learning environments. Enhanced resource allocation may also translate into stronger academic results and greater emotional and social well-being among students.

## **Researchers and Academics**

The study will contribute to what has already been studied and documented about how finances are managed in education, with a focus on public secondary schools in resource-constrained settings. It will serve as a reference point for future research on cost management and financial accountability in educational institutions.

### **1.8 Limitation and Delimitation of the Study**

#### **1.8.1 Limitation**

Literature on stores and inventory controls in secondary schools was limited. Most of the literature reviewed was related to non-educational institutions such as financial institutions, parastatals and companies with scanty literature drawn from colleges and universities. To respond to this shortfall, the researcher adapted relevant concepts and frameworks from the broader literature on stores and inventory management in non-educational sectors and contextualized them to the secondary school environment. In addition, the study incorporated primary data from school-based case studies to generate empirical evidence specific to public secondary schools. This approach not only enriched the study's findings but also contributed to bridging the literature gap for future research in this field

Due to the sensitivity of financial matters and the confidentiality required, the researcher expected that some respondents especially the bursars would be reluctant to volunteer information. However the researcher dispensed this fear by first explaining to the principals that the study was for academic purpose and that the information collected was to be held with utmost confidentiality. This was further enhanced by the production of the research authorization documents by the researcher. This enabled the principal to allow the bursars to fill in the questionnaires.

### **1.8.2 Delimitation**

Only Secondary schools under public management in Kandara Sub-County of Murang'a County. were targeted in this study. Private secondary schools were exempted. This is because they are not funded by the government and therefore do not receive fees guidelines from the government. The management of their resources is in the hands of the individual owners. They are not therefore obliged to follow the government guidelines on the use of school funds.

### **1.9 Assumptions**

- i School administrators and financial officers will provide accurate and honest information regarding their financial control practices.
- ii The selected schools in Kandara Sub-County operate under similar Ministry of Education financial guidelines and policies.
- iii Financial control mechanisms, if effectively implemented, have the potential to influence educational cost management.
- iv Respondents have sufficient knowledge of their school's financial practices to provide reliable responses to the research instruments.

### **1.10 Theoretical Framework**

This research drew its foundation from the Prudential Theory, introduced in 1980 by the American economist Arthur B. Laffer. He postulated that every individual including managers of institutions should be equipped with knowledge of how to handle and use money wisely. Prudence according to him implied careful planning, diligence and proper judgement in the use of public resources so that maximal goals can be achieved. It requires managers to fore plan, control, determine and be ready for any future occurrence in the institution. When dealing with school funds, it is

necessary for school heads to guard against misuse of resources and wasteful expenditure. (Kinyanzii, Ombuki & Kali, 2019).

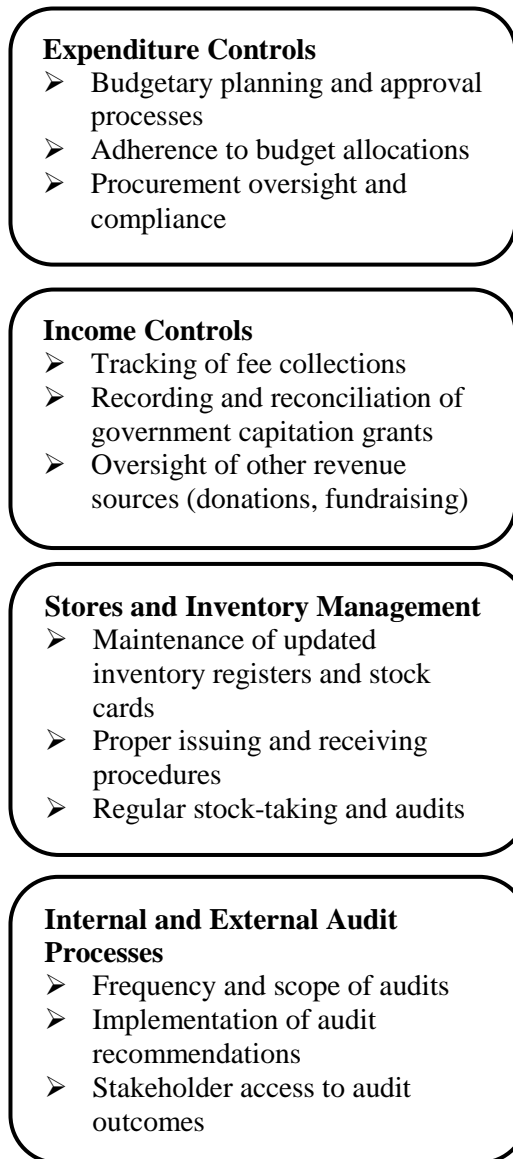
School administrators who use few resources and achieve much were seen as managers with good management skills. According to Republic of Kenya, (2014), efficiency in school management is determined by the school administrator's ability to sufficiently provide essential services to the school community while charging relatively low fees.

The prudential theory can be applied in education especially when dealing with the manner in which resources are managed and utilized in public institutions. This is because resources are generally scarce in supply while their uses are unlimited. Economics demonstrates how optimum benefits can be obtained with scarce resources. This formula applies not only to schools but also to other non-academic institutions. (Chinyere, 2010). For educational institutions to achieve their objectives, heads of these institutions must strive to utilize the resources at their disposal meaningfully. Financial controls will ensure prudent utilization of resources which ensures they are less wasted and misused. This will in turn reduce educational costs and hence increase access to secondary education.

## 1.11 Conceptual Framework

### Financial Control measures

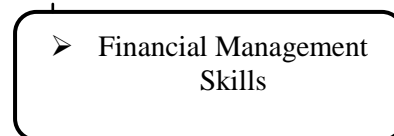
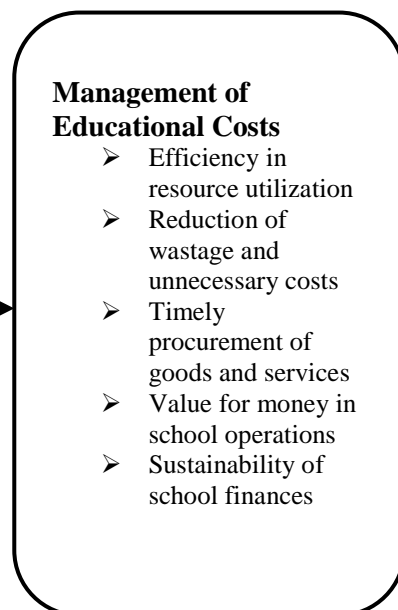
#### Independent variables



#### Intervening Variables



#### Dependent Variable



**Figure 1.1: Conceptual Framework**

In this study, the conceptual framework adopted management of educational costs in secondary schools as the dependent variable which greatly depends on financial control measures that helps to keep them at minimum levels. The dependent variable

was measured by efficiency in resource utilization, reduction of wastage and unnecessary costs, timely procurement of goods and services, value for money in school operations and sustainability of school finances. Financial control measures minimize wastage of available resources, increases efficiency, therefore making education affordable and consequently leading to increased access, retention and consequently reduced wastage. These measures include expenditure and income controls, stores and inventory control measures and external and internal audit processes (Independent Variables). The income controls include factors related to tracking of fee collections, recording and reconciliation of government capitation grants and oversight of other revenue sources (donations, fundraising).

Expenditure controls include budgetary planning and approval processes, adherence to budget allocations and procurement oversight and compliance. Stores and inventory control measures include factors such as maintenance of updated inventory registers and stock cards, proper issuing and receiving procedures and regular stock taking and audits. The fourth independent variable, internal and external audit processes include frequency and scope of audits, implementation of audit recommendations and stakeholder access to audit outcomes. The conceptual framework also adopted intervening variables impact on the relationship between the dependent and independent variables.

The intervening variables were government policies and financial management skills. Relevant government policies for example consistent auditing process ensure reliable controls and thus help reduce educational costs. Relevant financial skills also help the school managers to supervise and also maintain an efficient financial management process that further ensures various controls are put in place.

## **1.12 Operational Definition of Terms**

**Auditing**—regular inspection and verification of financial records to ascertain their correctness.

**Budgeting**- Is the process of planning on how an institution will acquire and utilize its financial resources taking into account the scarcity of such resources within a given period of time.

**Management of educational costs**- refers to the proper utilization of educational resources to ensure that educational objectives are achieved at minimal costs.

**Expenditure controls**- restrictions imposed to ensure that institutional resources are only spent for authorized purposes.

**Financial control**- Measures organized to guarantee prudent use of financial resources

**Income controls**-control measures aimed at ensuring that monies received in an institution is safely kept and put into the right use.

**Internal control**-checks within an institution that ensures proper utilization of resources by guarding against wastage.

**Inventory**: A book for recording goods received in a school.

**Prudent financial management**- Maximal utilization of resources in the most inexpensive means in order to realize the intended educational objectives.

**Vision 2030**- A government's economic development plan geared towards transforming Kenya into an industrialized economy by the year 2030.

## CHAPTER TWO

### REVIEW OF RELATED LITERATURE

#### 2.1 Introduction

This study aimed to examine the impact of financial control measures on managing educational expenses in Kandara Sub-County, Kenya. This was done with a view to establish gaps in financial control and propose measures in financial management. The chapter reviewed literature related directly or indirectly to financial management in schools, financial controls, income controls, expenditure controls, stores and inventory controls, internal and external audit processes, gaps and summary of literature reviewed.

After independence, many countries in Africa including Kenya recognized that it was impossible to develop socially and economically without education. Education has been identified among the seven key social sectors that would require to be transformed for the country to achieve the Kenya Vision 2030. Nevertheless, cost is a significant impediment to acquiring secondary school education particularly among learners from poor households in many countries. In India, a major challenge confronting access to secondary education is affordability. Even where most of the direct costs are shouldered by the government, there are still other subsidiary costs such as uniforms, fees, travel, private tuition and opportunity costs that households have to cater for. (Ministry of human resource,2016). In Africa, secondary education is not always accessible across the continent. Although 17 countries in the sub-Saharan Africa representing 37% have already started offering fee free secondary education, there are still some additional costs and barriers to secondary education especially for the low-income families. These hidden costs incorporate non-tuition

expenditures such as school uniforms, boarding fees, PTA levies, feeding programs, and transport costs. (Kim, 2020).

