

**FACTORS AFFECTING FINANCIAL MANAGEMENT PRACTICES IN PUBLIC  
SECONDARY SCHOOLS: A CASE OF SCHOOLS IN EMBU WEST SUB-COUNTY,  
KENYA**

**BY**

**LUCY WANJIRU NYAGA**

**A DISSERTATION PRESENTED TO THE SCHOOL OF BUSINESS AND PUBLIC  
MANAGEMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE AWARD OF DEGREE OF MASTER OF SCIENCE IN COMMERCE (FINANCE  
& ECONOMICS) OF KCA UNIVERSITY**

**NOVEMBER 2016**

## **DECLARATION**

I declare that this Dissertation is my original work and has not been previously published or submitted elsewhere for award of the degree of Master of Science in commerce.

I also declare that this contains no material written or published by other people except where due reference is made and author dully acknowledged.

Lucy Wanjiru Nyaga

Registration number 13/01252

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

I do hereby confirm that I have examined the master's Dissertation of

**LUCY WANJIRU NYAGA**

And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Dr. Edward Owino

Supervisor

## **ABSTRACT**

Financial Management deals with collection, concentration and disbursement of finances including measuring the level of liquidity, managing the cash balance and short term investments. Successful financial management involves not only avoiding insolvency but also reducing days in accounts receivables. Schools receive funds from many sources including free secondary education. It is therefore recommendable that public funds be managed effectively and used for the intended purpose. This study was conducted to evaluate the factors affecting financial management practices of public secondary schools in Embu West Sub -County, Kenya. The specific objective of this study was to find out the extent to which Board of Management practices, internal control system, budget participation and Principal's management skills affect financial management practices in public secondary schools. The researcher used descriptive study design to accomplish the research objective. Embu West Sub-County has 31 Secondary Schools and 15 schools were chosen randomly to participate in the study. The respondents of the study were School Principals, Deputy Principal, Bursars and Accounts clerks. The study therefore used a sample size of 60 respondents. Questionnaires were used to acquire data from the respondents. Cronbach's alpha technique was used to test reliability. A multiple regression model was used to test the relationship between the study variables. Simple random sampling was used to select the sample size. Primary data was collected to achieve the objective of the study. The data collected was analyzed using descriptive technique with the help of statistical package for social science (SPSS) program. Data was presented in tables and charts and interpretations made based on the research objectives. Conclusions and recommendations were drawn based on the analysis and interpretation of data collected from the respondents. The researcher suggested further research by the future researchers on factors affecting financial management practices in private schools and other counties.

## **ACKNOWLEDGEMENT**

First am grateful to Almighty God for helping me excel academically.

I am greatly indebted to my supervisor, Dr. Edward Owino for guiding me through this project. I am deeply convinced that without his support this study would have proved unmanageable.

I also thank my colleague Moses Wanjala for encouraging me during my research project, God bless you.

Finally I wish to thank the respondents of this research for taking their time to respond to my questionnaires.

## **DEDICATION**

The project is dedicated to my mother, Rose Njoki for her prayers and my dad, Johnson Nyaga who laid my academic foundation.

## TABLE OF CONTENTS

<b>ABSTRACT</b> .....	<b>iii</b>
ACKNOWLEDGEMENT.....	iv
<b>TABLE OF CONTENTS</b> .....	<b>vi</b>
<b>ABBREVIATIONS AND ACRONYMS</b> .....	<b>viii</b>
<b>DEFINITION OF TERMS</b> .....	<b>ix</b>
<b>LIST OF FIGURES</b> .....	<b>x</b>
<b>LIST OF TABLES</b> .....	<b>xi</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>INTRODUCTION</b> .....	<b>1</b>
1.1 Background to the Study.....	1
1.2 Statement of the Problem.....	5
1.3 Objectives of the Study.....	8
1.4 Research Hypothesis.....	8
1.5 Scope of the Study.....	9
1.6 Significance of the Study.....	9
1.7 Justification of the study.....	
.....	9
<b>CHAPTER TWO</b> .....	<b>10</b>
<b>LITERATURE REVIEW</b> .....	<b>10</b>
2.1 Introduction.....	10
2.2 Theoretical review.....	10
2.3 Empirical Review.....	12
2.4 Research Gap/Knowledge.....	18

2.5 Conceptual framework.....	19
2.6 Operationalization of Variables.....	20
<b>CHAPTER THREE.....</b>	
.....	<b>21</b>
RESEARCH METHODOLOGY.....	21
3.1 Introduction.....	22
3.2 Research Design.....	22
3.3 Target Population.....	22
3.4 Sampling Technique.....	23
3.5 Research Instruments.....	24
3.6 Data Collection Procedure.....	24
3.7 Data Analysis.....	25
3.8. Ethical Consideration.....	26
<b>CHAPTER FOUR.....</b>	<b>27</b>
<b>DATA ANALYSIS, PRESENTATION, FINDINGS AND DISCUSSION.....</b>	<b>27</b>
4.1 Introduction.....	27
4.2 Response Rate.....	27
4.3 Reliability of Data collection Instruments.....	27
4.4 General information of the Respondents.....	27
4.5 Factors Affecting Financial Management Practices in Schools.....	30
<b>CHAPTER FIVE.....</b>	<b>55</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS.....</b>	<b>55</b>
5.1 Introduction.....	55
5.2 Summary of Findings.....	55
5.3 Conclusions.....	58
5.4. Recommendations.....	59
REFERENCES.....	61
APPENDIX II: PUBLIC SECONDARY SCHOOLS IN EMBU WEST SUB – COUNTY.....	69
APPENDIX III: SCHOOLS ABOVE FIVE YEARS IN EXISTENCE.....	70

APPENDIX IV: TOTAL VARIANCE EXPLAINED.....	71
APPENDIX V: Normality Test.....	72

### ABBREVIATIONS AND ACRONYMS

<b>FM</b>	Financial Management
<b>FSE</b>	Free Secondary Education
<b>MOE</b>	Ministry of Education
<b>BOM</b>	Board of Management
<b>HOD's</b>	Head of Departments
<b>SAS</b>	Statement of Accounting Standards
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>DEC</b>	Department of Education & Culture
<b>USA</b>	United States of America
<b>PTA</b>	Parents Teachers Association
<b>UK</b>	United Kingdom
<b>DEB</b>	District Education Board
<b>DQA</b>	District Quality Assurance
<b>SA</b>	Standard Officer
<b>SPSS</b>	Statistical Package for Social Sciences
<b>KEA</b>	Kenya Education Act

## DEFINITION OF TERMS

- Financial Management:** According to [CITATION ros15 \l 1033 ], Financial management is a control system that is able to optimally utilize the available resources hence producing good results. It also involves coming up with the goals of the organization and programs which will enable the management achieve these goals.
- Accountability:** Accountability means responsibility, answerability, blameworthiness and liability (London, 2003). It can also be generally defined as rational practices to ensure responsibility by individuals and institutions, which should be implemented in all economic institutions and organizations (Velayutham and Perera 2004).
- Auditing:** Auditing is a systematic process of evaluating transactions to determine organizations compliance with prescribed policies and procedures (Simiyu, 2014).
- Budget:** Budget is part of management system that aims at promoting co-ordination and communication among subunits within the company, provides a framework for judging performance and finally motivating managers and other employees (Hongren et al, 2005)

## LIST OF FIGURES

<b>Figure 1: Conceptual Framework</b> .....	20
Figure 4.1 Years of Service in Current Position.....	<b>Error! Bookmark not defined.</b>

## LIST OF TABLES

### YTable 2.1: Operational Framework

Table 3.1: Sample size.....	23
Table 4. 1: General Information.....	28
Table 4. 2: Financial Training Enhances Financial Management Skills.....	30
Table 4. 3: What type of training have you ever undertaken?.....	30
Table 4. 4: KMO and Bartlett's Test.....	31
Table 4. 5: Rotated Component Matrix <sup>a</sup> .....	33
Table 4. 6: Board of management are appointed as per lid down procedures of the MOE.....	34
Table 4. 7: BOM has a specific pattern of meeting to deliberate on financial issues.....	34
Table 4. 8: Table 4. Board of management approves all revenues and expenditure.....	35
Table 4. 9: Board of management raises question on expenditures that do not appear to conform with the budgets and approved estimates.....	36
Table 4. 10: Correlation between Board Management Practices and Financial Management.....	37
Table 4. 11: All statutory Accounting books are maintained by the Bursar/Accounts clerk.....	38
Table 4. 12: Development and other school levies are approved by the BOM.....	38
Table 4. 13: Competent finance officer are hired by the school.....	39
Table 4. 14: The auditors operates under the guidance of the MOE.....	39
Table 4. 15: Cash from other sources such as school farm are accurately and correctly recorded in the books of accounts.....	40
Table 4. 16: Correlation of Principals Management Skills and Financial Management.....	41
Table 4. 17: Budget practice procedure is in line with the MOE recommendation	42
Table 4. 18: Capital expenditure are budgeted for after wider consultations with the parents and other stakeholders.....	42
Table 4. 19: The school involves all relevant parties in preparing budget.....	43
Table 4. 20: Correlations of budget participation and financial management practices.....	44
Table 4. 21: Procurement procedures are in line with the procurement and disposal Act	45
Table 4. 22: Imprest and sundry expenditure is always within limits.....	45
Table 4. 23: All revenues received is promptly banked.....	46
Table 4. 24: There are clear procedures for dealing with frauds and theft.....	46
Table 4. 25: There are specific banks in which school accounts should be maintained.....	47

Table 4. 26: The school sticks to the budgetary allocation.....	47
Table 4. 27: All projects are completed as Scheduled.....	48
Table 4. 28: The school does not experience shortfalls in cash flow.....	48
Table 4. 29: Correlation between Internal Control Systems on Financial Management.....	49
Table 4. 30: Model Summary of the Factors Affecting Financial Management.....	52
Table 4. 31: ANOVA Analysis of the Factors Affecting Financial Management.....	53
Table 4. 32: Coefficient of the Factors Affecting Financial Management.....	54

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Financial management (FM) is an essential element in the effective running of an organization. A lot of resources are involved in running organizations and therefore to get value from those investments require a lot of transparency and accountability from the people in charge, Burke (2001). The education sector in many countries consumes very high budgetary allocation and therefore sound financial management is paramount. A lot of attention is given to education world over because of the impact it has on development. According to UNESCO (2000), low levels of education are not good on the economy of any nation. As a result, secondary education in some countries like Britain, USA, Canada, Egypt and Nigeria is fully funded by the state.

In Kenya, funding of secondary education is shared between the parents and government. According to MOE (2012), public secondary schools consume about 23% of the ministry's budget. However, even with other challenges which include salaries, development expenses which involves more levies that parents must meet. The responsibility of funds in public secondary schools is under the school principals with the approval of BOM, Department of Education and culture (2009). Their task is to ensure that schools perform well using the resources provided however, there are problems with regards to payment. Delays in receiving money from government and parents affects the quality of service delivery. It has also been noted that more often than not most school principals operate without following the budget, buy without any procurement plans and come up with nonexistent projects.

Even though education remains within the National government management, most of the schools are in the domain of counties where disregard for regulations and guidelines are left out.

The principal who is appointed through merit by the Ministry of Education has the responsibility of the day to day management of a secondary school. Secondary schools in Kenya are governed by the Board of Management (BOM) and a Parents Teachers Association (PTA). The ministry of education has the mandate to elect the BOM with a parental representation while the PTA members are elected by the parents of that particular school. While the BOG has the overall authority on all school affairs, the PTA mainly deals with resource mobilization, Simiyu (2014).

The education sector in Kenya is under the ministry of education from primary up to university level. The issue of school fees has been a limiting factor for many learners but this has slowly started to change after the start of free secondary education in both primary and secondary schools, Ngware et al, (2007). The government also provides teachers in public schools even though the ratio of teachers to pupil has been another challenge. Schools are also limited by facilities where in old schools, they need upgrading while in new schools, there are no resources to equip them and yet stakeholders expect good performance.

In order to balance the cost of education for all, the government has presented recently formulated guidelines on school fees structure which so far has not been fully enforced. According to transparency international Kenya (2010), nearly 73% of government social expenditure is channeled to education. Unfortunately, studies have established that most of school managers have no basic accounting skills in general, Kilonzo (2007). This should therefore be taken as a priority by the government so that schools are able to utilize the resources well. Ineffective financial management leads to lack of basic facilities, misplaced projects, poor learning environment and therefore poor performance which defeats the government objective of attaining vision 2030 where education has been identified as one of the key pillars. Despite introduction of uniform fees structures, some schools have continued to charge higher fees besides introducing more levies towards development with permanent projects.

