

**EXPLORING SCHOOL MANAGER ACCOUNTABILITY PRACTICES IN
FINANCIAL AND MATERIAL RESOURCES UTILISATION AND
IMPLICATIONS ON SCHOOL PERFORMANCE IN SELECTED
PUBLIC SECONDARY SCHOOLS OF THE COPPERBELT
PROVINCE OF ZAMBIA**

By

OLIVER KABASO

2019111373

A thesis submitted to the University of Zambia in fulfilment of the
requirements for the degree of Doctor of Philosophy in Educational
Administration and Management

**THE UNIVERSITY OF ZAMBIA
LUSAKA**

© 2023

COPYRIGHT

No part of this dissertation may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission of the copyright owner. All rights reserved.

© 2023 Oliver Kabaso

Abstract

This study scrutinized a range of accountability variables among secondary school managers to assess the impact on school performance in selected public secondary schools in the Copperbelt Province of Zambia. This was done by analysing management practices and tools in relation to the utilization of material and financial resources.

Using a descriptive study design of the quantitative approach, the study collected data through three sets of questionnaires which were administered to fifty (50) school managers, fifty (50) accounts assistants, and fifty (50) store officers. The data collected were analysed using descriptive statistics and regression analysis. The data were also subjected to inferential statistics such as the Pearson Product Moment of Correlation to determine the significant relationships among the variables. This was done using Statistics Package for Social Sciences (SPSS version 26), SmartPLS software, and Pearson regression analysis. The findings were presented as frequency tables, percentages, means, and variations.

The study established that School managers conscientiously control financial and material resources through budgeting and reapportioning resources to priority areas. The study also spot-lighted standard accountability practices employed by most school managers including the use of asset registers, stores ledgers, payment vouchers, goods received vouchers, stores requisition, bank reconciliations, receipt books, bin cards, cash books, bank statements, cheque registers to monitor and control material and financial resource utilisation. The overarching outcome of the study is that there are generally high levels of school manager accountability in utilising financial and material resources. Peculiarly, it was established that there was no significant relationship between school manager accountability and school performance in this particular study. School performance was found to be largely average despite the high levels of school manager financial and material resource accountability.

The study, therefore, recommends that the Ministry of Education should strengthen monitoring of financial and material resource utilization in schools especially at end-user -points at department and section levels. MoE should ensure that school managers are trained in financial management. The researcher suggests further research by future researchers on financial and human resource accountability practices in primary and community schools.

Acknowledgements

The journey is the reward. This Taoist proverb profoundly describes the previous three years of my life presumably pursuing at the onset a PhD. but ultimately earning more than a degree could offer. This page is my humble way of thanking everyone who travelled with me on this long but exciting journey.

The journey never fell short of immeasurable support from my dearest wife Monica Kabaso. Dear, you are the only person who understands my dreams. Your support naturally strengthens me to do more and more. “Dear, you are my inspiration”. I wish to give my sincere thanks to you for your openness, time, and generosity. My love, your contribution, and your willingness to share your daily experiences, thoughts, and feelings were essential to the development of this thesis. Special thanks to my lovely children, Mapalo, Lubuto, Mutale, and Faith, who occasionally acted as my research assistants by ‘editing’ the printouts of my manuscripts with their colorful scribbles. Indeed, you are a magnanimous intellectual being. You never cease to make my life worth living for which I am truly grateful. Thank you so very much guys. I look forward to someday watching you grow older and take over the world. Special gratitude to my lovely parents Mr. and Mrs. Kabaso who always encouraged me to work hard and put in the best in whatever I am doing. Mum you always said to me that “*Isembe talitwa. Icitwa mutima*”. You truly encouraged me to work hard and always fight for what is good. I know you are watching down on me every day.

I wish to express my deepest and heartfelt gratitude to my supervisor Dr. Tommie NJOVU for his proficiency in supporting and guiding this work from the conception of the research topic to the writing up of this thesis. The amiable atmosphere you provided, keen understanding, and timely actions have brought this work to reality. Without your great assistance, it would not have been easy to complete this piece of work. I may have stumbled and fallen countless times in my journey, yet you refused to give up on me. I could always get up from a fall knowing that I could stand on your shoulders. I will forever remain grateful to you. Only God will reward you but allow me to say, thank you.

This journey has been truly meaningful with the grace and wisdom of the almighty God, the ultimate source of infinite knowledge and truth. With all the support both divine and human, indeed the journey is the reward. In this journey, I learned to see the greatness in small things and the smallness in great things. Thank you, Jesus!