In Kenya, the government introduced cost sharing in education in 1988 whose intention was to make the beneficiaries share the financial burden of education. In secondary schools, parents were required to pay fees in order to meet all the other operational costs apart from the teachers' salaries (Republic of Kenya, 1988). Cost sharing however increased the financial burden to parents leading to declined enrolment and completion rates with serious consequences on gender imbalance at secondary and tertiary levels of education (Republic of Kenya, 1997). The report of 1999 by the Commission of Inquiry on the Kenyan education system (Koech Report) proposed strict expenditure control and reduction of educational costs through strengthening of financial management in schools. However, according to Kones (2012), the consequence of increasing educational costs has been increased fees at secondary level in Kenya. This has made secondary education in Kenya very expensive and off the reach of many children especially those from poor families.

With an aim of bringing down the cost of education at the secondary level the government appointed the Dr. Kilemi Mwiria's Taskforce which produced a report on secondary school fees in Kenya following concerns from the public and various stakeholders about the increasing costs of secondary education. (Republic of Kenya, 2015).

The taskforce proposed Annual fees amounting to KES 23,973 for day schools, KES 51,839 for boarding schools, and KES 55,435 for secondary schools catering to students with special needs.

According to a circular released by the minister of education in February 2015, on fees chargeable in public secondary schools in Kenya, parents should pay a maximum of; Annual costs KES 9,374 for day schools, KES 53,553 for boarding schools, and KES 37,210 for secondary schools serving students with special needs.. The Government of Kenya under the Free Day Secondary Education policy contributed KES. 12,870 per year for every student admitted to a public secondary school. From January 2018 the government started paying the full fees of ksh.22, 444 per year for day scholars while Parents were only to shoulder the costs of uniform and lunch. The maximum fees for boarding schools were set at Ksh.53,554. This was part of the recommendations of the Kilemi Mwiria taskforce recommendations that the cost burden on parents be reduced. The government also meets the full cost of examination for KCSE including for candidates in private schools. However, despite these interventions, some schools continue to charge high fees in form of private tuition levies, boarding fees and food. This has greatly affected access, retention and completion rates in secondary education. It therefore becomes necessary to investigate the financial management challenges that could be contributing to these high costs.

Naturally, resources available at our disposal in the economy at any given time are generally scarce such that they should only be directed to the intended purpose and not any other. Consumers wants on the other hand are indefinite but the means to satisfy these wants are limited. (Nyam., 2005)

Under conditions of scarce economic resources, only prudent financial management practices can enable educational institutions to achieve their objectives effectively and efficiently. Institutional managers have severally been accused of waste, poor administration and inefficiency. The public has many at times been heard demanding

to get ‘value for their money’. However, value for money in an educational institution can only be achieved if managers make optimal use of resources at their disposal. Value for money can be gauged in terms of economy, efficiency and effectiveness. Economy occurs where resources are obtained at the minimum possible cost. An example of lack of economy in a school is where there is overstaffing, or purchase of overpriced commodities. (Diana, 2010).

Efficiency measures the relationship between inputs and outputs. It is achieved when maximum output is obtained from few resources. Institutional managers must always strive to achieve efficiency by ensuring that resources at their disposal are not wasted. School managers should adopt strong internal controls into financial practice so as to increase efficiency.

Effectiveness measures the relationship between the outcome and the objectives of an institution. It ensures that the desired results have been obtained from the given output. Unlike economy and efficiency, effectiveness is concerned with achievement of results but not necessarily the amount of resources spent to achieve them. (Chiuri & Kiumi, 2005).

## **2.2 Expenditure Controls and Management of Educational Costs**

Makena and Mugendi (2025) analyzed the effect of government expenses on technical efficiency in Narok County secondary schools. Their findings indicated that government capitation, infrastructure investments, teaching materials, and student–teacher ratios had a positive influence on efficiency levels. However, a notable conceptual gap is evident, as the study addressed drivers of efficiency without examining detailed expenditure control systems.

Mkhize, Fouche and van der Walt (2021) have examined the process of budget preparation, implementation and control of South African secondary schools in the Free State Province. They found that incremental budgeting was widespread and generally effective with weaknesses in expenditure monitoring and debt collection noted. Nonetheless, the study has been lacking in conceptual gap since other essential cost-control factors like procurement management and expenditure budget systems were not taken into account. Also there is a population gap, in that the sample excluded other important stakeholders in the education sector and only featured mostly administrators of the schools,

Oyaro and Nyakwara (2019) assessed the significance of budgetary practices in the process of implementing school projects in Kisii Central Sub-County. The research results established that the budget planning enhanced decision making, delegation and project execution. However, the research was predominantly based on the descriptive and correlation studies and lacked causal evidence, thus, there was a gap in the methodology. The conceptual gap was also observed in the study due to its limited orientation on project budgeting and not extensive expenditure control measures.

In their investigation on the difference in procurement practices that impact spending management in the Nairobi City County secondary schools, Odundo, Kinuthia, and Nyagah (2018) detected that structured procurement practices in terms of frequent adverts of tenders, regular meetings of the tender committees, and training of the committee members helped improve cost control where the emergency procurement and tender splitting undermined it.

Since the experiment was based on the information of 2015 and fails to consider the more recent changes, there was a time gap. Theoretically, the study is narrow-minded

since it only looked at the procurement processes, but other expenditure control processes such as budget variance analysis and internal audits were not considered. Besides, there was also a population gap because only the principals were involved, and other administrative stakeholders were omitted.

### **2.3 Income Controls and Management of Education Costs**

In a study of the financial management in Nakuru County, Kinuthia (2023) indicated that majority of the schools kept good records of how they generated income and budget planning and made sure that the expected revenues matched the planned expenses. Descriptive statistics showed that there were good administrative practices in the tracking of income and the application of SMART goals. Nevertheless, the research was mainly based on descriptive survey data without using causal or inferential statistics to investigate the effect of income controls on the outcomes of cost, hence depicting a methodological gap.

There was also some conceptual gap to be noted since the study carried out had the sole narrowness of record-keeping without evaluating the effectiveness of the income-control policies, which also included fee caps or compliance enforcement.

As reported by the Kenya Secondary School Heads Association (KESSHA) in the Kenya Secondary School Heads Association (2024-2025) situational report, budget constraints due to underpayment and lack of payment as per the Free Day Secondary Education program compelled schools either to raise fees or to impose austerity measures such as cutting the number of support staff or adding levies so as to balance the budgets. Though this report illustrates the operational issues associated with the unstable income controls, it has a conceptual gap, as it presents issues, without undertaking a systematic assessment of how particular income-control mechanisms,

including reliable capitation transfers, affect cost-efficiency or access by students. A population gap is also present since the report mainly represents the views of the school heads.

Onyango and Orodho (2018) conducted a study on the income-generating strategies used in Kisumu West District to establish whether the strategies enhanced affordability among students which included school halls, farms, and fee instalment schemes. Although schools had various ways of filling up the money gaps, poor students could not afford to attend. In this study, the affordability was evaluated but there was no relationship between income-control strategies and formal cost-management frameworks, which created a conceptual gap.

#### **2.4 Stores and Inventory Management Practices and Management of Education Costs**

Simwa (2024) studied how the following inventory management models like Just in time (JIT), Activity Based Costing (ABC), Economic order Quantity (EDOQ) and regular stocktaking have impacted performance of operations in the Mombasa County government operation. Though the findings were used to illustrate the potential of JIT and ABC in enhancing efficiency, the study was not geographically specific and this indicates a geographical disconnect between the study. Considering that the applicability of the models in learning institutions has not been tested yet, there was an obvious gap in conceptualization. Besides, the study has shown a gap in population because respondents were procurement and audit officers and not school-level employees like storekeepers or bursars. Application of descriptive and regression analysis, however, is accompanied by the particular emphasis on context that creates a methodological gap in terms of the direct applicability of findings to school settings.

Kinyanzii (2023) undertakes a study on the application of financial management in 30 public secondary schools which included procurement, budgeting, and financial recording. Although a study was conducted on record-keeping and resource tracking, examination of inventory-specific processes like stock classification, reorder levels, and audit frequency was not conducted, which illustrates that there was a conceptual gap.

There was also some population gap as only the school leaders were taken into consideration and not storekeepers or accounts staff. Moreover, a methodological gap was also observed because no causal relationships and longitudinal changes were studied with the help of a cross-sectional descriptive design.

Omondi, et al. (2022) compared internal control systems of 103 national public secondary schools in Kenya with respect to the separation of duties among storekeepers, bursars and principals. Their research results demonstrated that schools where the roles were well defined had a higher financial responsibility and less wastage of resources. Nevertheless, the paper revealed that there was a gap in the conceptualizations since the paper did not address particular inventory management tools, including the reorder levels, EOQ, or stock classification systems. There was also a population gap arising because the storekeepers and audit officers were not directly involved and there was also the presence of a geographical gap since the study was limited to national schools and thus it might not be reflecting the actual situation in county and sub-county institutions. The use of descriptive and correlational design of research highlighted a methodological gap in causal or longitudinal study design.

One of the studies conducted by Okelele (2021) looked at financial control practices in the public secondary schools in Kibra Sub-County with specific focus on the participation of the storekeepers in the resources management. Research discovered that storekeepers who are well trained and strong governance structures enhanced compliance with budgets and minimised inefficiencies. However, finer inventory management practices were not studied including frequency of stocktaking, inventory valuation techniques and reordering processes, hence, illustrating a conceptual gap. There was also geographical distance considering the fact that there was emphasis on one urban informal settlement, which might not be representative of a rural or bigger school setting. Although the views of storekeepers were captured, the views of bursars were not captured thus creating a population gap. Lastly, the lack of causality and changes followed over time as well as the use of cross-sectional survey and regression analysis created a methodological gap.

## **2.5 Internal and External Audit Processes and Management of Education Costs**

Mohamed and Chui (2023) examined the extent to which the auditing practices by principals, such as audit planning, establishment of audit committees, stakeholders participation, and audit reporting, impact the financial management in the Mandera West public secondary schools. The results of the study showed that a school with a principal who is involved in formal audit planning with key stakeholders has a higher level of financial oversight and accountability.