### **1.1.1 Public Secondary Schools in Embu County**

Embu County is located in Eastern Kenya, it borders the following counties; Tharaka Nithi to the North, Kitui to the East, Machakos to the South, Muranga to the South West, Kirinyaga to the West, and Meru to the North West. Embu County is a geopolitical-administrative region in Kenya. It is one of the 47 Counties established under the First Schedule of the Constitution of Kenya 2010. The headquarters of the County are in Embu town which is 130 km north-east of Nairobi. Embu County has a population of 543,221 with a population density of 193 people/km<sup>2</sup> and an annual population growth rate of 1.7% in Embu and 3.0% in Mbeere, census survey (2009). The major ethnic communities in the County are the Embu, Mbeere and the Kamba. There are also found other cosmopolitan ethnic communities especially in the urban centers of the county.

There are five educational divisions in Embu County, i.e. Central, Runyenjes, Manyatta, Nembure and Kyeni. They are under Embu East, Embu West, Embu North and Mbeere North sub-counties, District Education Office Embu (2013). A common feature among secondary schools in Embu is that they have different sponsors i.e: private, church or district education board (DEB). This study will cover public schools which are funded by parents and subsidized by the government. Embu County is renowned for its numerous learning institutions. The ratio of pupil to teacher stand at 1:35 while that of student to teacher stands at 1:25. Some top secondary schools include; Kangaru girls, Kangaru boys' high school, Kyeni girls' secondary school, Kiambere school complex, Nguvu boys, and Nguvu girls' secondary school among others.

### **1.1.2 Factors Affecting Financial Management Practices**

According to Hallak and Poison (2000), there exist both internal and external factors that contribute to financial mismanagements in organizations. First, low management capacity; this entails good governance which requires suitable accounting and auditing tools. Failure to

supervise and lack of control mechanisms create great risk of mismanagement of finances like diversion or embezzlement of funds. Second, lack of professional norms; in many countries norms for education profession are lacking with only code of conduct but there is no adequate enforcement mechanism. Third, lack of transparency at each level of administration leads to creating an opportunity for financial malpractice. Fourth, absence of clear norms and regulations in public procurement and finance. Fifth, Low salaries.; Low salaries for the people in the finance department can lead to financial mismanagement and last lack of opportunity for promotion and poor prospects after retirement. This study will concentrate on the following factors that will form the objectives of the study; lack of skills, fraud and corruption, lack of planning/budgets, poor internal controls and BOM's practices.

### **1.1.3 Concept of Financial Management**

Financial Management is a system which provides frame work for which the resources of an organization are directed towards the attainment of goals of an organization, UK (2009). An effective Financial Management system is essential because it ensures transparency and accountability in the manner in which an organization finances are applied, (Burke, 2001). According to Padilla et al (2012), effective financial management practices is essential in enhancing transparency, efficiency, accuracy, accountability which enable an organization to achieve its objectives. Hendrickse 2008, noted that financial management should include keeping an accurate record of all financial transactions, linking the budget to the firm's strategic and operational plans. The government and parents invest so much money in education for the students and therefore school management is required to spend it well towards the success of the school programs. Experts in finance intimate that for effective financial management, an organization must be careful, efficient and effective. According to [CITATION ros15 \l 1033 ], Financial management is a control system that is able to optimally utilize the available resources

hence producing good results. It also involves coming up with the goals of the organization and programs which will enable the management achieve these goals.

Unfortunately, studies have established that most school managers have no basic accounting skills in the general, Kilonzo (2007). This should therefore be taken as a priority by the government that schools managers acquire some skills in FM for them to be effective. The effect of poor Financial Management include: lack of basic school facilities, misplaced priorities, poor learning environment and therefore poor performance which effectively defeats the government objective of ensuring that majority receives education by 2030. Poor performance in public secondary schools is closely related to improper financial management by school management in which case it becomes very hard for them to implement school programs, Ogbonnaya (2000). The school managers must not only use what they receive from the parents and government but they should come up with projects that generate funds to enhance the implementation of school projects.

According to Macharia (2002), effective financial management entails proper planning and budgeting. The use of budgets is the only way for the school to ensure that resources are utilized well on the right projects. To bring sanity in the education sector with regard to finances, Waihenya (2002) noted that the government must take active role in its audit function and penalize the school managers found culpable. Proper financial management in schools can be determined through goal attainment which in this study will be based on efficiency in resources utilization and commitment to budgets. Efficiency involves attaining maximum benefits towards set goals and objectives, Macharia (2012).

## **1.2 Statement of the Problem**

Despite the fact that public secondary schools receive funding from the government and from parents, there has been a persistent challenge of inadequate resources to the extent that schools

continue to increase other levies which are against the ministry of education guidelines in order to take care of the purported shortfall. Even with these levies, most of the schools don't have enough resources and they operate under poor environment. In some areas other schools have been able to take the same amount successfully hence the problem has been associated with financial mismanagement and staffs lacking basic financial skills. A review of literature indicated that there is a relationship between financial management skills and proper financial management.

According to Ogonnaya (2000), mismanagement of funds in public secondary schools has led to a lot of problems which in turn has now led to lack of achieving desired goals in education sector. He further states that the school principals lay blame on the government for low funds of secondary schools, supply of little capital equipment, institutional materials and others. The condition of secondary schools have worsened so much that the main activities have received poor attention despite the great financial contributions by the federal government and others, Bua et al, (2014).

Diversion of funds, misappropriation and imposition of unauthorized levies has always been the talk of the day. A good example, the secretary of the secondary schools management board (BOM) in different zones in Imo state during the annual conference held in march 2014, accused the principals on overspending, cooking figures, lacking skills on accounting and collusion with school Bursars, Oboegbulem (2014). Several national schools have complied with the ministry's guidelines on school fees of Kshs 53,554 p.a. but still increased the fee by Ksh. 40,000 by introducing other levies. This move is against the agreement reached in January between the ministry, teachers union and the Kenya Secondary Schools Heads Association, Daily Nation June (2016). It further stated that some schools have re-introduced levies which are catered for by the government or even scrapped.

Financial management practices in western companies have been documented in literature. A good example, Holland et al (1994) investigated financial management practices in Motorola and found out that the company had meshed part of its organization and information system with that of Citi bank to strengthen Motorola's cash management system. Cowan, (2000) found out that the US and European companies are using shared services centres (SSC) to rationalize their cash management functions. There is increased interest in understanding financial management practices of the global firm due to the growth in transactions across national borders (Cowan, 2000). Therefore financial management practices are key to school success in terms of goals and objectives.

The forensic audit carried out according to KESSP between April and September, 2010 that involved the Ministry of finance Internal Audit Department (IAD), Ministry of Education audit unit it was confirmed that ineligible expenditure was Kshs 4.2 billion. Out of this expenditure a large percentage related to physical infrastructure in schools. Unfortunately physical visit to the schools during the audit confirmed that Kshs 1.9 billion did not reach the schools. This is a clear indication that financial management is a challenge in the public secondary schools in Kenya.

There is a growing interest of both the public and government on how well the funds provided for the implementation of secondary school education are being managed hence making financial problem become a central issue, Ibh (2014). Therefore, this study sought to determine the factors affecting financial management practices in public secondary schools in Embu West Sub-County.

### 1.3 Objectives of the Study

The main objective of this study was to investigate the factors affecting financial management practices in public secondary schools in Embu West Sub - County, and the specific objectives were;

- i. To determine the influence of principal's management skills on financial management practices in Public Secondary Schools in Embu West Sub - County
- ii. To establish the effect of Budget participation on financial management practices of public schools in Embu West Sub - county
- iii. To assess the effect of internal control systems on financial management practices of public schools in Embu East Sub-county
- iv. To find out the influence of Board of management practices on financial management of public secondary schools in Embu West Sub – County

### 1.4 Research Hypothesis

For these objectives, the following hypotheses were tested

*H<sub>01</sub>: Principal's financial management skills has no significant influence on financial management practices*

*H<sub>02</sub>: Budget participation has no significant effect on financial management practices*

*H<sub>03</sub>: Board of management practices has no significant effect on financial management practices*

*H<sub>04</sub>: Internal control system has no significant effect on financial management practices*

### 1.5 Scope of the Study

This study focused on the factors affecting financial management practices in public secondary schools in Embu West Sub - County. It targeted Public Secondary Schools in Embu West Sub County. This sub county has 31 public Secondary schools according to the ministry of education.

The respondents were school Principals, Deputy Principals, Bursas and the Accounts clerk. This is because they are the ones who are involved with financial management in public schools.

### **1.6 Significance of the Study**

This study is of great importance to several groups of people. The school principals can significantly benefit from this study by getting to understand the factors affecting financial management hence be in position to deal with them. The research will benefit managers from different sectors to be able to manage finances. It is also of great benefit to scholars who are undertaking financial management courses.

### **1.7 Justification of the study**

The study was to find out the factors affecting financial management practices in public secondary school. The reason for choice was that public secondary schools receive funds from the government as compared to private schools which rely on fluctuating sources of finances. Private schools dedicate more efforts to the management of finances hence the problem is not common. The choice of public secondary schools in Embu West Sub-County was because most schools in that county experience financial constraints yet channeling of funds from the government is evident, therefore there was need to conduct a study to find out the cause of financial mismanagement.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter highlights and assesses available literature relevant to financial management practices. The literature will come from books, Journals and internet. The chapter will also aim at acknowledging and appreciating work done by other researchers on the same topic.

#### **2.2 Theoretical review**

This section presents the theories that were of importance in this study.

##### **2.2.1 Financial Agency Theory**

Financial Agency Theory is a way of checking/monitoring the work of a principal i.e. an employer by an agent i.e. an employee. The theory also emphasizes on the cost and benefits of the principal-agent relationship. Beneficial agency cost is one that increases a shareholders value while unwanted agency cost arises when management actions conflict with those of shareholders. This theory was developed by financial economists Michael C. Jensen and Management theorist William H. Meckling and they published it in the journal of financial Economics in 1976. According to Jensen and Mackling, agency relationship is a contract whereby one person who is the principal hires another person who is the agent, to perform some duties on his behalf. The principal delegates decision making authority to the agent. They further argued that the theory postulates that the principal have to deal with the issue of being in control of all the affairs in an organization. They select the agents and monitor their actions so as to ensure that they are working to their level best.

This theory is applicable to this study since secondary schools are managed Board of Management (BOM) but they employ the Bursars and Accounts clerk to manage the finance on their behalf because they don't have the financial management skills. They also delegate the decision making authority to the school principal. They then monitor how well these agents are performing their duties. They hold meetings annually to come up with strategies which will be used in the management of schools.

### **2.2.2 The Bucket Theory of Financial Management Practices**

This theory was developed by Dr. Barbara Rowe, with Kay W. Hansen and Marsha M. Peterson in 1990. The Bucket theory of FM is an approach to planning a family's financial future. Through this theory families are in a position to set and reach their financial goals and also build a sound financial foundation. They argue that for one to become financially worry-free is a very attainable goal. One can achieve it through working at it systematically using a common sense approach. According to Rowe Kay and Marsha, Bucket Theory talks about five buckets hanging in stair step fashion, each below and a little to the right of the one above it. As water flows into the top bucket the bucket begins to fill. When it reaches its capacity, the water flows over the edge and into the second bucket. The process continues until all the buckets are filled. The assumption is that the five buckets represents basic financial & priorities. The first one being basic needs i.e. food, shelter and clothing and investment of surplus finances.

The water that flows from bucket to bucket represents the resources that are owned by families. To build a sound financial base for a family, each bucket must be filled before resources are diverted to the next one. This "bucket theory" of financial management is a common sense approach to planning a family's financial future, (Rowe et al, 1990). This theory is applicable to this study since schools can use it when budgeting for their financial resources moving from basic needs to other needs like investment in entrepreneurship. Basic needs include food and

teaching/learning materials such as textbooks, exercise books, laboratory equipment's and other stationeries.

## **2.3 Empirical Review**

In this section literature is reviewed based on studies done by others on factors affecting financial management. According to Longenecker et al (2006), it is always recommendable to understand well those factors that affect management of finances. Failure to understand these factors may lead to spending a lot of energy and efforts hence no improvements in an organization performance. According to Mobeg et al (2012), every year the government channels amount of funds in public schools to cater for their needs. Despite this some schools are currently experiencing financial constraints. This may be due to lack of financial management skills by the staffs. Factors like lack of financial management skills by the principal and the Bursar, lack of government regular auditing and lack of involving the parents and teachers during the final budgeting may have a great influence on financial management of public schools. Effective financial control can prevent an organization from collapsing (Paisley, 1992).

### **2.3.1 Principal Financial Management Skills and Financial Management Practices**

Management skills are considered key factor in the management of finances. Many definitions are given with regard to this concept. According to Joo (2009), effective financial management skills should improve financial well-being in a positive way and failure to manage finances well can lead to long term negative social consequences. He further stated that financial management is mainly concerned with the good management skills. Failure to manage finances well can lead to long term consequences not only at a personal level but also for an enterprise or society, hence management skills has received increasing concern of researchers in recent years.