‘It is never easy until it is done’ – Nelson Mandela

Dedication

Firstly, I would like to thank the almighty God for all the blessings and for giving me this opportunity to pursue this wonderful programme. I dedicate this work to my wife. Dear, you have been my source of inspiration. I further dedicate this work to my late parents for their love and support without their efforts and inspiration this work would not have been possible. I owe you the greatest debt as you provided me the privilege of starting and going through the never-ending long education journey. I have always looked up to you and still cannot believe you have both gone. You went too soon, but it gives me hope to think you are in a better place. Till we meet again rest in eternal peace.

Declaration

I **Oliver Kabaso**, do hereby declare that this thesis is my original work achieved through personal reading and scientific research. This work has never been submitted to the University of Zambia or any other University for the award of a Doctor of Philosophy in Education Administration and Management degree or any other academic award. All sources of data used and literature on related works previously done by others used in the production of this thesis have been dully acknowledged. If any omission has been made it is not by choice but by error.

Name: Oliver KABASO

Signature:

Date: 2023

TABLE OF CONTENTS

COPYRIGHT	i
Abstract.....	ii
Acknowledgements	iii
Dedication.....	iv
Declaration	v
Approval	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xvii
ABBREVIATIONS AND ACRONYMS.....	xxi
OPERATIONAL DEFINITION OF TERMS	xxii
CHAPTER ONE.....	1
ORIENTATION OF THE STUDY.....	1
1.1 Chapter Overview.....	1
1.2 Introduction	1
1.3 Background to the study.....	2
1.4 The rationale for the study.....	11
1.5 Statement of the problem.....	12
1.6 Purpose of the study	13
1.7 Research objectives	13
1.8 Research questions	13
1.9 Theoretical perspective.....	13
1.10 Theoretical Framework	14
1.11 Accountability Framework.....	18
1.12 Schematic representation of the conceptual framework.....	21
1.13 Conceptual Framework	22
1.14 Hypotheses	24
1.15 Significance of the Study.....	24

1.16 Contribution of the Study	25
1.17 Limitations of the study.....	25
1.18 Delimitations of the Study.....	25
1.19 Conclusion.....	26
1.20 Projection of the next chapter.....	26
CHAPTER TWO.....	27
LITERATURE REVIEW	27
2.1 Introduction	27
2.2 Accountability	27
2.3 The Origins of Accountability.....	27
2.4 Worldview of Accountability.....	30
2.4.1 God and Accountability.....	30
2.5 The Concept of Accountability	31
2.6 Essentials of Accountability.....	33
2.6.1 Enforcement.	33
2.6.2 Monitoring.....	34
2.6.3 Answerability.	35
2.7 Internal and External Accountability Mechanisms	36
2.7.1 Internal Accountability Mechanisms.....	36
2.7.2 External Accountability Mechanisms.....	36
2.8 Models of Accountability in Education.....	37
2.8.1 Performance accountability model	38
2.8.2 Political accountability model	39
2.8.3 Legal accountability model	39
2.8.4 The Regulatory or bureaucratic accountability model	39
2.8.5 Market accountability model.....	41
2.8.6 The participative or social accountability model.....	42
2.8.7 Professional accountability model.....	42

2.9	Education Accountability	43
2.9.1	Educational Accountability: A Controversial Strategy for Educational Improvement.....	44
2.9.2	Educational Accountability and Performance: Perceptions from the Literature.....	45
2.10	Accountability and Education Policy	46
2.10.1	Accountability-Driven Policy Implementation	47
2.10.2	Accountability as a School Improvement Policy	48
2.10.3	Accountability: A key to performance measurement.....	49
2.10.4	Accountability measures	50
2.11	Importance of accountability in education	50
2.12	Accountability in Educational Institutions	51
2.13	Concept of School Administration.....	54
2.13.1	Principles of School Administration	55
2.13.2	School management accountability.....	56
2.13.3	Managerial Accountability and Leadership Practices in Zambia.....	57
2.14	The Importance of managerial accountability on school performance	59
2.15	Acquisition and Utilisation of Resources	60
2.15.1	Non-human Resources.....	60
2.15.2	Importance of resource acquisition and Utilisation.....	61
2.16	Financial Accountability in School	62
2.16.1	Financial Policy and Legal Framework.....	62
2.16.2	School's finance policy	64
2.16.3	Accountability and Rational Use of Funds.....	65
2.16.4	Sources of funds in secondary schools	67
2.16.5	Managing the Education Funds	68
2.16.6	Factors Affecting Financial Management in Public Secondary Schools	68
2.16.7	School Manager Financial Management Skills and Financial Management Practices.....	69
2.16.8	School financial management in Zambia	70
2.16.9	Budgeting	71