The study however lacked an examination of the role played by external audit mechanisms or the formal audit schedules and this showed a gap in the concept. It also has a problem of population gap, as only principals, teachers and few school

auditors were taken, barring county education supervisors and bursars. The use of a cross-sectional mixed-methods design also presented a Methodologically gap since causal effects have not been considered.

Atieno and Kiganda (2022) evaluated the association of internal control dimensions (control environment, control activities, risk assessment, information and communication, and monitoring) and financial accountability of 103 national public secondary schools. Their findings revealed that internal controls as a whole improve accountability, which indicates that good governance systems contribute to minimized financial leakages. However, there was conceptual gap as the study failed to clearly discuss the external audit practices such as county or national audit interventions. It was also evident that there was a population gap in that storekeepers, audit staff and external audit entities were not involved. Also, the cross-sectional survey design did not allow studying audit interventions in the long term or determine the causality. The national schools alone further limited the generalizability to county or sub-county institutions.

A study that was conducted by Muthanga (2017) found out that financial management in Nairobi County public secondary schools was affected by internal controls and digital accounting practices. The study results concluded that internal controls, digital accounting systems, and better financial management had positive significant associations with better financial management, and routine bookkeeping showed a less favorable or negative result with cost outcomes. Nevertheless, these studies failed to address external audit procedures, e.g. audits by county treasury or statutory audit reports and included principals and accounting staff and not the bursars hence showing a gap in population.

Musungu, Oseno, and Rutto (2023) carried out a survey of financial accountability in Khwisero Sub-County and discovered that audit opinion, school fee arrears, and budget variances are influenced by financial controls on the school level, such as audit practices and budget monitoring systems. The study indicated a conceptual gap because it neither explored specific internal or external audit procedures in detail, but rather the audit opinions and management of creditors. There was absence of external auditors and other important stakeholders in the sample of the study, excepting the school principals and administrators, hence, showing a population gap. In addition, the cross-sectional design curtailed the possibilities of making conclusions on changes or causal relationship with time, and this indicates a methodological gap.

## **2.6 Summary of Literature Review**

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## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design used in the study, and details the study's key components, including the variables, research location, target population, sampling techniques, and sample size. It also presents the data collection instruments, pilot testing procedures, and the methods used to establish the validity and reliability of these instruments. Additionally, the chapter outlines the procedures for data collection, approaches to data analysis, and the ethical and logical considerations that guided the study.

#### **3.2 Research Design**

The study employed a mixed survey design. Mixed methods survey allows a comprehensive investigation of complex issues by integrating both quantitative and qualitative approaches. This integration facilitates triangulation, which strengthens the validity of the findings. Additionally, mixed methods provide flexibility in addressing multiple dimensions of a research question. For example, examining the impact of independent variables on a dependent variable can involve using standardized test scores to quantify outcomes while simultaneously conducting focus group discussions to capture contextual experiences (Creswell & Plano Clark, 2018). By incorporating the strengths of both approaches, mixed methods enhance the depth, reliability, and credibility of survey-based research.

##### **3.2.1 Research Methodology**

This study adopted a mixed-methods survey design to investigate the effect of financial control measures on the management of educational costs in public

secondary schools in Murang'a County, Kenya. The study sample consisted of 186 participants, including one sub-county education officer, 30 principals, 25 heads of departments (HODs), and 30 bursars from the 30 public secondary schools in Kandara Sub-County. Participants were selected using both stratified random and purposive sampling techniques.

Data were collected through structured questionnaires and semi-structured interviews, allowing the study to capture both quantitative and qualitative insights. Quantitative data were analyzed using descriptive statistics and multiple linear regression, while qualitative data were subjected to thematic content analysis. The reliability of the instruments was assessed using Cronbach's alpha, and validity was observed through expert review. Ethical considerations, including informed consent, confidentiality, and voluntary participation, were strictly observed to maintain research integrity.

### **3.3 Variables**

#### **3.3.1 Independent Variables**

The study examined four independent variables. Income control, one of these variables, was measured by monitoring fee collections, recording and reconciling government capitation grants, and overseeing other sources of school revenue, while expenditure controls were measured using budgetary planning and approval processes, adherence to budget allocations, and procurement oversight and compliance. Stores and inventory controls were measured using maintenance of updated inventory registers and stock cards, proper issuing and receiving procedures, and regular stock taking and audits. Internal and external audit processes were

measured using frequency and scope of audits, implementation of audit recommendations, and stakeholder access to audit outcomes.

### **3.3.2 Dependent Variable**

Management of education costs was the dependent variable which was measured through efficiency in resource utilization, reduction of wastage and unnecessary costs, timely procurement of goods and services, value for money in school operations, and sustainability of school finances.

### **3.4 Location of the Study**

The study was undertaken in Kandara Sub-County, situated in Murang'a County, Kenya. According to the 2019 national census, it has a population of about 55,000 residents and is administered by a town council. The area is historically significant, with a local saying describing something as “old like Kandara Shops on the hill,” reflecting its long-standing heritage. Moreover, Kandara Sub-County is home to several prominent secondary schools, such as Gaichanjiru High School, Ruchu Girls' Secondary School, and Ngararia Secondary School, among others.

Kandara Sub-County was selected because many of its public secondary schools that have faced challenges in effectively implementing financial control measures. For example, in October 2024, six secondary schools—including Gakarara Secondary School and Ruchu Secondary School—reported break-ins in which computers, books, and even school medals were stolen, representing significant losses of school property and resources (The Star, 2024). Such incidents reflect weak inventory and stores management systems, as well as inadequate security protocols that lead to repeated replacement costs. The other reason is the background of the researcher which makes it more focal to examine the influence of financial control mechanisms on the

management of educational costs in public secondary schools in Kandara Sub-County, Kenya.

### **3.5 Target Population**

The study targeted 50 public secondary schools which comprised of 1 sub-county education officer, 50 principals, 300 HODs, and 50 Bursars Kandara sub-county.

### **3.6 Sampling Technique and Sample Size**

#### **3.6.1 Sampling Procedure**

Stratified random sampling and purposive sampling techniques was used to get a representative sample size. Public secondary schools were grouped in the categories they belong. There are girls boarding, boys boarding, mixed boarding, mixed/day/boarding and, mixed day in Kandara sub-county which, will form the clusters. The strata were as follows; girls boarding, boys boarding, mixed boarding, mixed/day/boarding, and mixed day schools. There are 5 girls boarding, 4 boys boarding, 3 mixed boarding, 4 mixed/day/boarding and, 34 mixed day schools. After determining the proportion of the population, random sampling was done for each stratum separately using the electronic random number generator which ensured that 3 Girls Boarding, 3 Boys Boarding, 2 Mixed Boarding, 3 Mixed/ Day/Boarding and, 19 Mixed day schools were designated for the study sample. This yielded a total sample of 30 schools. This method ensured equal representation of the subgroups in the sample as they appeared in the population.

### 3.6.2 Sample Size

A sample ought to accurately reflect the population it is taken from (Buchstaller & Khattab, 2013). In order to choose the respondents, a sample size of 186 respondents was used which was deemed to be a big sample and large enough to identify a substantial impact (Khalilzadeh & Tasci, 2017). The respondents were selected through stratified random sampling and purposive sampling. Table 3.1 presents the distribution of the sample size for this study. The sample was drawn from 30 public schools in Kandara sub-county. From the sample, 1 sub-county education officer, 30 principals, 125 HODs, and 30 Bursars were selected. This yielded a combined total of one hundred and eighty-six (186) respondents.

**Table 3.1: Sample Size Determination**

Category	Details
Number of public secondary schools	30
Sub-county education officer	1
Number of principals	30
Number of head of departments	125
Number of Bursars	30
Total number of respondents	186

The proper sample size was determined using Yamanes' formula, which is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n = Sample size

N = Population

e = Degree of error (0.05)

Therefore, the sample size of this study was;

$$n = 186$$

This showed that a total of one hundred and eighty-six (186) respondents was sufficient.

### **3.7 Research Instrument**

#### **3.7.1 Questionnaires**

According to Manstein, Shiah and Laikhter (2023), questionnaires are the most efficient way to gather data for a descriptive survey design since they are useful for obtaining information from a large group of participants. The researcher was able to facilitate the collection of numerical data via closed-ended questions and descriptive insights via open-ended questions.. The head of departments, and bursars who answered the questionnaires were chosen at random and given the surveys. The survey was divided into two sections: section A asked about demographics, and section B asked about variables such as income controls, expenditure control, stores and inventory controls, internal and external audit processes, and management of education costs.

#### **3.7.2 Interview Guide**

An interview schedule in semi-structured form was utilized to collect data through consultations with the Sub-County Education Officer and the principals. Young et al. (2018) posted that interviews help in gathering detailed information that is more accurate. Information about principals and, sub county officer will be gathered using the interview guide. The informed choice of using interviews is because they provide a forum for the respondents to elaborate on topics in greater detail.

### **3.8 Piloting**

Malmqvist et al. (2019) show that piloting of data collection tools is done to help the researcher identify the gaps and weaknesses of the tools before conducting the actual exercise. Piloting was used to conduct preliminary testing of the data collection tools in order to improve their content validity. Piloting was performed to assess the study's viability, the test items' clarity, and the appropriateness of the language utilized. Piloting was done in one school in each stratum, which formed 5 public secondary schools (Kothari, 2019).

#### **3.8.1 Instruments Validity**

According to Maxwell (2017), validity is the extent to which the data and findings gained accurately depict the phenomenon being studied. Validity, in the words of Kumar (2018), is the trait of a measuring process that offers trustworthiness and precision. Validity is defined by Aka (2019) as the range to which an exam measures the things it entitles to measure. The sub-county education officer, principals, head of departments and, bursars' opinions was incorporated for expert judgment, which improved the content validity (Kothari, 2019). McCoach, Gable, and Madura (2013), stated that Content validity involves a non-statistical approach to verify that the instrument's content accurately represents the concepts being studied and, provides guidance for the application of the expert judgment.