Management of finances in schools remains the core duty of the Bursars and Accounts clerks but it is the responsibility of the principal to ensure that resources are managed well. The principal must have a basic understanding of financial management so as to give the necessary instructions, as the head of the school. According to Brunet et al (2002), the financial Managers skills, competence and the trust that persons establishes with the head teacher are invaluable.

Many principals and BOM members do not have the necessary financial skills, Mestry (2004), hence they are not in a position to solve financial crisis in the schools. According to Atieno (2012), head teachers have many challenges when it comes to financial management. She further expounded that both the principal and District Quality Assurance and standard officer suggested that the teachers be trained on financial management.

Principal have financial limitations especially in keeping financial books like the cash book, Ogola 2007. He further noted that a head teacher who lacks proper financial management skills will have difficulties in carrying out his work. According to Simiyu (2006), the principal is recognized by the government as the accounting officer. He is therefore directly accountable to the county director of education and the BOM of which he is also required to report to the PTA on the use of school resources.

Sometimes the PTA members complain of not being provided with the necessary documents by the school heads to be in a position to monitor and even understand how finances are being spent (Onsome et al, 2004). Despite most of head teachers lacking sufficient financial management skills, it has been established that they play a major role in management of school finances in collaboration with BOM, Chepkonga (2006). Green (2005) maintained that head teachers need advance knowledge of high level financial management and strategies for handling funds in schools.

### **2.3.2 Budget Participation and Financial Management Practices**

A budget is a financial plan and a list of all expenses and revenues. It is a palm for saving, borrowing and spending. Non-profit organizations which depend more on private charitable contributions will be less likely to employ participatory governance practices, whereas on government funding will be more likely to employ participatory governance practices. Most

studies, Otley and Pollanen (2000) and Brownell (19191) agree that it is important to involve budget participation in non-profit organization to ensure performance evaluation and effective management. According to Aranya (1990), in order to gain acceptance of budget goals and increase organizational effectiveness, having low levels of both budget participation is instrumental in effective organizational strategy and job performance.

According to Kiringa (2002), the budget is increasingly being recognized as the key tool for economic management. It has also been proved that a country can have a good budget and financial system but still fail to achieve its intended target if the budget is not well managed. The goals of adopting a medium term expenditure in Kenya through budgeting have so far not been met. This is because public organizations in Kenya continue to face challenges associated with budgetary controls. According to Williams et al (1990), on his investigation on the part of Thompson's general related behavior of managers in complex, public sector organization found out that it is an important processual variable in terms of enabling organizations to achieve their goals.

School managers may come up with plans for the school but the plans may fail to work if they are not linked to the budget Mobegi et al, (2012). It is only through budgeting that schools can be able to allocate resources effectively. According to Campel (1996), it is always important for people within the school system to be involved in preparing the budget because they are part of the system and share in the operation of the whole program. It is important to scrutinize the budget at school level so as to minimize opportunities for financial mismanagement and be in a position to monitor the actual performance of the school, Ziebell (1991).

Mestry (2006) in his study revealed that schools in South Africa, budgets were poorly done while Mbogi (2012) in his study note that in most secondary schools a budget is just a document on paper and its actual implementation is a mystery. He further explained that the need

to complete urgent projects affect proper budget implementation and even pave way for misappropriation. Management of school finances is wanting because of poor budgeting for school finances, Kibogi 1998. A situation where there is no budget means that money will be spent anyhow. This gives the head teachers a chance to spend money as they wish and account for the same. Walela et al, 2015 noted that managers of secondary schools in order for them to manage their finances well, there is need for them to look ahead, establish priorities and plan the activities in the school. He examined that effective school financial management is brought about by clear long term plans and priorities. It is important that clear plans for spending the limited funds are drawn. Therefore, it is expected that for this study, budget participation would enhance the financial management of the schools.

### **2.3.3 Weak Board of Management and Financial Management Practices**

BOM's were created by the Kenya education act (KEA) in 1996 to establish a direct link between the central ministry and secondary schools. According to UNESCO 2006, BOM responsibilities were defined as overseeing school management in general and financial management in particular. It is the responsibility of the BOM to set the secondary school fees using the guidelines from the MOE, ensuring sound financial management, resource mobilization, setting of priorities for spending and ensuring that all expenditures are authorized. They also oversee school facilities and monitor student performance. According to Ngware et al 2007, BOM members are appointed by the central ministry.

Kahariza (2003), in his study revealed that most board members do not understand the financial reports presented to them, this makes them make poorly informed choices or make them make poorly informed choices or make delayed decisions indefinitely. According to Rosalid and Downs 2004, few school board members are able to learn about the school financial values and processes due to limited education or lack of time to dedicate to these matters. They

further noted that in England, a few members of the governing committee too interest in the technical details of financial management presented to them.

Kibua et al (2008), found out that the abnormal high cost of secondary education is partly due to poor governance of schools. Mobegi et al (2012), maintained that even though there are scarce literature and documentation on week secondary school governance, observation and experience show clearly that there is no clear defined governance framework and financial management systems. This has in turn resulted to corruption especially at the administration and board level with regard to procurement of school equipment, consumables, learning materials and hiring of both teaching and non-teaching staff. Mbogi et al (2012), in his study found out that ignorant BOG was one of the factors contributing to financial mismanagement in public schools. They stated that majority of BOM were illiterate and not conversant with accounting procedures. The study also showed that selection of board members was predetermined by the area member of parliament who choose people of their own interest.

#### **2.4.4 Internal Control System and Financial Management Practices**

According to Suleiman et all, 2008, internal control system is defined as the policies and procedures which are put in place to ensure that the assets of an organization are protected and they are reliable for financial reporting. Internal control of organizations is meant to ensure the efficiency and effectiveness of activities, reliability of information, compliance with applicable laws and timeliness of financial reports (Jokipii 2009 and Changahit et al, 2001). A proper internal control system ensures that the organization's manager would utilize the financial recourses in a way that will safeguard the interest of the donors and contributors, Suleiman et al, 2008.

Internal control structure includes policies and procedures on controls such as withdrawal, applications for funds and grants accounts, bank and cash, purchase, payments and monitoring, evaluation and reporting. According to Jajo (2005), controls in general involve authorization, segregation of duties, record keeping, safeguarding and reconciliation. These controls depend on the activity under consideration. The survival of an organization depends on effective financial control, Paisely (1992). He noted that managers should adopt rules and regulations so as to prevent fraud, anticipated overspending and have a continuous and accurate knowledge of the overall financial position. According to Rosalid and Downes (2004), to prevent fraud in school finances, the principal should come up with clear procedures and responsibilities. These include separating staff duties, delegation of procurement authorization and also exercise effective supervision to make sure that rules and regulations are adhered to. Kaharisa (2003) indicated that there are no proper internal auditing set up in schools and that the government auditing is irregular and hence school funds could be misappropriated.

Mobegi et al (2012), in his study noted that more than 58% of BOG chairpersons, HOD's Bursars/accounts clerks and principals who were involved in the study concluded that weak internal control mechanisms were the major factors contributing to financial mismanagements. This was evidenced by the fact that at the time of the study receipting of school money had a problem because fee registers were missing, schools had no trained storekeepers and school property was kept in deputy head teacher's offices. They concluded that all these situations led to loopholes for mismanaging school finances. Therefore to have a successful organization, it requires a proper accounting record and appropriate management control system.

## 2.4 Research Gap/Knowledge

The empirical evidence on the factors affecting financial management in Kenya since introduction of FSE in 2008 has not been fully brought to light. Most studies on Factors Affecting financial management have focused on Public sector but not on learning institutions. It is therefore apparent that the available empirical evidence on the factors affecting financial management in public schools in Embu County has not been fully exploited. Earlier researchers have not been able to correlate financial management with the factors that affect financial management in Kenya. This therefore necessitates the need to research in this area so as to bring out the relationship between financial management and factors affecting financial management particularly Embu County.

A number of studies have been conducted on factors affecting financial management in public secondary schools. In trying to address the critical issues affecting financial management various authors have had documentation on factors affecting financial management. While financial management is an important tool in measuring an organization overall performance, it is evident that studies covered have not been exhaustive enough in addressing the factors affecting financial management in public schools. The fact that there have been attempts to address financial management challenges in public institutions there is hardly any concrete study that has addressed the relationship between budgeting and financial management.

Simiyu (2014) investigated on the factors affecting cash management in public schools a case of Mombasa County. His findings showed that cash control mechanism put in place, government intervention on cash management and PTA involvement are the major factors that affect financial management. This study did not factor principal's financial management skills to be able to handle financial matters hence the need to undertake further research. The principal is involved in the day to day running of the school hence his financial management skills is a key

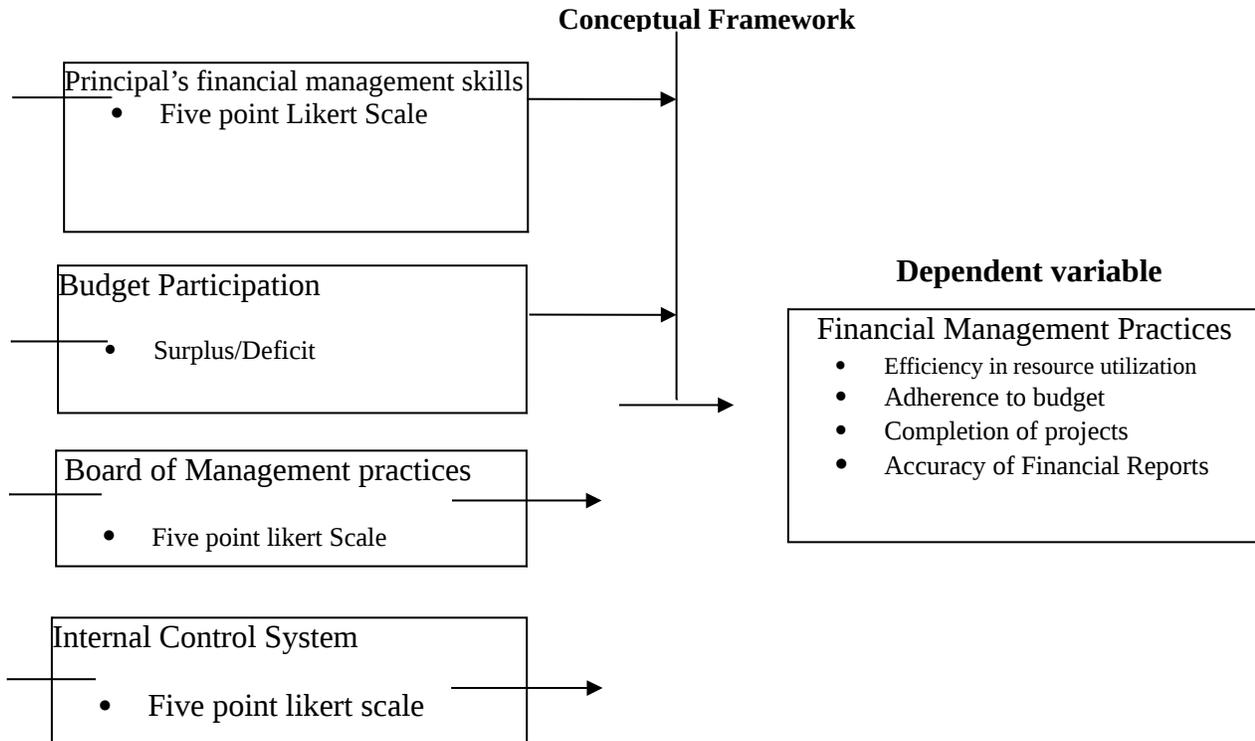
factor. This study was undertaken in Mombasa County which has different people with different perspectives from those in Embu County hence limiting application of its findings in Embu. Communities react differently in matters of financial management and this call for diversification of area of study.

Ondieki (2015) examined the factors affecting financial management in Marani sub-county by assessing the extent to which the various factors affect financial status of the school. His findings showed that only Government intervention, Students parents' involvement and financial skills of managers were significant for financial mismanagement. This study did not consider budgeting and internal controls as factors affecting financial management hence need for further research. The study also concentrated on Marani sub- County with respect to financial management which may not apply to Embu County due to differences in geographical location. Mobegi et al, 2012 examined on factors contributing to financial mismanagement & misappropriation in public schools and also considered forms of financial mismanagements. The findings showed that level of financial mismanagements in secondary schools is very high hence need for further research to find out the reason. This study did not review the strategies adopted by public schools to ensure that funds are well managed hence need for further research.

## **2.5 Conceptual framework**

A conceptual framework is a research tool intended to assist a researcher to develop awareness and understanding of the situation under review. It shows the interaction of variables both independent and dependent variables. The independent variables are those factors which affect financial management in schools.

FIGURE 1



*Source: Author (2016)*

In the model, there are four independent variables and one dependent variable.