2.16.10	The budgeting process.....	72
2.16.11	Budgeting and Use of School Funds.....	73
2.16.12	Budget and Financial Management Practices.....	74
2.16.13	Expending and Accounting for School Finances.....	76
2.16.14	Financial control.....	80
2.16.15	Internal Control System and Financial Management Practices.....	80
2.16.16	Auditing School Account Books.....	81
2.16.17	Misuse of school funds in public secondary schools.....	82
2.17	Challenges school managers encounter in the Management of Funds in Schools.....	85
2.18	Strategies employed to ensure financial accountability in schools.....	89
2.19	Material Resource.....	89
2.20	Material Resource Management.....	90
2.20.1	Functions Materials Resource Management.....	91
2.20.1.1	Procurement of Material Resources.....	91
2.20.1.2	Resources Planning.....	91
2.20.1.3	Purchasing of Material Resources.....	93
2.20.1.4	Procurement procedures.....	94
2.20.1.5	Storage of Material Resources.....	95
2.20.1.6	Utilisation of Material Resource.....	95
2.20.1.7	Inventory control.....	96
2.21	Methods used by school managers to monitor material and financial resource.....	97
2.22	Challenges associated with the accountability of material and financial resources in schools.....	99
2.23	Education resources management.....	100
2.23.1	Material/Physical Resources.....	101
2.23.2	Financial Resources.....	101
2.24	Research Gap.....	102
2.25	Chapter summary and conclusion.....	102
2.26	Projection of the next chapter.....	102

CHAPTER THREE.....	103
RESEARCH METHODOLOGY.....	103
3.1 Introduction	103
3.2 Philosophical assumptions.....	103
3.2.1 Research Philosophies and Paradigms	104
3.2.2 Ontology and Epistemology	105
3.2.2.1 Ontology	105
3.2.2.2 Epistemology.....	105
3.2.3 Paradigms	105
3.2.4 Positivists’ Approach.....	106
3.2.5 Philosophical perspectives.....	107
3.3 Research Approach.....	107
3.4 Research Design	108
3.5 Research Methodology.....	110
3.5.1 Methods	110
3.5.2 The rationale for selecting a quantitative research method	112
3.5.3 Target Population	112
3.5.4 Sampling Techniques	113
3.5.5 Sample Selection and Sampling Procedures	115
3.5.6 Sample Size and Organisation.....	115
3.5.6.1 Schools	116
3.5.6.2 School managers.....	116
3.5.6.3 Accounts Assistants and Stores officers.....	116
3.6 Data collection.....	117
3.6.1 Data Collection Method	117
3.6.1.1 Sources of Data.....	118
3.6.1.1.1 Primary data	118
3.6.1.1.2 Secondary Data	118

3.6.2	Data collection instruments	118
3.6.2.1	Questionnaire Survey	118
3.6.2.2	Document Review	119
3.7	Pilot Study	120
3.7.1	Pilot Testing of Research Instruments.....	120
3.7.2	Lessons learned from the pilot for the main study	122
3.7.3	Conclusions of the pilot study	122
3.8	Reliability and Validity of the research instrument.....	122
3.8.1	Reliability of the Research Instrument	122
3.8.2	Validity of Research Instruments	123
3.9	Data Analysis.....	124
3.9.1	Analysis of Quantitative Data	125
3.10	Ethical considerations.....	125
3.11	Summary of the Chapter.....	126
	CHAPTER FOUR	127
	DATA PRESENTATION AND ANALYSIS	127
4.1	Introduction	127
4.2	Data Preparation	127
4.2.1	Retrieval of Questionnaire.....	127
4.2.2	Data Encoding and Screening.	127
4.3	Response Rate	128
4.4	School manager demographic information	129
4.4.1	Gender of respondents (School Managers)	129
4.4.2	Age distribution of respondents.....	130
4.4.3	School managers' professional qualifications.....	130
4.4.4	Years Served as School manager (Experience as School Manager)	131
4.4.5	School managers' Years served at the current station.....	132
4.5	Analysis of descriptive statistics for quantitative variables	132