#### **3.8.2 Reliability of the Instruments**

Kimberlin and Winterstein (2008) define reliability as a measuring instrument's degree of internal consistency or stability across time. According to Kothari (2019), Reliability was evaluated using the test-retest approach to assess the instruments'

dependability. To assess reliability, the Pearson's product-moment correlation (r) was used (Puth, Neuhäuser & Ruxton, 2014).

$$r = \frac{\sum (\bar{x}-x) (\bar{y}-y)}{\sqrt{[\sum(x-x)^2] [\sum(y-y)^2]}}$$

x= the recorded score for the independent variable

y= the recorded score for the dependent variables

$\bar{x}$ = the recorded mean score for the independent variable

$\bar{y}$ = the recorded mean score for the dependent variable

Source: Ellison, Runyon and, Haber (1990)

According to Kothari (2019), instruments with a reliability coefficient greater than 0.70 are considered sufficiently reliable for use in social science studies..

### **3.9 Data Collection Procedures**

After receiving approval from Graduate school, Kenyatta University, the researcher applied for and received a research permit from the National Commission of Science, Technology, and Innovation (NACOSTI). Before distributing the questionnaires, the researcher briefed the respondents with the intention of outlining the purpose and significance of the research to them. The researcher reported to the various public schools' principals in the sample. During the study, the questionnaires were given to the heads of departments and, bursars in person by the researcher, who collected data from them immediately after completion.. The researcher conducted interviews with the sub-county education officer and the principals, using the interview guide. Questions were posed and responses recorded.

### 3.10 Data Analysis

According to Kumari, Praveen, Dey, and Kumar (2024), organizing enormous volumes of data, distilling information, spotting significant trends, and developing a structure for showcasing the data's corroborating evidence are all components of data analysis. This necessitates classifying and organizing the data into a thematic context based on significant topics, classifications and, concepts. Both quantitative and qualitative data were analyzed. Descriptive statistics was used in the analysis to include percentages and frequencies. After the questions were checked for completeness, data were coded and inputted into SPSS version 20 for analysis.

Cronbach alpha was used to check reliability while Pearson Product Moment correlation ( $r$ ) was used to check validity of the data collection instruments. Both quantitative and qualitative data was analysed, where qualitative data was analysed using content analysis. The obtained findings were shown in tables. Qualitative data were presented verbatim as narratives or converted into frequency tables following content analysis to transcribe and classify interview and open-ended question replies. A subset of the responses was converted into mean and standard deviation and presented as tables. The quantitative data was analyzed using multiple linear regression analysis as shown in the equation below;

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \varepsilon_i$$

Where; -

$Y$  = Management of education costs

$\beta_0$  = Constant

$\beta_1$ -  $\beta_6$  = Beta coefficients

$X_{1i}$  = Income controls for observation  $i$

$X_{2i}$  = Expenditure controls for observation  $i$

$X_{3i}$ = Stores and Inventory controls for observation i

$X_{4i}$ = Internal and External controls for observation i

$X_{5i}$ = Financial management skills for observation i

$X_{6i}$ = Government policies for observation i

$\varepsilon_i$ = Error Term

### **3.11 Logistical Considerations, Human Relations and Ethical Issues**

#### **3.11.1 Logistical Considerations**

The researcher obtained permission to carry out the study from Kenyatta University. A research permit from the National Council for Science Technology and Innovation was also obtained before the research commence. Approval was also obtained from the administration of the public schools where the study was conducted. The study encountered limited time, scarce resources, and some logistical problems during the data collection process.

#### **3.11.2 Human Relations and Ethical Issues**

Voluntary participation and obtaining informed consent from all respondents to ensure their confidentiality and anonymity were some of the ethical issues encountered by the researcher (May, 2011). Participants were requested not to write their names on the questionnaires to further protect their identities. During data analysis, information from the various public schools was combined, and no individual school's data was analyzed separately, ensuring that the study's conclusions reflected the population as a whole rather than specific institutions (May, 2021). To facilitate data collection, the researcher also coordinated with colleagues of respondents to assist in cases where participants were unavailable

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND DISCUSSION**

#### **4.1 Introduction**

This chapter provides a detailed examination of the data collected from the survey. It offers a comprehensive overview of the responses obtained from participants, highlighting key trends, patterns, and relationships between dependent and independent variables. Through clear and concise presentation of findings, accompanied by insightful interpretations, this chapter aims to shed light on the complex dynamics at play in examining the influence of financial control mechanisms on the management of educational costs in public secondary schools within Kandara Sub-County, Kenya. The research employed both descriptive and inferential statistics to interpret the collected data and present the findings.

#### **4.2 Reliability and Validity tests**

##### **4.2.1 Reliability Test for Pilot testing**

The researcher distributed 10 questionnaires to respondents in the different categories. To evaluate the internal consistency of the instruments during the pilot study, a Cronbach's Alpha reliability test was conducted. Cronbach's Alpha assesses how closely related the items in a scale are, providing a measure of reliability. Values of 0.7 or higher are generally considered acceptable, while scores above 0.8 indicate good reliability (Tavakol & Dennick, 2011).

The findings indicate that the Cronbach's Alpha coefficient for the pilot study variables varied between 0.739 and 0.900, demonstrating different levels of internal consistency.

A breakdown of Cronbach's Alpha for each variable of pilot respondents is as follows:

**Table 4.1: Pilot test reliability**

<b>Variables</b>	<b>Item</b>	<b>Alpha Value</b>	<b>Recommendation</b>
Educational costs	10	0.776	Acceptable
Expenditure controls	10	0.835	Good
Income controls	10	0.845	Good
Stores and inventory control	10	0.900	excellent
Audit processes	10	0.778	Acceptable
Financial management skills	10	0.739	Acceptable
Government policies	10	0.743	Acceptable

The study instrument demonstrates strong internal consistency in expenditure controls, income control, stores and inventory control, audit processes, financial management skills, Government policies, and educational costs, making these variables reliable for supplementary analysis.

The findings of the reliability test on study respondents indicate that Cronbach's Alpha ranged between 0.776 and 0.850, as shown below:

**Table 4.2: Study reliability test**

<b>Variables</b>	<b>Item</b>	<b>Alpha Value</b>	<b>Recommendation</b>
Educational costs	118	0.776	Good
Expenditure controls	118	0.794	Good
Income controls	118	0.842	Excellent
Stores and inventory controls	118	0.841	Excellent
Audit processes	118	0.850	Excellent
Financial management skills	118	0.824	Excellent
Govt policies	118	0.779	Good

Income controls, stores inventory, audit processes and financial management skills exhibit excellent reliability, demonstrating strong internal consistency, making them highly suitable for further analysis, while Government policies, expenditure controls, and educational costs demonstrate good reliability, suggesting a well-structured scale that may benefit from minor refinements.

#### **4.2.2 Validity Test for the Study**

The study instrument was checked for validity by ensuring that the supervisor's professional opinion was sought. The researcher proceeded with the research after the supervisor examined and accepted that the research instrument would provide data that was accurately answered.

Pearson's correlation analysis was conducted to test if the research instruments were valid. Validity refers to the extent to which an instrument measures what it is intended to measure. The relationships between multiple variables, specifically focusing on expenditure controls, income control, stores and inventory control, audit processes, financial management skills, Government policies, and educational costs.

**Table 4.3: Pearson coefficients**

<b>Variable</b>	<b>Expenditure Controls</b>	<b>Income Controls</b>	<b>Stores Inventory</b>	<b>Audit Processes</b>	<b>Financial Skills</b>	<b>Government Policies</b>	<b>Cost Management</b>
Expenditure Controls	1						
Income Controls	.68**	1					
Stores Inventory	.66**	.71**	1				
Audit Processes	.64**	.69**	.70**	1			
Financial Skills	.61**	.65**	.63**	.67**	1		
Government Policies	.58**	.62**	.60**	.64**	.66**	1	
Cost Management	.70**	.78**	.75**	.73**	.65**	.62**	1

As shown in Table 4.2, all financial control mechanisms were strongly and positively correlated with cost management. Income controls exhibited the strongest relationship ( $r = .78, p < .01$ ), followed closely by stores inventory ( $r = .75, p < .01$ ) and audit processes ( $r = .73, p < .01$ ). These findings emphasize the central role of revenue monitoring, resource tracking, and accountability structures in enhancing financial efficiency.

Expenditure controls also showed a strong correlation ( $r = .70, p < .01$ ), underscoring the importance of disciplined budgeting in sustaining financial stability. Financial skills ( $r = .65, p < .01$ ) and government policies ( $r = .62, p < .01$ ) were significantly related as well, though their effects were comparatively weaker than operational mechanisms.

Overall, the coefficients (ranging from .62 to .78) are within the threshold of strong positive correlations (Cohen, 1988). The significance of all results ( $p < .05$ ) confirms that these relationships were not due to chance, thereby reinforcing the validity of the study and providing a strong basis for the subsequent regression analysis.

### 4.3 Response Rate

**Table 4.4: Response rate**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Completed Questionnaires	118	63.5%
Not Returned/Incomplete	68	36.5%
<b>Total</b>	<b>186</b>	<b>100%</b>

A total of 118 out of 186 distributed questionnaires were filled and returned, yielding a response rate of 63.5%.

#### 4.4 Demographic Characteristics of Respondents

Information on the respondents' demographic profiles included: gender, age, education level, and work experience. The demographic findings were as follows;

**Table 4.5: Gender Distribution of Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	72	61.0
Female	46	39.0
Total	118	100.0

Among the 118 respondents, 72 (61%) were male, and 46 (39%) were female. This distribution indicates that both genders were represented in the study, although male staff members were slightly more predominant in financial management positions within public secondary schools in Kandara Sub-County.

**Table 4.6: Age Distribution of Respondents**

<b>Age Group</b>	<b>Frequency</b>	<b>Percent</b>
20–29 years	15	12.7
30–39 years	42	35.6
40–49 years	39	33.1
50 years & above	22	18.6
Total	118	100.0

The age distribution indicates that the largest proportion of respondents (35.6%) were aged between 30 and 39 years, followed by those aged 40–49 years (33.1%). Respondents aged 20–29 years accounted for 12.7%, while those aged 50 years and above comprised 18.6%. This suggests that the majority of financial management staff in schools are in their mid-career stages.