## 2.6 Operationalization of Variables

The study operationalized the factors affecting financial management practices. The independent variables are Principal's financial management skills, Budget participation, Board of management practices and internal control system. The dependent variable is financial management practices. The following operationalization table gives the insight of how the various variables will be measured, analyzed and conclusion drawn thereafter.

**TABLE 2.1**  
**Operational Framework**

<b>Objective</b>	<b>Variable</b>	<b>Indicators</b>	<b>Measurement scale</b>	<b>Questionnaire Section</b>
To determine the influence of Principals management skills on financial management practices	<b>Independent</b> Principals management skill	Interval	Five point Likert Scale	Section B
To establish the effect of budget participation on financial management practices	<b>Independent</b> Budget participation	Interval	Surplus/Deficit	Section C
To assess the effect of internal controls on financial management practices	<b>Independent</b> Internal control system	Interval	Five point Likert Scale	Section E
To find out the influence of BOM's practices on financial management practices.	<b>Independent</b> Board of Management practices	Interval	Five point Likert Scale	Section F
	<b>Dependent</b> Financial Management practices	Quality Financial Statements Timely F. reporting Efficient utilization of resources Completion of projects	Five point Likert Scale	Section G

**Source: Author (2016)**

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter describes and explains the research methodology, research design and instruments that were used in the study. It describes the population, sampling method and data collection method. It gives description of source of data and data analysis techniques.

#### **3.2 Research Design**

Research design is a plan used to obtain answers to research question, Orodho (2005). According to Cooper & Schindler (2006), research design is a way of measuring and analyzing the collected data so as to achieve the research objective. This study adopted a descriptive research design to find out the factors affecting financial management practices in public secondary schools. This design was used as it will help the researcher to answer the questions of how, when and what. Under descriptive research the researcher adopted survey research design which involved collecting data through administering questionnaires to a sample of individuals, Orodho (2005).

#### **3.3 Target Population**

The target population consisted of school principals, Deputy Principals, Bursars and Accounts clerks of public secondary schools in, Embu West Sub County. These respondents were used to generate data on factors affecting financial management practices in public secondary schools. The unit of analysis were staffs in finance department in public secondary schools. These staffs were preferred because they deal with finances hence they were in a position to answer the research questions. Embu West Sub -County was preferred because it was the most convenient to the researcher. The sampling frame was obtained from the finance department. According to

Kombo & Trump, (2006) a sampling frame enables the researcher to come up with a way of choosing particular members of the targeted population to be interviewed in the survey. There are 31 public secondary schools in Embu West Sub - County (see appendix 11). The research targeted 15 secondary schools out of 31 selected purposively which is 48% above 30% that is recommended by Mugenda (2003). The 15 schools are the schools which have been in existence over five years. The study concentrated on public secondary schools only. Private school were excluded because they are not funded by the government through Free Secondary Education (FSE).

### 3.4 Sampling Technique

This involves showing the different ways of coming up with a sample. This study will use multi stage sampling to select 15 Public secondary schools out of the total 31 secondary then later sample the respondents from the 15 schools in Embu West Sub County. The principals, Deputy Principals, Bursars and Accounts clerk of each of the 15 schools will be the respondents. Therefore the study will have 60 respondents.

**TABLE 3.1**  
**Sample size**

<b>Target Population</b>	<b>Population Size</b>	<b>Sample Size</b>	<b>Percentage</b>
Principals	31	15	25
Bursars	31	15	25
Accounts Clerks	31	15	25
Deputy principals	31	15	25
<b>Total</b>	<b>124</b>	<b>60</b>	<b>100</b>

**Source, Author (2016)**

### 3.5 Research Instruments

This study used structured questionnaires which were constructed to enable the researcher gather information from principals, deputy principals, bursars and Accounts clerks who are directly

involved in the management of finances in public secondary schools in Embu County. The questionnaires contained items of both open and closed ended questions addressing all the research objectives. The researcher introduced himself to the respondent using a cover letter which was attached to the questionnaire.

### **3.6 Data Collection Procedure**

Data collection procedure entails the approach that the researcher takes to collect data which will be used in the study. Primary data was collected using questionnaires. Questionnaires were used because they enabled the researcher to collect information more easily and within reasonable time, Kombo et al (2006). They also provided high level of privacy to the respondent hence highly recommended. The questionnaires were administered to the principal, deputy principals, bursars and Accounts clerk of public secondary schools in Embu west sub- County.

#### **3.6.1 Validity and Reliability**

According to Orodho 2004, validity seeks to find out if an instrument will measure exactly what it is supposed to measure. This test enables the researcher to show the extent to which the measures represent the concept in the research Coopers and Schindler (2003). The researcher conduct a pilot study from Embu West sub-county where 6 principals, deputy principal, Bursars and Account clerks form the 6 schools of the population that were not sampled for the study were used in the piloting. Pilot study enabled the researcher to assess the clarity of the questionnaire questions to improve on the quality of the research instrument hence its reliability.

This a measure of the degree to which an instrument gives consistent results upon being repeatedly used (Mugenda & Mugenda 2008). An instrument is reliable when it can measure a variable accurately irrespective of the context or time. The study adopted a Cronbach's Alpha test

in determining the reliability of the instrument. Alpha values greater than 0.7 is considered reliable (Tavakol& Dennick, 2011).

### **3.7 Data Analysis**

This involves organizing and explaining the data after it has been collected. The data was analyzed using a descriptive technique which was conducted using statistical package for social science (SPSS) program. According to Martin and Acuna (2002) and Orodho (2009), SPSS program is in a position to handle huge amounts of data and it has a wide spectrum of statistical procedures which are designed for social sciences. It is also very effective. The data was coded and entered into the program to help in generating descriptive statistics. Frequencies, mean scores and percentage measures were used. Descriptive statistical analysis was also used to analyze the data collected. Regression analysis was then employed in examining the effect of the factors on financial management of schools. In this study the dependent variable is financial management while factors affecting financial management are the independent variables. The estimated regression equation took the form in the equation below.

$$FM = \beta_0 + \beta_1 PMS + \beta_2 BP + \beta_3 ICS + \beta_4 BOM + \epsilon_i$$

Where;

FM = Financial Management practices

$\beta_0$  = Constant term

PMS = Principal's Management Skills

BP = Budget Participation

ICS = Internal Control Systems

BOM = Board of Management Practices

$\beta_1$ ,  $\beta_2$ , and  $\beta_3$ , are beta coefficients of PMS, BP, ICS and BOM respectively

$\epsilon_i$  = Error Term associated with the regression model

### **3.8. Ethical Consideration**

The researcher is required to observe some ethics in the process of carrying out the research. The data collected was kept confidential and the information was treated with respect. The researcher ensured that the respondents were engaged at their own free will. The researcher also ensured originality of the data collected by citing the source. This was done to avoid plagiarism which is highly discouraged. The data collected was used for the intended purpose only.

## **CHAPTER FOUR**

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

#### **4.1 Introduction**

This chapter highlights the research findings depending on the data collected from the field. The objective of the study was to determine the factors affecting financial management practices in public secondary schools. Data was collected using questionnaires as the data collection instruments whose presentation and interpretation is given below.

#### **4.2 Response Rate**

A total of 60 questionnaires were given out and 43 questionnaires were responded to making the response rate 71.6%. This response was considerable and representative of the population and the questionnaire were therefore used in analysis.

#### **4.3 Reliability of Data collection Instruments**

The instrument was subjected to a reliability test to measure the degree to which the instrument gave consistent results upon being repeatedly used. The Cronbach's Alpha test was used in determining the reliability of the instrument. The 43 items in the instrument resulted in an alpha value of 0.805, which was greater than 0.7 and hence the instrument was considered reliable (Tavakol & Dennick, 2011).

#### **4.4 General information of the Respondents**

This section sought to identify the general information of the respondents including level of education and the period one has served in the institution. These characteristics are important because they are known to influence the variables in this study. Table 4.1 below shows the population of students per school. Most (58.1%) of the schools had a student population of less

than 500 students, while 32.6% of the schools had a population between 501-1000. This shows most of the schools received low or moderate funding from the government, given that the funding level are pegged on students numbers. In term of the type of school the findings showed that 62.8% of the schools were day schools and 32.6% were boarding schools. Considering that day schools charge lower fees than boarding schools it is most probable that most of the schools raised lower revenues by virtue of being day schools.

**TABLE 4. 1**

**General Information**

<b>Student Population in</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Less than 500	25	58.1	58.1
501-1000	14	32.6	90.7
1001-1500	1	2.3	93.0
Above 1500	3	7.0	100.0
<b>Type of school</b>			
Day	27	62.8	62.8
Boarding	16	37.2	100.0
<b>Job Position</b>			
Principal	12	27.9	27.9
Deputy principal	13	30.2	58.1
Bursar	5	11.6	69.8
Accounts clerk	13	30.2	100.0
<b>How long have you served in the current position?</b>			
1-2 years	10	23.3	23.3
3-5 years	28	65.1	88.4
5-10 years	3	7.0	95.3
Others	2	4.7	100.0
<b>Level of Education</b>			
Certificate	5	11.6	11.6
Diploma	11	25.6	37.2
Degree	27	62.8	100.0
<b>Total</b>	<b>43</b>	<b>100.0</b>	

Table 4.1 shows that on the job position most (30.2%) of the respondents were either Deputy principals or Accounts clerks, while 27.9% were principals and 11.6% were Bursars. All the

respondents were involved in the financial management of the school and hence had information on the factors likely to affect the schools financial management.

Figure 4.1 shows the years of service of the respondents. According to the findings majority of the respondents (65.1%) had worked for between 3-5 years while 23.3% of the respondents had worked for 1-2 years. This meant that they had enough information concerning the financial management of the schools.

**FIGURE 4.1**

**Years of Service in Current Position**

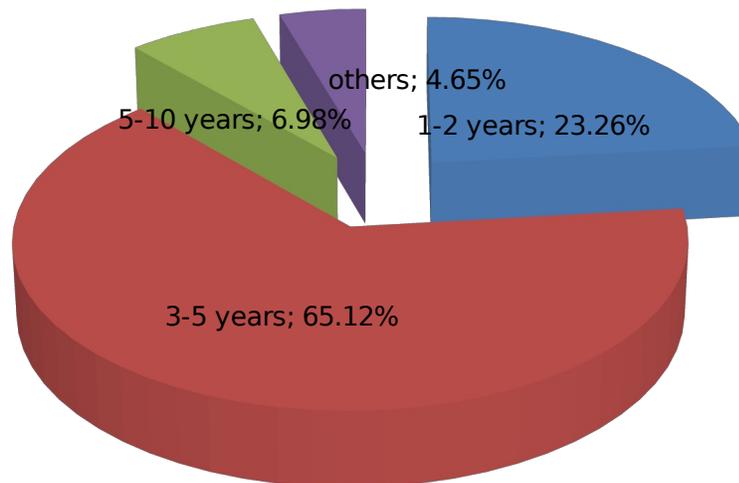


Table 4.1 further shows that most of the respondents (62.8%) had a first degree followed by 25.6% who had a diploma while few 11.6% had a certificate. This was an indication that the respondents were literate enough to engage in sound financial management of the schools. It was observed that most of the respondents (55.8%) strongly agreed that financial training enhances financial management skills, which meant that the respondent recognized the importance of financial training.

**Table 4. 2**

**Financial Training Enhances Financial Management Skills**

	Frequency	Percent	Cumulative Percent
Strongly agree	24	55.8	55.8
Disagree	19	44.2	100.0
Total	43	100.0	

The respondents who had agreed were asked to give the type of training that they had undertaken. The findings in Table 4.3 show that 20.9% of the school managers had attended a seminar, 16.3% had attended a workshop while 18.6% had gone through on the job training. This shows that the most prevalent type of training for financial managers of schools was seminars followed by workshops.

**TABLE 4. 3**

**What type of training have you ever undertaken?**

	Frequency	Percent	Cumulative Percent
Workshop	7	16.3	29.2
Seminar	9	20.9	66.7
On the job training	8	18.6	100.0
Total	24	55.8	
System	19	44.2	
<b>Total</b>	<b>43</b>	<b>100.0</b>	

**4.5 Factors Affecting Financial Management Practices in Schools**

Factor analysis was employed in addressing the main objective of this study which was to investigate the factors affecting financial management practices in public secondary schools in Embu West Sub – County. The study utilized Exploratory Factor Analysis (EFA) to reduce the many study variables into a few factors that could easily be explained. As a pre-test to EFA, the study used Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and Bartlett’s test and the results are evidenced in Table 4.4. The data set presents KMO statistics of 0.518, which was

deemed adequate for the study to proceed with factor analysis. Field (2005) recommends that  $KMO \geq 0.5$  shows that patterns of correlation are relatively compact and so factor analysis should yield distinct and reliable factors. Bartlett's Test of Sphericity shows a significant value of 0.000, which implied that a strong relationship exists amongst the variables. This makes it possible for them to cluster and hence factor analysis can be used to identify the factors that affect financial management practices in public secondary schools.