4.5.1	School manager accountability practices and procedures in the acquisition and utilisation....	133
4.5.1.1	Acquisition of financial resources	133
4.5.1.1.1	<i>Acquisition of financial resources</i>	133
4.5.1.2	Utilization of financial resources.....	135
4.5.1.3	Financial procedural practices	138
4.6.2	Material resource acquisition and utilisation.....	140
4.6.2.1	<i>Material Resource Acquisition and Utilisation</i>	141
4.6.3	Compliance to procedure for financial resource utilisation	142
4.6.3.1	<i>Compliance with procedure for financial resource utilisation</i>	143
4.6.3.2	Projection from Accounts assistants on compliance to procedure for financial	145
4.6.3.3	Projection from Accounts assistants on compliance to procedure for financial	146
4.6.3.4	Projection from Accounts assistants on compliance to procedure for financial	148
4.6.3.5	Projection from Accounts assistants on compliance to procedure for financial	149
4.6.4	Managerial accountability and compliance with material resource utilisation	151
4.6.4.1	Control of Material Resources utilisation.....	155
4.6.5	Economic resource utilisation	155
4.6.5.1	Accountability and economic usage of stationary.....	155
4.6.5.1.1	<i>Accountability and economic usage of stationary</i>	156
4.6.5.2	Accountability and economic usage of water.....	156
4.6.5.2.1	<i>Accountable and economic usage of water</i>	157
4.6.5.3	Accountability practices and economic usage of electricity	158
4.6.5.3.1	<i>Accountability practices and economic usage of electricity</i>	158
4.6.5.4	Accountability and economic practices.....	159
4.6.5.4.1	<i>Accountability and economic practices</i>	160
4.6.6	Exploring material resources procurement procedures in public secondary schools.....	161
4.6.7	Tools school managers use for monitoring material and financial resource utilisation	162
4.6.7.1	Management of fixed assets	164
4.6.7.2	Fixed assets register.....	164

4.6.7.3	Income and expenditure report	164
4.6.7.4	Statement of balances	165
4.7	Assessing levels of managerial accountability compliance to set standards/ expectations	165
4.7.1	Monitoring and control of material resources (from store officer projection)	167
4.7.1.1	<i>Monitoring and control of material resources from store officer projection</i>	167
4.8	Accountability tools and compliance (from store officer projection)	169
4.8.1.1	<i>Store Office accountability tools and compliance</i> (from store officer projection).....	170
4.9.	Relationship between managerial accountability and performance	172
4.9.1	Data Analysis to Test the Hypotheses	172
4.9.1.1	Indicator Reliability	173
4.9.1.2	Outer Loadings and Internal Consistency Reliability	174
4.9.1.3	Convergent Validity and Discriminant Validity.....	175
4.9.1.4	Coefficient of Determination (R^2)	176
4.9.1.5	Path Coefficient	176
4.9.1.6	Predictive Relevance (Q^2)	176
4.9.1.7	The f^2 Effect Size	177
4.9.1.8	Summary of Hypothesis Testing	177
4.9.1.9	Indicator Reliability.....	177
4.9.1.10	Outer Loadings and Internal Consistency Reliability	178
4.9.1.11	Convergent Validity and Discriminant Validity.....	179
4.9.1.12	Coefficient of Determination (R^2)	179
4.9.1.13	Path Coefficient	180
4.9.1.14	Predictive Relevance (Q^2)	180
4.9.1.15	The f^2 Effect Size	180
4.9.1.16	Summary of Hypothesis Testing	181
4.9.1.17	Indicator Reliability.....	181
4.9.1.18	Outer Loadings and Internal Consistency Reliability	182
4.9.1.19	Convergent Validity and Discriminant Validity.....	183