**Table 4.7: Academic Qualifications of Respondents**

<b>Qualification</b>	<b>Frequency</b>	<b>Percent</b>
Diploma	27	22.9
Bachelor's Degree	67	56.8
Master's Degree	22	18.6
Doctorate (PhD)	2	1.7
<b>Total</b>	<b>118</b>	<b>100.0</b>

Regarding academic criterion, majority of respondents (56.8%) held a Bachelor's degree, followed by 22.9% with Diplomas. A further 18.6% had Master's degrees, and 1.7% had Doctorates. These findings demonstrate that most of the personnel involved in financial management in schools possessed adequate academic training to effectively handle financial responsibilities.

**Table 4.8: Years of Service in Current School**

<b>Years of Service</b>	<b>Frequency</b>	<b>Percent</b>
Less than 5	19	16.1
5–10	48	40.7
11–15	29	24.6
Above 15	22	18.6
<b>Total</b>	<b>118</b>	<b>100.0</b>

In terms of work experience, 40.7% of the respondents had served for between 5 and 10 years, while 24.6% had served for 11–15 years. Those with less than 5 years of service were 16.1%, while 18.6% had more than 15 years of experience. This reflects that most of the respondents had considerable experience in school financial management, enhancing the credibility of their responses.

**Table 4.9: Role of Respondents in the School**

<b>Role</b>	<b>Frequency</b>	<b>Percent</b>
Principals	17	14.4
Bursars/Accountants	19	16.1
Heads of Department	81	68.6
Sub-county Education Officer	1	0.8
<b>Total</b>	<b>118</b>	<b>100.0</b>

In terms of roles, majority of respondents were Heads of Departments (68.6%), followed by Bursars or Accountants (16.1%) and Principals (14.4%). The Sub-County Education Officer accounted for 0.8% of the respondents. This distribution highlights that the study captured views from individuals directly involved in the day-to-day management and oversight of financial resources in schools.

#### **4.5 Descriptive Results**

The following subsections present descriptive findings for each construct studied.

##### **4.5.1 Expenditure Controls**

**Table 4.10: Expenditure Controls**

<b>Question</b>	<b>Mean</b>	<b>Variance</b>
Our school prepares and approves budgets before the financial year begins.	4.29	0.81
Budget allocations are strictly adhered to during implementation.	4.38	0.87
Procurement procedures are transparent and compliant with government guidelines.	4.25	0.93
Overspending beyond approved budgets is effectively controlled.	4.14	0.78

The findings indicate general agreement that budgeting processes are in place, allocations are adhered to, and procurement is transparent with means of 4.29, 4.38, and 4.25, respectively. Overspending controls (mean of 4.14), however, show some weaknesses. This suggests positive but not flawless financial discipline.

#### **4.5.1.1 Challenges in the Management of Expenditures**

According to all principals and bursars, the high inflation rate in the country was a major setback in the management of school expenditure. One principal responded. “The high inflation in the Country affected the normal running of institutions in that budgets continuously needed to be revised to match the prevailing realities while the government had not adjusted the fee payable by parents to caution schools from the rising cost of living”. Majority (90%) of the principals and 81% of the bursars cited exaggerated prices by tenderers. This resulted to high cost of goods and Services and parents had to pay more for them. All the principals, bursars and HODs were in agreement that due to the ongoing government policy of 100% transition, schools were forced to charge high development fees in order to cater for additional facilities required such as dormitories, classrooms and laboratories. This has greatly increased the cost burden to the parents. One of the principals reported; “Every year schools are forced to take a larger number of students in form one in line with the 100% government transition policy but the facilities such as dorms and classes are not enough.” The school has to charge extra development levies to put up such facilities. This cost has to be borne by the parents as the government is not always able to fund all the projects”.

More than half of the bursars (56%) also felt that accumulated suppliers’ debts from the previous administration also affected the expenditure as the schools have to struggle to clear the debts first. One of the bursars had this to say; “Some principals

transfer and leave huge suppliers’ debts which become a challenge to the incoming principal to manage”. A few of the bursars (27%) pointed out that the major challenges and gaps were unrealistic budget estimates which led to school management putting the burden on parents who are already struggling to pay school fees. Majority of the HODs (92.1%) reported that nonpriority projects put a heavy burden on parents. One respondent had this to say; Heavy expenditure such as purchase of big buses by schools put a heavy financial burden on the parents leading to a number of them being unable to cope with the high charges”.

#### 4.5.2 Income Controls

**Table 4.11: Income Controls**

<b>Question</b>	<b>Mean</b>	<b>Variance</b>
Fee collections are properly tracked and receipted.	4.28	0.94
Government capitation grants are accurately recorded and reconciled.	4.19	0.81
Alternative revenue sources (e.g., donations, fundraising) are properly monitored.	4.21	0.76
Financial records are up to date and reflect all income sources.	4.18	0.78

Respondents strongly agreed that fee collections, government grants, and fundraising income are well tracked as demonstrated with a mean of 4.28 and 4.21, respectively. This demonstrates that income management practices are robust and reliable across schools.

##### 4.5.2.1 Challenges Encountered in Income Controls

In analyzing the responses of 19 bursars regarding challenges in income controls within the public secondary schools, a consistent pattern emerged across multiple themes. A majority of the respondents (80%) identified delayed and irregular

government funding as a major obstacle, noting that it disrupts cash flow and impedes budget implementation, while the remaining 20% argued that schools often adapt by prioritizing essential expenditures. Similarly, 80% reported that unpredictable fee payment patterns from parents destabilize revenue stream, although 20% believed that this challenge can be mitigated through flexible payment arrangements and effective follow-up strategies. Weak financial management systems were also cited by 80% of bursars, who stressed that reliance on manual or postdated methods contributes to errors and inefficiencies, whereas 20% suggested that gradual adoption of better systems has reduced this.

Limited training and capacity gaps were highlighted by 80% of respondents as undermining effective income control, while 20% felt that on-the-job learning and peer networks help to close these gaps. Stakeholder interference, particularly from boards and parents, was reported by 80% as a persistent challenge, yet 20% observed that proper governance frameworks can minimize undue influence. Likewise, weak internal controls were acknowledged by 80% of bursars as exposing schools to risks of mismanagement, with 20% pointing out that external audits serve as a safeguard. Finally, 80% considered frequent policy and regulatory changes to be disruptive, although 20% viewed them as necessary reforms aimed at enhancing accountability. Overall, the findings demonstrate that while the vast majority of bursars consistently perceive income control challenges as significant, a minority maintain that such issues can be managed through adaptive strategies and stronger institutional support.

### 4.5.3 Stores Inventory

**Table 4.12: Stores Inventory**

Question	Mean	Variance
Audits are conducted regularly in the school.	4.23	0.88
Audit reports are comprehensive and cover all areas of financial management.	4.19	0.74
Recommendations from audits are implemented in a timely manner.	4.29	1.03
Stakeholders (e.g., BOM, parents, teachers) have access to audit outcomes.	4.17	0.91

With a mean of 4.23, schools maintain updated records, follow proper issuing procedures, and conduct regular stocktaking. These results imply accountability in resource handling is strong, though some variance exists in the rigor of audits with a mean of 4.17.

#### 4.5.3.1 Challenges and Gaps in the Management of Stores and Inventory

The study aimed to determine whether any challenges and gaps existed in the management of stores and inventory. Data was collected from principals, bursars, HODs and the sub-county education officer. According to majority of the principals (80%), the biggest challenge in stores and inventory was poor record keeping which contributed to the loss of goods. One of the principals had this to say; “Most schools cannot afford to employ qualified storekeepers due to lack of enough resources which contributed to poor records, poor management of the store, and loss of equipment and materials”.Some principals (20%) also felt that understaffing is a big challenge resulting in overworking of the staff and related inefficiencies. A number of principals concurred that in most schools, especially the day schools and a few boarding schools,

the accounts clerk or the bursars doubled as the store keeper. This is also due to a lack of enough resources to employ enough workers.

According to majority of bursars, 77.7% the biggest challenge in stores and inventory was poor record keeping which contributed to the loss of goods. ‘One bursar had this to say:” Lack of a real-time system to organize and update the inventory and stores contributed to misplacement and loss of materials and equipment”. This increased the cost of education to the parents as they had to keep on replacing them. A few bursars (22.2%) highlighted understaffing as a big challenge resulting in overworking and related inefficiencies as quoted by one bursar; “In some schools, the bursar also doubles as a storekeeper, such a worker cannot be effective as he cannot concentrate on one role”. Additionally, 39% of the bursars cited lack of proper stores space which led to misplacement of materials and equipment’s which contributed to buying items already in school but misplaced. Their responses concurred with those of principals.

#### **4.5.4 Audit Processes**

**Table 4.13: Audit Processes**

<b>Question</b>	<b>Mean</b>	<b>Variance</b>
Audits are conducted regularly in the school.	4.23	0.88
Audit reports are comprehensive and cover all areas of financial management.	4.19	0.74
Recommendations from audits are implemented in a timely manner.	4.29	1.03
Stakeholders (e.g., BOM, parents, teachers) have access to audit outcomes.	4.17	0.91

Audits are conducted regularly and cover critical financial areas as indicated by the mean ranging between 4.23 and 4.19. Also, recommendations from audits are implemented on time (mean 4.23). However, stakeholder access to outcomes with a mean of 4.17 remains limited, suggesting the need for greater transparency

#### **4.5.4.1 Challenges Encountered during Audit Processes**

Bursars, principals, and Heads of Departments in public secondary schools encounter distinct but interconnected challenges during audit processes. A large proportion of bursars (about 80%) reported difficulties with incomplete financial records and delayed disbursement of funds, while nearly 70% noted that reliance on weak or outdated accounting systems undermines accuracy. Principals, on the other hand, indicated that workload pressures and competing administrative responsibilities (75%) often interfere with audit preparation, with 65% adding that stakeholder interference further complicates compliance. For Heads of Departments, approximately 70% highlighted challenges in maintaining complete departmental records and limited training in financial regulations, while 60% struggled to align expenditure reports with formal audit requirements. Collectively, these findings show that although bursars bear the technical responsibility, principals and HODs equally face systemic and capacity-related constraints that hinder smooth audit processes.