**TABLE 4. 4**  
**KMO and Bartlett's Test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.518
Bartlett's Test of Sphericity	Approx. Chi-Square	352.417
	df	153
	Sig.	.000

EFA was undertaken in two stages; Principle Component Analysis (PCA) and rotated component analysis. The initial PCA produced 7 components with Eigenvalues greater than 1, which explained 76.82% of the variations as shown by the Total Variance Explained table in Appendix iv. To explain the remaining components, the variables were rotated. The study adopted a Varimax with Kaiser Normalization rotation method and the resulting in the Rotated Component Matrix in Table 4.5 below. The varimax rotation resulted in four critical components namely: budgetary practices, internal control systems, principal financial management skills and BOM practices.

The factor budgetary practices, was explained by four variables. The variables are; The school involves all relevant parties in preparing budget with a factor loading of 0.792, Cash from other sources such as school farm are accurately and correctly recorded in the books of accounts

(0.772), There are specific banks in which school accounts should be maintained (0.635) and budget practice procedure is in line with the MOE recommendations (0.584).

The second factor was internal control system which was explained by three variables; BOM has a specific pattern of meeting to deliberate on financial issues (0.793), The auditors operates under the guidance of the MOE (0.774) and imprest and sundry expenditure is always within limits (0.508). The third factor was identified as Principal's financial management skills and it was explained by four variables namely; Competent finance officer are hired by the School (0.763), tuition fees charged is approved by the MOE (0.688), There are clear procedures for dealing with frauds and theft (0.628) and board of management are appointed as per lid down procedures of the MOE (0.553). The fourth factor was interpreted as BOM practices and comprised of development and other School levies are approved by the BOM (0.736), procurement procedures are in line with the procurement and disposal Act of 2005 (-0.709) and all statutory Accounting books are maintained by the Bursar/accounts clerk (0.511).

The preceding results of the factors analysis indicate that there are four factors that affect the financial management practices in public secondary schools in Embu West Sub – County. The four are; budgetary practices, internal control system, Principal's financial management skills and BOM practices. The study proceeded to analyze the relationship between the four and financial management practices.

**TABLE 4. 5**

**Rotated Component Matrixa**

Variable	Component				Factor
	1	2	3	4	
The school involves all relevant parties in preparing budget	.792				Budgetary practices
Cash from other sources such as school farm are accurately and correctly recorded in the books of accounts	.772				
There are specific banks in which school accounts should be maintained	.635				
Budget practice procedure is in line with the MOE recommendations	.584				
BOG raises question on expenditures that do not appear to conform with the budgets and approves	.557				
All revenues received is promptly banked	.521				
BOM has a specific pattern of meeting to deliberate on financial issues		.793			Internal Control Systems
The auditors operates under the guidance of the MOE		.774			
Imprest and sundry expenditure is always within limits		.508			
Competent finance officer are hired by the School			.763		Principal financial management skills
Tuition fees charged is approved by the MOE			.688		
There are clear procedures for dealing with frauds and theft			.628		
board of management are appointed as per lid down procedures of the MOE			.553		
Development and other School levies are approved by the BOG				.736	BOM Practices
Procurement procedures are in line with the procurement and disposal Act of 2005				-.709	
All statutory Accounting books are maintained by the Bursar/accounts clerk				.511	

Extraction Method: Principal Component Analysis.  
 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

#### 4.6 Effect of Board of Management Practices on School's Financial Management

To address the second research objective, the study sought to establish the effect of board of management practices on financial management. According to the Table 4.6, most of the respondents (60.5%) strongly agreed that BOM are appointed as per the laid down procedures. A further 39.5% agreed with the statement that schools have BOM which have been appointed according to the laid down procedures. This was a clear indication that the BOM are not weak hence they are in a position to oversee the management of schools on financial matters.

**TABLE 4. 6**

**Board of management are appointed as per lid down procedures of the MOE**

	Frequency	Percent	Cumulative Percent
Agree	17	39.5	39.5
Strongly agree	26	60.5	100.0
Total	43	100.0	

In terms of meeting patterns of the board, Table 4.7 shows that most of the respondents (53.5%) agreed that BOM had a specific pattern of meeting to deliberate on financial matters, while 32.6% of the respondents strongly agreed with the statement. The existence of regular meetings meant that BOM made efforts to reduce financial issues in schools.

**TABLE 4. 7**

**BOM has a specific pattern of meeting to deliberate on financial issues**

	Frequency	Percent	Cumulative Percent
Disagree	4	9.3	9.3
Not sure	2	4.7	14.0
Agree	23	53.5	67.4
Strongly agree	14	32.6	100.0
Total	43	100.0	

In table 4.8, a majority of the respondents (53.5%) agreed and 23.3% strongly agreed that BOM approves all revenues and expenditure. This was considered a strength as approval prevents misuse of finances. However, 20.9% of the respondents choose to be neutral and 2.3% strongly disagreed. Given that in public schools principals are the sole decision makers on financial matters, the 2.3% translates into sizable amount of cash being subject to misappropriation.

**TABLE 4. 8**

**Table 4. Board of management approves all revenues and expenditure**

	Frequency	Percent	Cumulative Percent
strongly disagree	1	2.3	2.3
not sure	9	20.9	23.3
agree	23	53.5	76.7
strongly agree	10	23.3	100.0
Total	43	100.0	

From Table 4.9, the study established that 53.5% of the respondents agreed that BOM raises questions on expenditure that do not appear to conform with the budget, while 30.2% of the respondents strongly agreed with the statement. Only 7% of the respondents disagreed with the statement. This meant that the BOM held the school management accountable for their financial expenditure. The existence of budgets and approved estimates in schools meant that the school managers not only assured of controls but also served as a reference point to the BOM.

**TABLE 4. 9****Board of management raises question on expenditures that do not appear to conform with the budgets and approved estimates**

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative %</b>
Strongly disagree	2	4.7	4.7
Disagree	3	7.0	11.6
Not sure	2	4.7	16.3
Agree	23	53.5	69.8
Strongly agree	13	30.2	100.0
<b>Total</b>	<b>43</b>	<b>100.0</b>	

**4.6.1 Correlation between Board Management Practices and Financial Management**

The study sought to determine the existence of a correlation between Board of management practices and schools financial management practices and Pearson correlation coefficient (r) was used. The correlation coefficient (r) =  $\pm 1.00$  was interpreted to mean a perfect (positive or negative) correlation between bivariate variables. When r was zero (0) there was no relationship between the variables, r = 0.01 showed a very weak relationship and r = 0.9 meant the relationship was very strong. A correlation was considered significant when the probability value was below 0.05 (p-value  $\leq 0.05$ ). In Table 4.10, the Board of management approves all revenues and expenditure had a significant positive correlation (p=0.042, r= 0.311) with financial management of schools at a 0.05 level in a two tailed test. This meant that approval of revenues and expenditure by BOM was an important consideration in a schools financial management. The correlation analysis confirmed the existence of a significant positive relationship (p=0.015, r= 0.368) between BOM has a specific pattern of meeting to deliberate on financial matters with financial management at 0.05 level in a two tailed test. This provided further evidence that BOM meeting is of importance as it improves financial management positively.

**TABLE 4. 10**

**Correlation between Board Management Practices and Financial Management**

		Board of management are appointed as per lid down procedures of the MOE	Board of management approves all revenues and expenditure	BOM has a specific pattern of meeting to deliberate on financial issues	BOG raises question on expenditures that do not appear to conform with the budgets and approves	Financial mgt
board of management are appointed as per lid down procedures of the MOE	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	43				
board of management approves all revenues and expenditure	Pearson Correlation	.071	1			
	Sig. (2-tailed)	.649				
	N	43	43			
BOM has a specific pattern of meeting to deliberate on financial issues	Pearson Correlation	.143	.511**	1		
	Sig. (2-tailed)	.360	.000			
	N	43	43	43		
BOM raises question on expenditures that do not appear to conform with the budgets and approves	Pearson Correlation	.261	.140	.586**	1	
	Sig. (2-tailed)	.091	.371	.000		
	N	43	43	43	43	
<b>Financial management</b>	<b>Pearson Correlation</b>	<b>-.023</b>	<b>.311*</b>	<b>.368*</b>	<b>.379*</b>	<b>1</b>
	<b>Sig. (2-tailed)</b>	<b>.883</b>	<b>.042</b>	<b>.015</b>	<b>.012</b>	
	<b>N</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**4.7 Influence of Principals Management Skills on Financial Management practices**

From Table 4.11, 62.8% of the respondents indicated that public schools all statutory accounting books are maintained by the Bursar/Accounts clerk. This is an indication that proper record are kept which is a prerequisite to instituting controls in institutions and a basis for auditing.

**TABLE 4. 11****All statutory Accounting books are maintained by the Bursar/Accounts clerk**

	Frequency	Percent	Cumulative Percent
Disagree	3	7.0	7.0
Not sure	3	7.0	14.0
Agree	27	62.8	76.7
Strongly agree	10	23.3	100.0
Total	43	100.0	

As indicated in the findings in Table 4.12, majority of the respondents (60.5%) indicated that they agree that development and other levies are approved by the BOM, 30.2% strongly agreed while only 4% were not sure. This implied that most public schools in Embu County embrace the approval of BOM on development and school levies

**TABLE 4. 12****Development and other school levies are approved by the BOM**

	Frequency	Percent	Cumulative Percent
Not sure	4	9.3	9.3
Agree	26	60.5	69.8
Strongly agree	13	30.2	100.0
Total	43	100.0	

Based on the findings in table 4.13 it is notable that majority of the respondents (46.5%) agreed that competent finance officers are hired by the school, 32.5% too strongly agreed with this observation. On the other hand, 14% of the respondents were not sure and 7% disagreed.

From this observation, it was deducted that as per majority opinion competent finance officers is critical in financial management of public secondary schools in Embu County.

**TABLE 4. 13****Competent finance officer are hired by the school**

	Frequency	Percent	Cumulative Percent
Disagree	3	7.0	7.0
Not sure	6	14.0	20.9
Agree	20	46.5	67.4
Strongly agree	14	32.6	100.0
Total	43	100.0	

The study findings in table 4.14 on the auditors operate under the guidance of MOE shows that it is agreeable among respondents that the auditors in public school in Embu County operate under the guidance of MOE, 44.2% of the respondents showed agreement with the statement while 14% disagreed. There is a popular understanding among respondents that the guidance of the MOE was important in financial management. This implied that a relationships exists between the auditors operating under the guidance of MOE and financial management practices

**TABLE 4. 14****The auditors operates under the guidance of the MOE**

	Frequency	Percent	Cumulative Percent
Disagree	6	14.0	14.0
Not sure	7	16.3	30.2
Agree	19	44.2	74.4
Strongly agree	11	25.6	100.0
Total	43	100.0	

On the statement of table 4.15 over half (72.1%) agreed or strongly agreed with the statement while 11.6% disagreed with 11.6% not being sure. It is popular among respondents that cash from other sources are accurately recorded in the books. This meant that there is great importance to record cash from other sources in the books of accounts.

**TABLE 4. 15****Cash from other sources such as school farm are accurately and correctly recorded in the books of accounts**

	Frequency	Percent	Cumulative Percent
Strongly disagree	2	4.7	4.7
Disagree	5	11.6	16.3
Not sure	5	11.6	27.9
Agree	19	44.2	72.1
Strongly agree	12	27.9	100.0
Total	43	100.0	

**4.7.1 Correlation between Principals Management Skills and Financial Management**

The table 4.16 shows a correlation analysis between principal financial skills and financial management practices. From the table 4.11, there is a significant positive correlation ( $p=0.004$ ,  $r= 0.434$ ) between Competent finance officer are hired by the School and financial management of schools at a 0.01 level in a two tailed test. This shows that the competence of the finance officer can positively influence the financial management of schools. A correlation of auditors operates under the guidance of the MOE and financial performance revealed the existence of a significant positive correlation ( $p=0.040$ ,  $r= 0.315$ ). This meant that following the guidance given by MOE assisted auditors to positively influence the schools financial performance. An examination of the correlation between cash from other sources are accurately and correctly recorded in the books of accounts and financial management shows a significant positive correlation ( $p=0.008$ ,  $r= 0.400$ ). This meant that it was important for school management to accurately and correctly record cash from any other source because such information could positively affect the school financial management.