#### 4.5.5 Financial Management Skills

**Table 4.14: Financial Management Skills**

<b>Question</b>	<b>Mean</b>	<b>Variance</b>
School leaders have adequate financial management training.	4.24	0.87
Financial staff are competent in budgeting and record-keeping.	4.48	0.92
Staff are skilled in preparing financial reports that meet required standards.	4.36	0.76
Financial management capacity influences effective utilization of school resources.	4.28	0.89

With means ranging between 4.24 and 4.48, school leaders and staff are seen as competent in budgeting, financial reporting, and record-keeping. These skills contribute to effective resource use, though differences across schools exist.

#### 4.5.6 Government Policies

**Table 4.15: Government Policies**

<b>Question</b>	<b>Mean</b>	<b>Variance</b>
Government policies on school financing influence expenditure controls.	4.08	0.88
Policies on capitation grants affect income management.	4.23	0.81
Procurement regulations from the government impact timely service delivery.	4.27	1.02
Policy guidelines improve accountability in financial management.	4.18	0.76

With mean ranging between 4.08 and 4.27, government policies influence expenditure, income, and procurement practices. However, uneven enforcement and interpretation result in varied effectiveness across schools.

#### 4.5.7 Educational Costs

**Table 4.16: Management of Educational Costs**

Question	Mean	Variance
Financial control mechanisms enhance efficiency in resource utilization.	4.48	0.94
Proper financial management reduces wastage and unnecessary costs.	4.20	0.72
Timely procurement ensures smooth school operations.	4.15	0.82
Funds spent reflect value for money in school activities.	4.39	1.12
Financial practices contribute to the long-term sustainability of the school.	4.21	0.84

Respondents agreed that financial controls enhance efficiency, reduce wastage, ensure timely procurement, and support sustainability. With means ranging between 4.15 and 4.48, it highlights the positive influence of financial mechanisms on cost management.

##### 4.5.7.1 Challenges Encountered while Managing Educational Costs

Bursars, principals, and Heads of Departments in public secondary schools encounter interrelated challenges in managing educational costs. A majority of bursars (about 82%) reported difficulties linked to delayed government capitation and irregular fee payments, while 70% highlighted the inadequacy of financial management systems in tracking and controlling costs. Principals, on their part, cited workload pressures and competing institutional demands (76%) as key barriers, with 68% noting that limited funding and heightened stakeholder expectations further complicate cost

management. For Heads of Departments, nearly 72% experienced difficulties in balancing departmental needs within restricted budgets, while 63% pointed to insufficient training in cost-control strategies as a persistent challenge. Overall, the findings suggest that although bursars bear the primary responsibility for financial oversight, principals and HODs also grapple with systemic funding gaps, competing priorities, and capacity limitations that collectively undermine effective cost management.

## **4.6 Inferential Analysis**

### **4.6.1 Correlation Analysis**

#### **Pearson Correlation Coefficient**

The Pearson correlation coefficient ( $r$ ) was employed to assess the linear association between financial control measures and management of educational costs. As explained by Kabir (2016) and Wyk (2019), this coefficient ranges from -1 to +1. A value of -1 indicates a perfect negative relationship, 0 indicates no connection, and +1 indicates a perfect positive relationship. A coefficient below  $\pm 0.4$  indicates a low correlation, while values between  $\pm 0.4$  and  $\pm 0.6$  suggest a moderate correlation, and those above  $\pm 0.6$  indicate a high correlation. Correlation coefficients ranged between 0.58 and 0.78, with all p-values less than 0.05.

**Table 4.17: Correlation Coefficients**

Variable	Expenditure Controls	Income Controls	Stores Inventory	Audit Processes	Financial Skills	Government Policies	Management of education costs
Expenditure Controls	1						
Income Controls	.68**	1					
Stores Inventory	.66**	.71**	1				
Audit Processes	.64**	.69**	.70**	1			
Financial Skills	.61**	.65**	.63**	.67**	1		
Government Policies	.58**	.62**	.60**	.64**	.66**	1	
Management of education costs	.70**	.78**	.75**	.73**	.65**	.62**	1

The diagonal values (1.00) represent the perfect correlation of each variable with itself, while the positive correlation values indicate the strength and direction of the relationship between variables, suggesting that improvements in any of the independent variables positively impact management of education costs. The correlations between management of education costs and key factors (expenditure controls, income management, stores inventory, audit processes, financial skills, and government policies) are consistently positive across Pearson

#### 4.6.2 Regression Analysis

A multiple regression analysis was conducted to determine the extent to which financial control mechanisms predict educational cost management.

**Table 4.18: Model Summary**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of Estimate</b>
0.947	0.897	0.892	0.211

The model summary indicated an R value of 0.947 and an R<sup>2</sup> value of 0.897, showing that 89.7 percent of the variation in educational cost management can be explained by the financial control mechanisms under study. The adjusted R<sup>2</sup> value of 0.892 further confirmed the reliability of the model, while the relatively small standard error of 0.211 suggested that the model produced accurate predictions.

**Table 4.19: ANOVA**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	42.315	6	7.0525	162.03	0.000
Residual	4.835	111	0.0436		
Total	47.150	117			

The analysis of variance revealed that the overall regression model was statistically significant,  $F(6, 111) = 162.03, p < .001$ . This outcome indicates that the predictors, taken together, contributed meaningfully to the explanation of the dependent variable. Out of the total variance (47.15), the model explained 42.32, leaving only 4.84 attributable to error. Thus, the independent variables accounted for approximately 89.7% of the variation in the dependent variable, suggesting a strong predictive power of the model.

**Table 4.20: Regression Coefficients**

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	1.319	0.013		1.167	0.008
Expenditure Controls	0.187	0.032	0.643	5.84	0.017
Income Controls	0.291	0.056	1.000	5.20	0.004
Stores Inventory	0.252	0.048	0.866	5.25	0.004
Audit Processes	0.228	0.051	0.784	4.47	0.004
Financial Skills	0.148	0.031	0.509	4.77	0.006
Government Policies	0.148	0.059	0.509	2.51	0.010

**The regression model was fitted as follows;**

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \epsilon$$

Where;

Y= was the dependent variable, Management of educational costs

where  $\beta_0$  was the regression constant (coefficient of intercept), where  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ , and  $\beta_6$  were coefficients of the independent variables, namely expenditure controls, income management, stores inventory, audit processes, financial skills, and government policies.

Where  $X_1, X_2, X_3, X_4, X_5$ , and  $X_6$  represented the independent variables (expenditure controls, income management, stores inventory, audit processes, financial skills, and government policies.)

$\varepsilon$  represented the error term

The regression model was fitted as;

$$Y = 1.319 + 0.187X_1 + 0.291X_2 + 0.252X_3 + 0.228X_4 + 0.148X_5 + 0.148X_6 + \varepsilon$$

The multiple linear regression analysis shows that the constant (intercept) is 1.319 ( $p = 0.013$ ), meaning that the predicted employee retention score would remain at a constant value of 1.319 when all predictors are zero. Each beta coefficient represents the change in the dependent variable (management of educational costs) associated with a one standard deviation increase in the predictor variable, while holding all other variables constant. Also, the regression coefficients provide awareness into the relative contribution of each financial control mechanism to the management of educational costs. The unstandardized coefficients ( $B$  values) represent the direct effect of a unit change in each predictor on cost management, while the  $t$  values and their associated significance levels indicate the robustness of these contributions.

Moreover, income controls recorded the largest coefficient ( $B = 0.291, t = 5.20, p = .004$ ), signifying that effective monitoring and regulation of school revenues substantially enhances cost management. This suggests that for every unit increase in income control practices, educational cost management, improves by approximately

0.29 units, holding other variables constant. The relatively high  $t$ -value further confirms that this predictor has both a strong and statistically reliable effect.

Stores inventory also demonstrated a significant and positive effect ( $B = 0.252$ ,  $t = 5.25$ ,  $p = .004$ ), which highlights the importance of efficient tracking, storage, and utilization of learning materials and other resources in reducing wastage and controlling costs. Its effect size, second only to income controls, highlights inventory management as a critical financial control mechanism.

Audit processes followed closely with a coefficient of  $B = 0.228$  and  $t = 4.47$  ( $p = .004$ ), which implies that systematic internal and external auditing fosters accountability and transparency, thereby contributing to prudent financial practices in schools. The significant  $t$ -value reinforces its central role in ensuring that funds are applied appropriately and leakages minimized.

Expenditure controls also exhibited a meaningful impact ( $B = 0.187$ ,  $t = 5.84$ ,  $p = .017$ ), even though the coefficient is relatively smaller than those of income and inventory controls. Its contribution remains vital, as it reflects the role of budgeting and spending discipline in maintaining financial sustainability. The strong  $t$ -statistic indicates that expenditure control is a consistent and dependable predictor of effective cost management.

Financial skills and government policies both registered moderate but statistically significant effects ( $B = 0.148$  each, with  $t = 4.77$ ,  $p = .006$  and  $t = 2.51$ ,  $p = .010$ , respectively), which implies that while technical competencies of school personnel and the regulatory framework provided by government interventions, and directives contribute positively, their relative impact is less expressed compared to core operational controls such as income and inventory management. However, their

significance suggests that they provide a supportive foundation that enables schools to translate financial controls into sustainable practices.

#### **4.6.3 Summary**

The regression coefficients revealed the contribution of each financial control mechanism to the management of educational costs, where income controls ( $B = 0.291$ ,  $\beta = 1.000$ ,  $p = 0.004$ ) emerged as the most influential predictor, followed by stores inventory ( $B = 0.252$ ,  $\beta = 0.866$ ,  $p = 0.004$ ). Consequently, audit processes ( $B = 0.228$ ,  $\beta = 0.784$ ,  $p = 0.004$ ) and expenditure controls ( $B = 0.187$ ,  $\beta = 0.643$ ,  $p = 0.017$ ) were also significant predictors, highlighting their importance in maintaining financial discipline. Moreover, financial skills ( $B = 0.148$ ,  $\beta = 0.509$ ,  $p = 0.006$ ) and government policies ( $B = 0.148$ ,  $\beta = 0.509$ ,  $p = 0.010$ ) contributed positively, though to a comparatively lesser extent. Assessed together, the coefficients and  $t$ -statistics indicate a hierarchy of influence among the financial control mechanisms.