**TABLE 4. 16**

**Correlation of Principals Management Skills and Financial Management**

		Tuition fees charged is approved by the MOE	Development and other School levies are approved by the BOG	All statutory Accounting books are maintained by the Bursar/ accounts clerk	Competent finance officer are hired by the School	The auditors operates under the guidance of the MOE	Cash from other sources are accurately and correctly recorded in the books of accounts	Financial management
Tuition fees charged is approved by the MOE	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	43						
Development and other School levies are approved by the BOG	Pearson Correlation	-.121	1					
	Sig. (2-tailed)	.441						
	N	43	43					
All statutory Accounting books are maintained by the Bursar/ accounts clerk	Pearson Correlation	.113	.349*	1				
	Sig. (2-tailed)	.470	.022					
	N	43	43	43				
Competent finance officer are hired by the School	Pearson Correlation	.365*	.118	.317*	1			
	Sig. (2-tailed)	.016	.453	.038				
	N	43	43	43	43			
The auditors operates under the guidance of the MOE	Pearson Correlation	-.238	.027	.037	.177	1		
	Sig. (2-tailed)	.124	.862	.812	.256			
	N	43	43	43	43	43		
Cash from other sources such as school farm are accurately and correctly recorded in the books of accounts	Pearson Correlation	.033	-.004	.390**	.180	.373*	1	
	Sig. (2-tailed)	.836	.979	.010	.248	.014		
	N	43	43	43	43	43	43	
<b>Financial management</b>	<b>Pearson Correlation</b>	<b>.253</b>	<b>-.007</b>	<b>.046</b>	<b>.434**</b>	<b>.315*</b>	<b>.400**</b>	<b>1</b>
	<b>Sig. (2-tailed)</b>	<b>.102</b>	<b>.963</b>	<b>.768</b>	<b>.004</b>	<b>.040</b>	<b>.008</b>	
	<b>N</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>	<b>43</b>

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

#### 4.8 Budget Participation on Financial Management Practices

The study sought to determine the effect of budget participation on school financial management. A number of variables that informed budget participation were therefore analyzed. Table 4.17 shows that most of the respondents (48.8%) strongly agreed while 44.2% agreed that budget practices procedures in the schools were in line with MOE recommendations. This meant that schools upheld the MOE recommendations on budgetary practices.

**TABLE 4. 17**  
**Budget practice procedure is in line with the MOE recommendation**

	Frequency	Percent	Cumulative Percent
disagree	3	7.0	7.0
agree	19	44.2	51.2
strongly agree	21	48.8	100.0
Total	43	100.0	

In table 4.18 it was established that 55.8% of the respondents agreed and 20.9% strongly agreed that Capital expenditure are budgeted for after wider consultations with the parents and other stakeholders. The existence of 14.0% of the respondents who disagreed with the statement meant that some school managers were not engaging in consultation with stakeholders before embarking on capital expenditure.

**TABLE 4. 18**  
**Capital expenditure are budgeted for after wider consultations with the parents and other stakeholders.**

	Frequency	Percent	Cumulative Percent
Strongly disagree	1	2.3	2.3
Disagree	6	14.0	16.3
Not sure	3	7.0	23.3
Agree	24	55.8	79.1
Strongly agree	9	20.9	100.0
Total	43	100.0	

It was established from table 4.19 that 41.9% of the respondents agreed that all relevant parties are involved in preparing budget. It was also noted that 32.6% of the respondents strongly agreed with the statement. However 18.6% of the respondents indicated that all relevant parties were not involved in preparing the budget. Failure to involve relevant parties in school budgeting resulted in most projects failing due to misallocation of funds.

**TABLE 4. 19**  
**The school involves all relevant parties in preparing budget**

	Frequency	Percent	Cumulative Percent
Disagree	8	18.6	18.6
Not sure	3	7.0	25.6
Agree	18	41.9	67.4
Strongly agree	14	32.6	100.0
Total	43	100.0	

#### **4.8.1 Correlation between budget participation on financial management practices**

The variables that comprised budget participation were correlated with financial management practices and the results displayed in table 4.17. From the table 4.17, there is a significant positive correlation ( $p=0.01$ ,  $r= 0.474$ ) between the school involves all relevant parties in preparing budget and financial management of schools at a 0.01 level in a two tailed test. The collectiveness in budgeting enhances ownership and hence leads to sound financial management of schools.

**TABLE 4. 20**

**Correlations of budget participation and financial management practices**

		Budget practice procedure is in line with the MOE recommendations	Capital expenditures are budgeted for after wider consultations with the parents and other stakeholders	The school involves all relevant parties in preparing budget	Financial management
Budget practice procedure is in line with the MOE recommendations	Pearson Correlation	1	.380*	.293	.223
	Sig. (2-tailed)		.012	.057	.150
	N	43	43	43	43
Capital expenditures are budgeted for after wider consultations with the parents and other stakeholders	Pearson Correlation	.380*	1	.305*	.261
	Sig. (2-tailed)	.012		.046	.091
	N	43	43	43	43
The school involves all relevant parties in preparing budget	Pearson Correlation	.293	.305*	1	.474**
	Sig. (2-tailed)	.057	.046		.001
	N	43	43	43	43
Financial management	Pearson Correlation	.223	.261	.474**	1
	Sig. (2-tailed)	.150	.091	.001	
	N	43	43	43	43

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

**4.21: Internal Control System on Financial Management practices**

The study analyzed the effect of internal control systems on financial management practices. From Table 4.21, the procurement and disposal Act reduces the chances of the principals engaging in dubious transactions single handed. 48.8% of the respondents strongly indicated that they follow the procurement act when procuring supplies for schools. 11.6% did not have the knowhow of implementing the provisions of the public procurement act. A further 7% of the respondents disagreed indicating that some schools do not comply. Public schools that have

failed to comply with the requirement of the public procurement make adhoc purchases and this has a negative impact on cash flow of the schools.

**TABLE 4. 21**

**Procurement procedures are in line with the procurement and disposal Act**

	Frequency	Percent	Cumulative Percent
Disagree	3	7.0	7.0
Not sure	5	11.6	18.6
Agree	14	32.6	51.2
Strongly Agree	21	48.8	100.0
Total	43	100.0	

The study findings in table 4.22, 62.8% of the respondents demonstrated that, imprests are taken and accounted for within stipulated time. However, 7% disagreed and if this is considered at national level, a lot of finances can be misused hence negatively impacting on the cash positions of public secondary schools.

**TABLE 4. 22**

**Imprest and sundry expenditure is always within limits**

	Frequency	Percent	Cumulative Percent
Disagree	3	7.0	7.0
Not sure	5	11.6	18.6
Agree	27	62.8	81.4
Strongly Agree	8	18.6	100.0
Total	43	100.0	

According to table 4.23, 46.5% of the respondents confirmed that all revenues received is banked promptly, while 14.0% of the respondents disagreed which is an indication that some schools in Embu County receive and directly spend cash collected on daily. This later way of handling cash can lead to temptations of embezzlement of cash.

**TABLE 4. 23****All revenues received is promptly banked**

	Frequency	Percent	Cumulative Percent
Strongly disagree	2	4.7	4.7
Disagree	6	14.0	18.6
Not sure	3	7.0	25.6
Agree	20	46.5	72.1
Strongly Agree	12	27.9	100.0
Total	43	100.0	

According to the findings in table 4.24, the respondents agreed that there are clear procedures for dealing with frauds and theft as shown by a 48.8% who agreed and 27.9% who strongly agreed. The existence of such clear procedures are on fraud and theft management would result in good financial management of schools.

**TABLE 4. 24****There are clear procedures for dealing with frauds and theft**

	Frequency	Percent	Cumulative Percent
strongly disagree	2	4.7	4.7
disagree	7	16.3	20.9
not sure	1	2.3	23.3
agree	21	48.8	72.1
strongly agree	12	27.9	100.0
Total	43	100.0	

The respondents according to table 4.25 below, agreed that there are specific banks in which school accounts should be maintained as shown by 39.5% while 16.3% disagreed and 14.0% strongly disagreed. The respondents who disagreed is an indication that some schools in Embu County don't have specific bank accounts hence its difficult to audit such accounts. This is a serious offence as it may lead do fraud and the principals maintaining school fund in their own personal bank account.

**TABLE 4. 25****There are specific banks in which school accounts should be maintained**

	Frequency	Percent	Cumulative Percent
strongly disagree	6	14.0	14.0
disagree	7	16.3	30.2
not sure	3	7.0	37.2
agree	17	39.5	76.7
strongly agree	10	23.3	100.0
Total	43	100.0	

As indicated in the research findings, majority of the respondents 46.5% agreed that schools sticks to the budgetary allocation, 44.2% strongly agreed and only 4.7% disagreed. This clearly implied that budget is followed to the letter hence there is no over expenditure.

**TABLE 4. 26****The school sticks to the budgetary allocation**

	Frequency	Percent	Cumulative Percent
Disagree	2	4.7	4.7
Not sure	2	4.7	9.3
Agree	20	46.5	55.8
Strongly agree	19	44.2	100.0
Total	43	100.0	

From the research findings in Table 4.27, majority of the respondents (51.2%) indicated that they agree that all projects are completed as scheduled, (14%) of the respondents strongly agreed, (3%) were not sure, (18.6%) disagreed and (4%) strongly disagreed. This shows that majority of the schools complete all projects as scheduled hence funds are properly utilized.

**TABLE 4. 27**

**All projects are completed as Scheduled**

	Frequency	Percent	Cumulative Percent
Strongly disagree	4	9.3	9.3
Disagree	8	18.6	27.9
Not sure	3	7.0	34.9
Agree	22	51.2	86.0
Strongly agree	6	14.0	100.0
Total	43	100.0	

From the research findings in table 4.28, 32.6% of the respondents agreed that schools their schools do not experience shortfall in cash flow, (27.9%) strongly agreed, (11.6%) were not sure, another (11.6%) disagreed while (16.3%) strongly disagreed. This clearly indicated that there is a lot of cash inflow in public secondary schools hence need for sound financial management practices.

**TABLE 4. 28**

**The school does not experience shortfalls in cash flow**

	Frequency	Percent	Cumulative Percent
Strongly disagree	7	16.3	16.3
Disagree	5	11.6	27.9
Not sure	5	11.6	39.5
Agree	14	32.6	72.1
Strongly agree	12	27.9	100.0
Total	43	100.0	

**4.9.1 Correlation between Internal Control System on Financial Management practices**

Table 4.9.1 below shows the correlation between all independent variable and dependent variables. In Table 4.9.1, the procurement procedures had a significant strong positive

relationship ( $p=0.003$ ,  $r= 0.447$ ) with financial management at 0.01 level in a two tailed test. This meant that public schools that follow procurement procedures tend to manage their finances well. The correlation analysis confirmed the existence of a significant weak positive relationship ( $p=0.001$ ,  $r= 0.477$ ) between the all revenues received are banked and there are specific banks in which school accounts should be maintained at 0.01 level in a two tailed test. This provided further evidence that public schools that do not have bank the revenue collected do not have specific banks and hence the need for the schools to have specific banks.

**TABLE 4. 29**

**Correlation between Internal Control Systems on Financial Management**

		Procurement procedures are in line with the procurement and disposal Act of 2005	Imprest and sundry expenditure is always within limits	All revenues received is promptly banked	There are clear procedures for dealing with frauds and theft	There are specific banks in which school accounts should be maintained	Financial management
Procurement procedures are in line with the procurement and disposal Act of 2005	Pearson Correlation	1	.259	.160	.113	.183	.447**
	Sig. (2-tailed)		.094	.306	.471	.240	.003
	N	43	43	43	43	43	43
Imprest and sundry expenditure is always within limits	Pearson Correlation	.259	1	.281	.036	.162	.260
	Sig. (2-tailed)	.094		.068	.816	.298	.092
	N	43	43	43	43	43	43
All revenues received is promptly banked	Pearson Correlation	.160	.281	1	.341*	.477**	.498**
	Sig. (2-tailed)	.306	.068		.025	.001	.001
	N	43	43	43	43	43	43
There are clear procedures for dealing with frauds and theft	Pearson Correlation	.113	.036	.341*	1	.218	.227
	Sig. (2-tailed)	.471	.816	.025		.161	.144
	N	43	43	43	43	43	43
There are specific banks in which school accounts should be maintained	Pearson Correlation	.183	.162	.477**	.218	1	.457**
	Sig. (2-tailed)	.240	.298	.001	.161		.002
	N	43	43	43	43	43	43
Financial management	Pearson Correlation	.447**	.260	.498**	.227	.457**	1
	Sig. (2-tailed)	.003	.092	.001	.144	.002	
	N	43	43	43	43	43	43

\*\* Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

#### 4.10 Relationship between the Factors and Financial Management in schools

The four factors extracted using the EFA were transformed into variables and regressed against financial management. The study assumed a linear relationship between the factors and financial management and adopted an Ordinary Least Square (OLS) method of estimation in the analysis. Using OLS, a regression line of best fit was sought. The multiple regression model adopted in the study was;

$$FM = \beta_0 + \beta_1 PMS + \beta_2 BP + \beta_3 ICS + \beta_4 BOM + \epsilon_i$$

Where;