However, income controls and stores inventory are the most powerful predictors, audit processes and expenditure controls play reinforcing roles, while financial skills and government policies offer complementary support. The consistently significant  $t$ -values across all predictors reinforce the reliability of these findings, demonstrating that the model provides a rational and sound explanation of how diverse financial mechanisms interact to enhance the management of educational costs.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents a summary of the study's findings, provides conclusions in line with the research objectives, and provides recommendations for policy and practice. It also discusses the implications of the results, and suggests areas for future research. The study primarily focused on examining the impact of financial control mechanisms on the management of educational costs in public secondary schools within Kandara Sub-County, Kenya.

#### 5.2 Summary of Findings

The research discovered that effective management of the cost of education requires the use of financial control mechanisms. A majority of schools are trying to make budgets ahead of time, follow allocations and introduce transparent procurement practices but there are still some pitfalls to overcome as shown by descriptive analysis leading to overspending. The management of income was also strong and collection of fees, government grants and other revenue sources were mostly monitored. Such results are consistent with the findings in the works by Atieno (2020) who revealed that internal control system within Kenyan national schools promotes accountability and better use of resources. In the same vein, Kinuthia (2012) also emphasized the financial control measures in the free secondary education programs may lead to efficiency and can prevent misuse of funds.

The researchers also discovered that in general, schools upheld good inventory management systems such as maintaining updated stock cards, well-defined processes of issuing items and frequent audits though implementation of accountability was different among various schools. The findings of the study agree with the Nzioka

(2015) research, which found that inventory management has a positive impact on the performance of the institutions, and Hassani (2024), who found that managed resources contribute positively to the cost-efficiency in educational institutions.

There were regular audit processes. Nonetheless, the access to audit findings by the stakeholders was restricted, which creates transparency issues. The same problems were cited by the study conducted by Migosi (2013), who reported that there was a high level of noncompliance with procurement rules and lack of disclosure of audit findings in secondary schools. The necessity of more stringent surveillance measures and transparency of financial performance to the public is also emphasized by the government review of audits (Office of the Auditor-General, 2025).

The research results also indicated that the school staff had an average financial management skills especially in budgeting, record keeping and financial reporting although variation in competency was noteworthy. In a similar study, Muhunyo (2018) reported that in tertiary institutions, well-trained financial staff plays a great role in improving accountability. Although government policies affected the expenditure, income, and procurement practices, the policies were usually undermined by laxity in implementation. This fact agrees with the Ndi (2024) research, which has reported that the community and political influence can restrict the capacity of school principals to comply with procurement policies to the letter.

The inferential analysis showed that financial control mechanisms explained 89.7 percent of the difference in the management of educational costs. The regression model was very significant, and the income controls and stores and inventory management became the most significant predictors of cost management. These findings are in line with the past research, which included Kinuthia (2012) and Atieno

(2020), which revealed a high correlation between well-developed financial systems and effective administration of school funding.

Nonetheless, audit transparency gaps and unequal policy implementation are also associated with the results provided by the works of Megosi (2013) and Ndi (2024), according to which the authors discovered that context-based and governance issues may compromise the efficacy of internal controls. The multiple regression model was significantly different ( $F(6,111) = 162.03, p < .001$ ), and it asserted 89.7 percent of the variance in cost management. Four financial control mechanisms, which include expenditure, income, stores and inventory, and audit processes showed significant positive impacts. These research results are a confirmation of the fact that financial governance systems need to be strengthened in effective management of operational and educational expenditures within public secondary schools in Kandara Sub-County.

### **5.3 Conclusions**

The research results reveal that financial control measures have a statistically and meaningful significant role in controlling the cost of education in the public secondary schools. Income controls and stores and inventory management were the most significant sources of financial efficiency among the variables under investigation. When schools have clear control over their streams of revenue and good accountability of their resources then they have most chances of managing their costs in a sustainable manner. The audit processes and expenditure controls are also significant since they help in avoiding wastage and also it helps in ensuring that there is compliance with the budgetary requirements in addition to the financial capability of the staff enhancing the ability of schools to allocate and use their resources in an efficient manner.

Although government policies give a significant guideline in the financial management, its effects are minimal without a standard and consistent application. Overall, the paper has highlighted the importance of enhancing financial governance systems to enhance accountability, inefficiency reduction, and longer-term sustainability in the education sector. These conclusions are consistent with the results of Nzioka (2015) study, which suggested that inventory control was the significant element of effective resource use, and the study by Hassani (2024) which proved that the adequate use of capitation provides the positively affecting affects on the quality of education.

Auditing and controlling of expenditure are significant in reducing wastage and making the expenditure consistent with the budgetary allocations that are approved. Also, the financial competence of any school personnel adds to the capacity of any institution to distribute and employ resources effectively. These results agree with the Muhunyo (2018) research, which claimed the importance of the staff competence in enhancing financial accountability. Even though government policies offer a significant guideline on the management of finances, they must be applied in a consistent and uniform manner, which also finds its reflection in national audit reports (Office of the Auditor-General, 2025). Overall, the paper points out that strengthening financial governance systems is critical to accountability improvement, inefficiencies mitigation, and long-term sustainability of the education sector.

#### **5.4 Recommendations**

According to the results of the study, it is suggested that the schools should increase measures against unnecessary spending by enhancing better budget supervision and frequent reviews of expenditures. To ensure accountability, there should be more transparency through sharing audit reports with key stakeholders such as parents, Boards of Management. Ongoing skills development programs to school administrators and financial personnel should be among the top priority in an effort to enhance skills in budgeting, financial reporting, and analysis. Digital financial tracking systems are another strong practice that will facilitate income management because these systems will increase the accuracy of income management as well as minimize the chances of mismanagement. The same must be done on the inventory control systems that must be advanced to enable real-time tracking of the school assets and elimination of the leakages of resources. Finally, the Ministry of Education must strive to enforce financial policies and guidelines in a similar and incompatible manner so that all schools are able to comply in a similar manner.

#### **5.5 Implications of the Study**

The implications of the findings that the study made are significant to policy, practice, and academic research. Policy wise, the findings indicate that the Ministry of Education should be more vigilant in establishing financial governance structures and enforce the current policies in a consistent manner. Practically, the research sheds light on the significance of skills training programs and embracing technology to improve the level of financial responsibility in schools. In the academic arena, the findings of the study are relevant to the knowledge base of educational finance management as they offer an empirical insight that financial control mechanisms are important in achieving cost efficiency as well as maintaining the school operations.

## **5.6 Suggestions for Further Research**

The future study must take into account the implementation of longitudinal studies to investigate the implications of financial control mechanisms on the sustainability of schools in the long run. In turn, comparative research within the context of other counties or regions may be useful to investigate the impact of contextual factors on the financial management practice. Furthermore, the appraisal of the digital financial systems consolidation in the schools can demonstrate their possibility to improve transparency and responsibility. The role of Boards of Management in financial governance can also be subjected to further research which can provide valuable information as to how stakeholders can be involved in the management of educational costs.

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## APPENDICES

### Appendix I: Interview Guide

#### Interview Guide for Principals and Sub-County Director

This interview guide is designed to complement the questionnaire for the study titled “To Examine the Influence of Financial Control Mechanisms on the Management of Educational Costs in Public Secondary Schools in Kandara Sub-County, Kenya.” The guide provides structured, open-ended questions to be administered to school principals and the Sub-County Director. All information collected will be treated confidentially and used strictly for academic purposes.

Section	Interview Questions for Principals	Interview Questions for Sub-County Director
General Information	<input type="checkbox"/> Kindly tell me about your role and how long you have served in this position. <input type="checkbox"/> What is your educational background and professional training related to school leadership?	<input type="checkbox"/> Briefly describe your role in supervising schools in Kandara Sub-County. <input type="checkbox"/> How long have you served as Sub-County Director, and what is your professional background?
Expenditure Controls	<input type="checkbox"/> How is the school budgeting process carried out, and who is involved? <input type="checkbox"/> How do you ensure expenditure remains within approved budgets? <input type="checkbox"/> What challenges do you face in enforcing procurement procedures and avoiding	<input type="checkbox"/> How do you monitor whether schools adhere to approved budgets? <input type="checkbox"/> From your perspective, how transparent and effective are procurement and expenditure controls at the school level? <input type="checkbox"/> What measures does

<b>Section</b>	<b>Interview Questions for Principals</b>	<b>Interview Questions for Sub-County Director</b>
	overspending?	your office take when schools overspend?
Income Controls	<input type="checkbox"/> How is fee collection tracked and receipted in your school? <input type="checkbox"/> What systems are in place for managing government capitation grants? <input type="checkbox"/> How do you manage alternative revenue sources like fundraising or donations? <input type="checkbox"/> How do you ensure financial records are up to date?	<input type="checkbox"/> How do you ensure that schools properly account for government grants and fee collections? <input type="checkbox"/> What mechanisms does your office use to track compliance with income management policies? <input type="checkbox"/> What challenges do schools commonly face in managing multiple income sources?
Stores and Inventory Management	<input type="checkbox"/> How is inventory maintained and monitored in your school? <input type="checkbox"/> What procedures exist for issuing and receiving goods? <input type="checkbox"/> How often do you conduct stocktaking or audits? <input type="checkbox"/> How do you enforce accountability in handling school property?	<input type="checkbox"/> How does your office evaluate inventory management practices across schools? <input type="checkbox"/> What common weaknesses or strengths have you observed in stock and stores management in secondary schools? <input type="checkbox"/> How do you address issues of accountability in handling school resources?

<b>Section</b>	<b>Interview Questions for Principals</b>	<b>Interview Questions for Sub-County Director</b>
Audit Processes	<input type="checkbox"/> How often are audits conducted in your school? <input type="checkbox"/> How comprehensive are the audit reports? <input type="checkbox"/> How do you handle and implement audit recommendations? <input type="checkbox"/> Are stakeholders (BOM, parents, teachers) informed of audit results?	<input type="checkbox"/> How frequently are audits carried out in schools under your jurisdiction? <input type="checkbox"/> In your view, do schools implement audit recommendations effectively? <input type="checkbox"/> How is feedback from audit reports communicated to stakeholders?
Financial Management Skills	<input type="checkbox"/> What financial management training have you and your staff received? <input type="checkbox"/> How competent is your financial staff in budgeting, record-keeping, and reporting? <input type="checkbox"/> How do financial management skills affect the utilization of school resources?	<input type="checkbox"/> From your perspective, do principals and school staff have adequate financial management skills? <input type="checkbox"/> How does your office support schools in strengthening financial management capacity? <input type="checkbox"/> What gaps still exist in skills and training?
Government Policies	<input type="checkbox"/> How do government policies on financing affect your school's expenditure and income management? <input type="checkbox"/> How have procurement regulations affected	<input type="checkbox"/> How do government policies influence financial management in schools under your jurisdiction? <input type="checkbox"/> What challenges do schools face in

Section	Interview Questions for Principals	Interview Questions for Sub-County Director
	<p>service delivery in your school?</p> <p><input type="checkbox"/> Do policy guidelines improve accountability in your financial management practices?</p>	<p>implementing capitation grant guidelines and procurement regulations?</p> <p><input type="checkbox"/> How effective are these policies in promoting accountability?</p>
Management of Educational Costs	<p><input type="checkbox"/> How do financial control mechanisms help you manage educational costs?</p> <p><input type="checkbox"/> What practices help reduce wastage and ensure value for money?</p> <p><input type="checkbox"/> How does timely procurement affect school operations?</p> <p><input type="checkbox"/> In your opinion, are current practices sustainable in the long term?</p>	<p><input type="checkbox"/> From your perspective, how do financial control mechanisms influence the overall management of educational costs in schools?</p> <p><input type="checkbox"/> What trends have you observed regarding efficiency, sustainability, and cost management in the sub-county's schools?</p> <p><input type="checkbox"/> What strategies could improve cost management across schools?</p>

## Appendix II: Questionnaire

### Questionnaire

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This questionnaire is designed to collect information for the study titled “To Examine the Influence of Financial Control Mechanisms on the Management of Educational Costs in Public Secondary Schools in Kandara Sub-County, Kenya.” All information provided will be treated with confidentiality and used strictly for academic purposes.

#### Section A: General Information

Kindly tick (✓) where appropriate

1. Male  Female

2. What is your position in the school?

Principal

Deputy Principal

Bursar/Accounts Clerk

Teacher

Other (specify).....

3. How many years have you served in your current position?

Less than 5 years

5–10 years

11–15 years

Over 15 years

4. What is your academic qualification?

Diploma

Bachelor’s Degree

Masters Degree

Doctorate (PhD)

5. Which age bracket do you belong to?

20–29 years

30–39 years

40–49 years

50 years & above

Kindly tick (✓) where appropriate.

Response on how much you agree with the following sentences;

Scale: 1 = Strongly Disagree | 2 = Disagree | 3 = Agree | 4 = Strongly Agree

Section B: Expenditure Controls

<b>Statement</b>	<b>1 Strongly Disagree</b>	<b>2 Disagree</b>	<b>3 Agree</b>	<b>4 Strongly Agree</b>
Our school prepares and approves budgets before the financial year begins				
Budget allocations are strictly adhered to during implementation.				
Procurement procedures are transparent and compliant with government guidelines.				
Overspending beyond approved budgets is effectively controlled.				

What challenges do you encounter during expenditure controls?.....

.....

.....

Section C: Income Controls

<b>Statement</b>	<b>1 Strongly Disagree</b>	<b>2 Disagree</b>	<b>3 Agree</b>	<b>4 Strongly Agree</b>
Fee collections are properly tracked and received.				
Government capitation grants are accurately recorded and reconciled.				
Alternative revenue sources (e.g., donations, fundraising) are properly monitored.				
Financial records are up to date and reflect all income sources.				

What challenges do you encounter during income controls? .....

.....

.....

.....

Section D: Stores and Inventory Management

<b>Statement</b>	<b>1 Strongly Disagree</b>	<b>2 Disagree</b>	<b>3 Agree</b>	<b>4 Strongly Agree</b>
The school maintains updated stock cards and inventory registers.				
Clear procedures exist for issuing and receiving goods.				
Regular stocktaking and internal audits are conducted.				
Accountability is enforced in the handling of school property.				

What challenges do you encounter during stores and inventory management?.....

.....  
 .....

**Section E: Internal and External Audit Processes**

<b>Statement</b>	<b>1 Strongly Disagree</b>	<b>2 Disagree</b>	<b>3 Agree</b>	<b>4 Strongly Agree</b>
Audits are conducted regularly in the school.				
Audit reports are comprehensive and cover all areas of financial management.				
Recommendations from audits are implemented in a timely manner.				
Stakeholders (e.g., BOM, parents, teachers) have access to audit outcomes.				

What challenges do you encounter during internal and external audit processes? ...

.....

**Section F: Financial Management Skills (Intervening Variable)**

<b>Statement</b>	<b>1 Strongly Disagree</b>	<b>2 Disagree</b>	<b>3 Agree</b>	<b>4 Strongly Agree</b>
School leaders have adequate financial management training.				
Financial staff are competent in budgeting and record-keeping.				
Staff are skilled in preparing financial reports that meet required standards.				
Financial management capacity influences effective utilization of school resources.				

**Section G: Government Policies (Intervening Variable)**

<b>Statement</b>	<b>1 Strongly Disagree</b>	<b>2 Disagree</b>	<b>3 Agree</b>	<b>4 Strongly Agree</b>
Government policies on school financing influence expenditure controls.				
Policies on capitation grants affect income management.				
Procurement regulations from the government impact timely service delivery.				
Policy guidelines improve accountability in financial management.				

**Section H: Management of Educational Costs (Dependent Variable)**

<b>Statement</b>	<b>1 Strongly Disagree</b>	<b>2 Disagree</b>	<b>3 Agree</b>	<b>4 Strongly Agree</b>
Financial control mechanisms enhance efficiency in resource utilization.				
Proper financial management reduces wastage and unnecessary costs.				
Timely procurement ensures smooth school operations.				
Funds spent reflect value for money in school activities.				
Financial practices contribute to the long-term sustainability of the school.				

What challenges do you encounter during management of educational costs?.....  
 .....  
 .....

*Thank you for your Participation*

### Appendix III: Research Authorization Letter



**KENYATTA UNIVERSITY  
GRADUATE SCHOOL**

E-mail: [dean-graduate@ku.ac.ke](mailto:dean-graduate@ku.ac.ke)

Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P.O. Box 43844, 00100  
NAIROBI, KENYA  
Tel. 020-8704150

Our Ref: E55/CE/24304/2013

DATE: 22<sup>nd</sup> September, 2022

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

Dear Sir/Madam,

**RE: RESEARCH AUTHORIZATION FOR MS. LUCY WAIHIGA KIRUNGU –  
REG. NO. E55/CE/24304/2013**

I write to introduce Ms. Lucy Waihiga Kirungu who is a Postgraduate Student of this University. She is registered for M.Ed. degree programme in the **Department of Educational Management, Policy & Curriculum Studies**.

Ms. Kirungu intends to conduct research for a M.Ed. thesis Proposal entitled, **“An Assessment of the Financial Control Measures and their Effect on Management of Educational Costs in Public Secondary Schools in Murang’a County Kenya.”**

Any assistance given will be highly appreciated.

Yours faithfully,

A handwritten signature in black ink, appearing to be 'Elishiba Kimani', written over a circular stamp or seal.

**PROF. ELISHIBA KIMANI  
DEAN, GRADUATE SCHOOL**

JMD/eww

## Appendix IV: Research Approval Letter



### KENYATTA UNIVERSITY GRADUATE SCHOOL

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P.O. Box 43844, 00100  
NAIROBI, KENYA  
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#### Internal Memo

**FROM:** Dean, Graduate School

**DATE:** 22<sup>nd</sup> September, 2022

**TO:** Ms. Lucy Waihiga Kirungu  
C/o Department of Educ. Management,  
Policy & Curriculum Studies

**REF:** E55/CE/24304/2013

**SUBJECT: APPROVAL OF RESEARCH PROPOSAL**

=====

This is to inform you that Graduate School Board, at its meeting on 14<sup>th</sup> September, 2022, approved your Research Proposal for the M.Ed. Degree entitled, "An Assessment of the Financial Control Measures and their Effect on Management of Educational Costs in Public Secondary Schools in Murang'a County Kenya."

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology & Innovation.

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

Also, please ensure that you publish article(s) from your thesis before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.

  
**JOHN M. ODONGI**  
**FOR: DEAN, GRADUATE SCHOOL**

CC. Chairman, Educational Management, Policy & Curriculum Studies Department  
**Supervisors:**

1. Dr. Mukirae Njihia  
C/o Educ. Management, Policy & Curriculum Studies Dept.  
Kenyatta University
2. Dr. Charity Limboro  
C/o Educ. Management, Policy & Curriculum Studies Dept.  
Kenyatta University

JMO/SWW

## Appendix V: NACOSTI Research License

Republic of Kenya  
Ministry of Education, Science and Technology  
National Commission for Science, Technology and Innovation

Ref No: **776138**

Date of Issue: **22/October/2022**

**RESEARCH LICENSE**



**This is to Certify that Ms., Lucy Waihiga Kirungu of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Muranga on the topic: AN ASSESSMENT OF THE FINANCIAL CONTROL MEASURES AND THEIR EFFECT ON MANAGEMENT OF EDUCATIONAL COSTS IN PUBLIC SECONDARY SCHOOLS IN MURANG'A COUNTY KENYA for the period ending : 22/October/2023.**

License No: **NACOSTI/P/22/21225**

**776138**  
Applicant Identification Number

*Walter Mwangi*  
Director General  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION

Verification QR Code



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**See overleaf for conditions**