FM = Financial Management

$\beta_0$  = Constant term showing willingness to be a member in the absence of the factors

PMS = Principal's Management Skills

BP = Budget Participation

ICS = Internal Control Systems

BOM = Board of Management Practices

$\beta_1, \beta_2,$  and  $\beta_3,$  are beta coefficients of PMS, BP, ICS and BOM respectively

$\epsilon_i$  = Error Term associated with the regression model

Before the regression analysis, the data was subjected to assumptions of regression analysis. First the data set was tested for normality using graphical method. The resulting

distribution table was normally distributed (Appendix V). Second, the independent variables were correlated in a test of existence of multicollinearity, resulting in a significant relationship with ( $r \leq 0.3$ ). The weak relationship meant the data did not suffer from multicollinearity. Third, the data was tested for linearity. The test for linearity using scatter plot revealed that the independent variables had linear relationship with the dependent variable. The fourth assumption tested was that of equal variance (homoscedasticity). The residual plots showed that the error term ( $\epsilon_i$ ) was normally and identically independently distributed with mean zero and constant variance along the line of best fit. This meant the error variance in financial management were constant along the four factors. Hence the data did not suffer from heteroscedasticity and instead was homoscedastic. The study proceeded to test the four research hypothesis below;

H<sub>01</sub>: Principal's financial management skills has no significant influence on financial management practices

H<sub>02</sub>: Budget participation has no significant effect on financial management practices

H<sub>03</sub>: Weak Board of management has no significant effect on financial management practices

H<sub>04</sub>: Internal control system has no significant effect on financial management practices

Table 4.30 shows the results of the coefficient of determination as highlighted by the R square column. Under model 1, the  $R^2 = 0.482$ , model 2 had an  $R^2 = 0.550$ , model 3 = 0.652 and model 4 = 0.653. The model with the highest coefficient of determination was model 4 and was reflective of the four predictors. The resulting value of  $R^2 = 0.653$  was interpreted to mean that four factors (principal's management skills, budgetary practices, internal control system and board of management) explained 65.3% of the variations in financial management practices in schools.

**TABLE 4. 30****Model Summary of the Factors Affecting Financial Management**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.482 <sup>a</sup>	.233	.214	.75738	.233	12.434	1	41	.001
2	.550 <sup>b</sup>	.303	.268	.73086	.070	4.030	1	40	.051
3	.652 <sup>c</sup>	.425	.381	.67195	.123	8.320	1	39	.006
4	.653 <sup>d</sup>	.426	.365	.68053	.000	.023	1	38	.880

a. Predictors: (Constant), Principals management skills

b. Predictors: (Constant), Principals management skills, Budgetary practices

c. Predictors: (Constant), Principals management skills, Budgetary practices, Internal control system

d. Predictors: (Constant), Principals mgt. skills, Budgetary practices, Internal control system, Board of Management

e. Dependent Variable: Financial management practices

The overall significance of the regression model was assessed using the ANOVA Table 4.31. The resulting analysis shows that all the four models were significant model (p-value = 0.001, p-value = 0.000, p-value = 0.000) in explaining the linear relationship between the principal's management skills, budgetary practices, internal control system and board of management and financial management practices in schools.

**TABLE 4.31****ANOVA Analysis of the Factors Affecting Financial Management**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.133	1	7.133	12.434	.001 <sup>b</sup>
	Residual	23.519	41	.574		
	Total	30.651	42			
2	Regression	9.285	2	4.643	8.691	.001 <sup>c</sup>
	Residual	21.366	40	.534		
	Total	30.651	42			
3	Regression	13.042	3	4.347	9.628	.000 <sup>d</sup>
	Residual	17.609	39	.452		
	Total	30.651	42			
4	Regression	13.053	4	3.263	7.046	.000 <sup>e</sup>
	Residual	17.599	38	.463		
	Total	30.651	42			

a. Dependent Variable: Financial management

b. Predictors: (Constant), Principals management skills

c. Predictors: (Constant), Principals management skills, Budgetary practices

d. Predictors: (Constant), Principals management skills, Budgetary practices, Internal control system

e. Predictors: (Constant), Principals management skills, Budgetary practices, Internal control system, Board of Management

The resulting coefficients table 4.32 shows the coefficients under model 4. The p-value of internal control system was 0.038, which was less than 0.05; hence the study rejected the null hypotheses  $H_{04}$  and inferred that internal control system had a significant effect on financial management practices. From table 4.32; the p-value of principal management skills was 0.444, budgetary practices had a p-value of 0.368 and board of management practices had a p-value of 0.880. The three variables had a p-values greater than 0.05 which meant that they were non-significant. The study therefore failed to reject the null hypotheses  $H_{01}$ ,  $H_{02}$ , and  $H_{03}$  at 5% level and inferred that the three factors had non-significant effect on the financial management practices of schools.

**TABLE 4. 31****Coefficient of the Factors Affecting Financial Management**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
4	(Constant)	-.320	1.075		-.298	.768	-2.497	1.857
	Principals mgt skills	.244	.315	.132	.774	.444	-.394	.882
	Budgetary practices	.197	.216	.166	.912	.368	-.241	.635
	Internal control system	.543	.252	.430	2.154	.038	.033	1.052
	Board of Management	.046	.304	.042	.152	.880	-.569	.661

a. Dependent Variable: Financial management Practices

The coefficients of the factors in Table 4.32 led to the derivation of the fitted model below.

$$FMP = -0.320 + 0.543ICS$$

The fitted model shows that constant associated with the regression equation was -0.320, implying that in the absence of four factors, the financial management practice (FMP) of schools would be poor. The equation also shows that with a unit change in Internal Control System (ICS) would result in a 54.3% change in the resulting financial management practices of schools. The study observes that the other three factors were non-significant, but resulting from the correlation analysis had significant effect on financial management practices.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a discussion on the research findings resulting from the data analysis process and summarizes the key findings. The business implications from the findings are presented. The study was guided by the four key objectives and the discussion centers on their level of attainment.

#### **5.2 Summary of Findings**

This section presents the study findings per research objective and corroborates the results with the reviewed literature.

##### **5.2.1 Findings on the Influence of Principal's Management Skills on Financial Management**

The first research objective was to establish the influence of principal's management skills on financial management. Principals management skills has to do more with competent finance officer are hired by the school, the auditors operate under the guidance of MOE, cash from other sources such as school farm are accurately recorded in the books of accounts, all statutory books are maintained by the bursar, development and other school levies are approved by the BOM and tuition fees charged is approved by the MOE.

The study established that schools who have principals with financial management skills focus more on how the mentioned areas affect financial management. Competent finance officers are hired by the school, the auditors operate under the guidance of MOE, and cash from other

sources such as farm are accurately recorded in the books of accounts were the aspects assessed as far as principals management skills and financial management was concerned.

On competent finance officer, 79% of the respondents indicated that their schools hire competent finance officers while 14% were not sure and only 7% disagreed. On auditors operate under the guidance of MOE, it was noted that 69.8% of the respondents agreed that in their schools the auditors operate under the guidance of MOE, while 16.3% were not sure and only 14% disagreed that auditors operate under the guidance of MOE. On cash from other sources, 72% of the respondents showed that in their schools cash from other sources is recorded in the books of accounts, 11.6% were not sure and 16.3% disagreed. There was a statistically significant strong positive relationship between principal's management skills and financial management with a regression coefficient correlation of 0.244.

These findings agree with literature observations that competent finance officers is one of the principal management skills affecting financial management practices in public secondary schools. According to Simiyu (2015), principal's management skills is critical in financial management.

### **5.2.2 Findings on effect of Board of management practices on schools financial management practices**

Board of management practices and financial management on the primary study findings focuses on BOM raises question on expenditure that do not appear to conform with the budget, BOM has a specific pattern of meeting as well as BOM approves all revenues and expenditures. Board of management practices indicated that most schools have BOM who are appointed as per the laid down procedures in public schools studied as shown by 60.5% response. At least 53.5% of the respondents showed that their schools had BOM who have a specific pattern of meeting to

deliberate on financial issues. Over half of the respondents (53.5%) agreed that BOM raises questions on expenditure that do not conform with the budget.

There was a statistically positive relationship between BOM practices and financial management at a regression correlation coefficient of 0.046. These observations are reflected in the literature reviewed. For instance, in Simiyu (2015), it was noted that school management should have strong BOM if they want to have sound financial management practices.

### **5.2.3 Findings on effect of internal control system on financial management practices**

The system of internal control in the primary findings focused on procurement procedures, revenues received are banked, there are specific banks which school accounts should be maintained, there are clear procedure for dealing with fraud and imprests and sundry expenditures is always within limits. On procurement procedures, the study observed that 81.4% of the respondents examined have their schools following the procurement act when procuring supplies for schools, 11% of the respondents indicated that they did not have the knowhow of implementing the provision of the procurement act, while 7% showed that their schools do not comply. A statistically significant and strong positive correlation was found between internal control system and financial management practices at a regression correlation coefficient of 0.543.

The study findings agree with various observations in the literature review. The results showed that internal control system plays an important role in ensuring the effectiveness of financial management practices. To implement a proper internal control system, those who were in management must take responsibility which in turn gives assurance that public funds are used and accounted for properly, (Sulaiman et al 2008).

### **5.2.4 Findings on effect of budget participation on financial management practices**

Budget participation according to the study findings has to do more with budget practice procedures are in line with MOE recommendations, capital expenditures are budgeted for after wider consultations with relevant parties and the school involves all relevant parties in preparing the budget. The study indicated that schools which embrace budget participation focus more on the mentioned areas affect the financial management. On budget practice procedures, 48% of the respondents strongly agreed that their schools have budget practice procedures which are in line with the MOE recommendations while 44.2% also agreed on the same and 7% disagreed indicating that their school are not practicing budget procedures according to the MOE recommendations. On capital expenditure being budgeted for after consultation with relevant parties, it was noted that 55.8% of the respondents agreed and 20.9% strongly agreed that capital expenditure are budgeted for after wider consultation with the parents and other stakeholders. Only 14% of the respondents disagreed indicating that some school managers were not consulting with stakeholders before embarking on capital expenditure. On the school involves all parties in preparing the budget, it was established that 41.9% of the respondents agreed and 32.6% strongly agreed that all parties were are involved in preparing the budget. 18.6% of the respondents disagreed and 7% were not sure. There was a statistically significant positive relationship between budget participation and financial management practices at a regression correlation coefficient of 0.197.

### **5.3 Conclusions**

The study concludes that principal's financial management skills has a direct effect on the management of finances in public secondary schools. Financial training plays an important role of making the principal more responsible and informed about the role he plays as a custodian of school assets. Schools where the principal has undergone financial training are more effective in the management of finances.

The study further concludes that many schools have put in place internal control mechanisms but they may not be adequate. Major weaknesses are receiving school fee in form of cash and lack of safe for keeping the cash collected before being banked.

Government irregular auditing is the main cause of financial mismanagement among public secondary schools in Embu West Sub-county, Kenya.

#### **5.4. Recommendations**

The researcher recommends that financial management practices in public secondary schools should be enhanced to boost financial performance for schools with ease. The study also recommends that BOM should have post-secondary qualification and be trained in financial management. This will improve the management of finances in the schools. BOMs should be paid responsibility allowances to motivate them to attend meetings and participate fully in deliberations.

The Government should release the funds meant for the schools in good time. This will give the school management easy time in budgeting for the schools in good time and prevent the inconveniences that may rise due to lack of funds. The school administration should also ensure that the members nominated as BOMs are well versed with financial management concepts, are reliable and have high integrity. The process of nominating BOMs should be transparent and free from manipulations.

The study recommends that the government ensures that all newly established public schools have credible and functioning BOM. The government should also continue organizing workshops and seminars for principals, deputy principals and school Bursars for the purpose of enlightening them on better general and financial management techniques to enable them discharge their duties professionally.

Public secondary schools should employ qualified personnel and principals should allow bursars/Accounts clerks to further their studies in order to improve financial management of the schools. Government auditing should be regular and should go through the books of accounts and give back a report to the schools with the necessary recommendations.

#### **5.5. Suggestions for further research**

The study focused on factors affecting financial management practices in public secondary schools in Embu West Sub County. The researcher recommends that further study can be carried out to determine factors affecting financial management in private secondary schools. A further study can also be carried out to find out the factors affecting financial management practices in other counties.

## REFERENCES

- Atieno, E. (2012). Challenges faced by Newly Research and Publication Appointed Principals in The Management of Public Secondary Schools in Bondo District, Kenya: an analytical study. Retrieved from:  
[www.interestjournals.org/.../challenges-faced-by-newly-appointed-principdf](http://www.interestjournals.org/.../challenges-faced-by-newly-appointed-principdf)
- Aranya, N. 1990. *Budget Instrumentality, Participation and Organizational Effectiveness*. Journal of Management Accounting Research,
- Ayot,H.O. & Briggs, H. (1992). *Economics of Education*. Nairobi: Educational Research and Publication.
- Berk, J. and Demarzo, P. (2008) *Financial Management* 3<sup>rd</sup>Edition New Delhi; Baba Barkhanath Printers
- Brunet, L. &Boudreault R. (2002). Empowerment and leadership in school management: an asset for a decentralization policy), *Education etfrancophonie*, 29, (2)
- Burke R.J. (2001) Effective Cash Management for schools: The Budget as a Control Document, *Finance Momentum*, Vol. 9 (4) pp. 16-19.
- Chepkong'a, s. (2009) *Training Needs Assessment in Financial Management of Secondary School Head teachers: A Case Study of Nandi North District*, Unpublished MBA Thesis UON.
- Clarke A; (2008). *Handbook of School Management*; Cape Town; MacMillan
- Cowan, J. (2000) The Global Cash Challenge”, *Treasury Management International, Special Report pp. 1-2*.

- Green, J. P. (2005). *National Education Summit on High School: An action Agenda 1991-2002*. New York: America Manhattan Institute.
- Hallack, J., Poisson, M. (2007), *Corrupt Schools, Corrupt Universities: What Can Be Done?* International Institute for educational Planning/UNESCO, Paris.
- Hendrickse, R. F. (2008). *Governance and Financial Sustainability of NGOs in South Africa. Unpublished Doctorate Thesis.*
- Hornigren CT, Bhimani A, Datar S, Foster G (2005) *Management and cost accounting. Financial Times Prentice Hall, Harlow*
- Jensen MC, Meckling WH (1976) Theory of the firm: managerial behavior, agency costs and ownership structure. *J Financ Econ October:305-360*
- Kahaviza, R.K. (2003). “*Financial Management in public secondary schools in Kenya: A case of Municipality and Lurambi Divisions of Kakamega District*: Unpublished M.Ed. Thesis. University of Eastern Africa Baraton.
- Kibua, T., Akoten, J., Riechi, A. Burasa, T., Oyugi, L., Omolo, J., Muthama T. & Mukasa, G. (2008). *Making public secondary Education in Kenya Affordable. Nairobi: IPAR*
- London, M. 2003. *Job Feedback: Giving, Seeking, and Using Feedback for Performance Improvement*. 2nd ed., Lawrence Erlbaum Associates, Mahwah, NJ,
- Longenecker, J.,G., Petty,C.,W.,Moore J. W. and Palich L. E. (2006).*Small Business Management, An entrepreneurial emphasis*. London: Thomson South Western press.
- Macharia, K. (2002, August 21<sup>ST</sup>). “School finance Audit”. *East Africa Standard 2002 p. 12*
- Mestry, R. (2004). Financial accounting: the principal or the school governing body? *South Africa Journal of Education*, 24(2) pp. 126-132

Mestry, R. (2006). Functions of school governing bodies in Managing finances *South Africa Journal of Education*, 26(1) pp. 27-38

Ministry of Education, Science and Technology, (2003). *A Handbook of Financial Management for Secondary Schools*, Nairobi; Government Printers

Mobegi, F., Ondigi B., & Simatwa, E. (2012). *Factors Contributing to financial mismanagement and misappropriation in public Secondary Schools in Gucha District, Kenya*, 2(5), 2249-2585

Mugenda, O.M., Mugenda, A.G. (2003), *Research Methods. Qualitative and Quantitative Approaches*, Act Press, Nairobi

Ogola, J. (2007). *Challenges faced by Head Teachers in the Management of free secondary education implication for quality Education. A case of Usigu Division in Bondo District.*

Ogbonnaya, N.P. (2000). *Foundations of education finance. Onitsha: Cape Publishers International.*

Ngware, M.W., Wamukuru, D.K., Odebero, S.O. (2007), “*Total quality management (TQM) in secondary schools in Kenya: extent of the practice*”, *Quality Assurance in Education*, vol. 14 No.4, pp. 339-62.

Paisley, A. (1992). *Organization and management in schools*. New York: America Manhattan Institute.

Padilla, L. M, Staplefoote, S. & Morganti, S. (2012). *Financial Sustainability for Nonprofit Organizations. Rand.*

Rosalind, L. & Downes, P. (2004). *Formula funding of schools, decentralization and corruption: A comparative Analysis. Paris: International Institute for Educational Planning (IIEP).*

Simiyu, A. (2004). *Investigation on factors affecting cash management in public secondary*

*Schools: a case of Mombasa County*, MBA thesis, retrieved from:  
<http://www.researchgate.net/publication/263702>

Sulaiman, M, Siraj, S. A., Mohamed Ibrahim, S. H. 2007. *The Financial Management Practices in State Mosque in Peninsular Malaysia*. International Islamic University Malaysia

United Kingdom. (2009). *Financial Management in the Department for Children, Schools and Families*. HC 267 Session 2008-2009. Stationery Office Limited, UK.

UKTransparency international Kenya (2010). Kenya education sector integrity report Nairobi  
Retrieved from [www.http](http://www.http) Kenya org

Velayutham, S., Perera, M. H. B. 2004. *The Influence of Emotions and Culture on Accountability and Governance*. Corporate Governance, 4 (1):52-64.

Waihenya (2002), Queries Over Move to Audit Schools, *Daily Nation*, April 25

World Bank, (2008). *Governance, Management, and Accountability in Secondary Education in Sub-Saharan Africa*. Washington, D.C.: World Bank

Ziebell et al (1991), Management Control Systems in Non-Profit Organizations. *Harcourt Brace Javanoch*

## APPENDICES

### APPENDIX I: RESEARCH QUESTIONNAIRE

#### Dear Respondent,

My name is Nyaga Lucy Wanjiru, final year student at KCA University. I am carrying out a research study on Factors affecting Financial Management in Public Secondary Schools in Embu County. You are among the respondent selected to take part in the study. The information given will be treated with utter most confidence and will only be used for academic purpose only,

**please tick as appropriate**

#### Section A: General Information of the respondents

1. Name of school.....
2. What is the student population of your school?  
Less than 500( ) 501-1000( ) 1001-1500( ) above 1500 ( )
3. What type is your School?  
a) Day ( )                      b) Boarding ( )
4. Your job position  
a) Principal                      ( )  
b) Deputy principal              ( )  
c) Bursar                          ( )  
d) Accounts clerk                ( )
5. How long have you served in the current position  
1 -2years                      ( )  
3-5years                        ( )  
5-10years                      ( )  
Others (Specify) .....

6. Your level of education

- a) Certificate ( )
- b) Diploma ( )
- c) Degree ( )
- d) Others ( )

7. Financial training enhances one's financial management skills?

- Strongly Agree ( )
- Disagree ( )

If you agree, what type of training have you ever undertaken?

- a) Work shop ( )
- b) Seminar ( )
- c) On the job training ( )
- d) Others (specify).....

**SECTION B: Effect of Board of Management Practices on Financial Management of public secondary schools in Embu County**

For the elements listed in the tables below, indicate how critical each factor is in relation to Financial Management practices in your school (please tick the correct box)

Please respond based on the scale: strongly agree (SA), Agree (A) Not Sure (NS) Disagree (D) and Strongly Disagree (SD)

Q. NO.	STATEMENT	S A	A	N S	D	SD
8	Board of governors are appointed as per the laid down procedures of the MOE					
9	BOG approves all revenues and expenditures					
10	BOG has a specific pattern of meeting to deliberate financial issues of the school					
11	BOG raises question on expenditures that do not appear to conform with the budgets and approves estimates					

**SECTION C: Influence of Principals Management Skills on Financial Management practices**

Please respond based on the scale: strongly agree (SA), Agree (A) Not Sure (NS) Disagree (D) and Strongly Disagree (SD)

	STATEMENT	SA	A	NS	D	SD
12	Tuition fees charged is approved by the MOE					
13	Development and other School levies are approved by the BOG					
14	All statutory Accounting books are maintained by the Bursar/accounts clerk					
15	Competent finance officer are hired by the School					
16	The auditors operates under the guidance of the MOE					
17	Cash from other sources such as school farm are accurately and correctly recorded in the books of accounts					

18. Please highlight any challenges that you experience when handling school finances

.....  
 .....  
 .....

**SECTION D: The influence of budget participation on financial management practices in Public Secondary School**

Please respond based on the scale: strongly agree (SA), Agree (A) Not Sure (NS) Disagree (D) and Strongly Disagree (SD)

	STATEMENT	SA	A	NS	D	SD
19	Budget practice procedure is in line with the MOE recommendations					
20	Capital expenditures are budgeted for after wider consultations with the parents and other stakeholders					
21	The school involves all relevant parties in preparing budget					

22. In your own opinion, does your school follow the budgetary allocation? And if not give a reason for that.....

.....

**SECTION E: The Effect of Internal Control System on Financial Management practices in Public Secondary Schools**

Please respond based on the scale: strongly agree (SA), Agree (A) Not Sure (NS) Disagree (D) and Strongly Disagree (SD)

Q.NO	STATEMENT	SA	A	NS	D	SD
23	Procurement procedures are in line with the procurement and disposal Act of 2005					
24	Imprest and sundry expenditure is always within limits					
25	All revenues received is promptly banked					
26	There are clear procedures for dealing with frauds and theft					
27	There are specific banks in which school accounts should be maintained					

28. Are there any other controls that you suggest should be put in place to enhance financial controls in your school?

.....  
 .....

**SECTION F: FINANCIAL MANAGEMENT**

Q.NO	STATEMENT	SA	A	NS	D	SD
29	The School sticks to the budgetary allocation					
30	All Projects are completed as Scheduled					
31	The School does not experience shortfalls in cash flow					

31. In your own opinion in what way can your organization improve its overall Financial Management?.....  
 .....

**Thank You.**

## APPENDIX II: PUBLIC SECONDARY SCHOOLS IN EMBU WEST SUB – COUNTY

1. Gatunduri Mixed Day sec Sch
2. Kigari Sec Sch
3. DEB Kangaru Mixed Day
4. Embu County
5. Gatituri Sec Sch
6. Gatondo Sec Sch
7. Gatunduri Sec.
8. Itabua Sec. School
9. Kamiu Sec. Sch
10. Kangaru Boys
11. Kangaru Girls Sch
12. Kimangaru Mixed
13. Kirimari Boys
14. Kithegi Mixed Sec
15. Nthambo Mixed
16. Rukira Day
17. St. Joseph's Sec Sch M'tetu
18. St. Lukes Day Karurina
19. St. Marys Kiangima Sec
20. St. Benedicts Kithimu
21. St. Christopher Mixed
22. St. Francis Ngoire
23. St. Michael Kevote Day Sec
24. St. Michael Mixed Day Sec
25. St. Paul's Kevote
26. St. Teresa Kithimu
27. Kirigi Day Sch
28. St. Martha Gatoori
29. Urban integrated school
31. St. Mathew Sec Sch
31. Kamama Sec Sch

*Source: MOE Records of Public Secondary Schools in Embu (December, 2010)*

## APPENDIX III: SCHOOLS ABOVE FIVE YEARS IN EXISTENCE

1. Kirigi Day Sch
2. St. Mathew Sec Sch
3. Embu County
4. St. Joseph's Sec Sch M'tetu
5. DEB Kangaru Mixed Day
6. Kirimari Boys
7. Kamama Sec Sch
8. Urban integrated school
9. St. Christopher Mixed

10. Kigari Sec Sch
11. Kangaru Girls Sch
12. Kangaru Boys
13. St. Teresa Kithimu
14. Gatunduri Mixed Day sec sch
15. Gatituri Sec Sch

*Source: MOE Records of Public Secondary Schools in Embu (December, 2010)*

## APPENDIX IV: TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.877	27.092	27.092	4.877	27.092	27.092
2	2.227	12.373	39.465	2.227	12.373	39.465
3	1.861	10.340	49.804	1.861	10.340	49.804
4	1.498	8.324	58.128	1.498	8.324	58.128
5	1.268	7.044	65.172	1.268	7.044	65.172
6	1.090	6.054	71.226	1.090	6.054	71.226
7	1.007	5.593	76.820	1.007	5.593	76.820
8	.912	5.067	81.886			
9	.686	3.810	85.696			
10	.565	3.138	88.834			
11	.521	2.892	91.726			
12	.346	1.924	93.650			
13	.296	1.646	95.297			
14	.271	1.507	96.803			
15	.227	1.263	98.066			
16	.196	1.087	99.153			
17	.110	.614	99.767			
18	.042	.233	100.000			

Extraction Method: Principal Component Analysis.

## APPENDIX V: Normality Test

### Principals management skills Stem-and-Leaf Plot

Frequency	Stem & Leaf
4.00	3 . 1133
10.00	3 . 5555668888
19.00	4 . 00000000111113333333
8.00	4 . 55556666
2.00	5 . 00

Stem width: 1.00  
Each leaf: 1 case(s)