4.9.1.20 Coefficient of Determination (R^2)	183
4.9.1.21 Path Coefficient	183
4.9.1.22 Predictive Relevance (Q^2)	184
4.9.1.23 The f^2 Effect Size	184
4.9.1.24 Summary of Hypothesis Testing	185
4.10 Factor Analysis	185
4.11 Correlation Matrix	185
4.12 Linear regression	192
4.12.1 Hypothesis testing	194
4.13 Evaluation of the assumptions of regression analysis	198
4.14 Managerial Accountability and School Performance	198
4.15 Summary	203
4.16 Projection of the next chapter	205
CHAPTER FIVE	206
DISCUSSION ON RESEARCH FINDINGS	206
5.1 Introduction	206
5.2 Discussion of the research outcomes	206
5.2.1 School Managers' acquisition of Financial and material resources in Secondary Schools	208
5.2.1.1 School Managers' acquisition of Financial resources in Secondary Schools	208
5.2.1.2 School managers' accountability in the utilisation of financial resources	209
5.2.1.3 Material resource acquisition and utilisation in secondary schools.	211
5.2.1.4 Accountability and economic usage of education resources in secondary schools	211
5.2.2 School managers compliance with accountability requirements in secondary schools	214
5.2.3 Accountability tools used in compliance with laid down procedures	215
5.2.4 Relationship between School Manager Level of Accountability and School Performance	216
5.3 Implications of the Results of school manager accountability practices	218
5.3.1 Implications of the results on school managers' practices and procedures.	218
5.3.2 Implications of the results on tools school managers use to monitor financial and material ...	219

5.3.3	Implications of results on levels of school manager compliance to set /expected standards. ...	220
5.3.4	Implications of the results on how managerial accountability impact performance	220
5.4	Conclusion.....	221
5.5	Projection of the next Chapter.....	221
CHAPTER SIX.....		222
SUMMARY, CONCLUSION AND RECOMMENDATIONS		222
6.1	Introduction	222
6.2	Summary.....	222
6.3	Conclusion.....	224
6.4	Recommendations	226
6.5	Further Research.....	226
REFERENCES		227
APPENDICES.....		235
APPENDIX 1 – LETTER FROM THE UNIVERSITY		235
APPENDIX 2 - REQUEST FOR PERMISSION PEO.....		236
APPENDIX 3 - PERMISSION TO CONDUCT RESEARCH.....		237
APPENDIX 4 - REQUEST FOR PERMISSION DEBS		238
APPENDIX 5 - PERMISSION SCHOOL MANAGER.....		239
APPENDIX 6 - PARTICIPANTS INFORMED CONSENT FORM		240
APPENDIX 7 - QUESTIONNAIRE FOR THE SCHOOL MANAGER		241
APPENDIX 8 - SCHOOL MANAGERS ACCOUNTABILITY PRACTICES.....		245
APPENDIX 9 - QUESTIONNAIRE FOR THE ACCOUNTS ASSISTANT		246
APPENDIX 10 – QUESTIONNAIRE FOR THE STORE OFFICER		248
APPENDIX 11 - FACTOR ANALYSIS		250
APPENDIX 12 - SIGNIFICANCE OF THE VARIABLES IN THE MODEL.....		256
APPENDIX 13 - ANALYSIS OF VARIANCE		257

LIST OF TABLES

Table 2.1	Taxonomies of accountability in Education	38
Table 3.1	Cronbach's alpha sample size determination	116
Table 3.2	Participants in the pilot study	121
Table 4.1	Distribution by Gender (school managers)	129
Table 4.2	Age group of respondents (school Managers)	130
Table 4.3	Highest professional qualifications (school managers)	131
Table 4.4	Number of years served as a school manager	131
Table 4.5	Number of years served as school manager at the current station	132
Table 4.6	Acquisition of financial resources.....	133
Table 4.6.1	Cumulative variable on the acquisition of financial resources.....	134
Table 4.7	Utilisation of financial resource.....	135
Table 4.7.1	Cumulative variable on the utilisation of financial resources.....	137
Table 4.8	Financial procedural practices.....	138
Table 4.8.1	Cumulative variable on the acquisition of financial resources.....	140
Table 4.9	Material resource acquisition	141
Table 4.9.1	Cumulative variable on the material resources acquisition.....	142
Table 4.10	Compliance to procedure on financial resource utilisation.....	143
Table 4.10.1	Cumulative variable on material resources acquisition.....	145
Table 4.11	Compliance for financial resource utilisation (Accounts Assistants projection).....	146
Table 4.11.1	Cumulative variable on the of financial resource utilisation.....	148
Table 4.12	Compliance to procedure for financial resource utilisation (Accounts Assistant).....	149
Table 4.12.1	Cumulative variable on compliance to procedure for financial resource utilisation....	151
Table 4.13	Managerial accountability and compliance.....	152
Table 4.14	Control of Material Resources.....	155

Table 4.15	Accountability and economic usage of stationery.....	156
Table 4.16	Accountability and economic usage of water	157
Table 4.17	Accountability practices and economic usage of electricity	158
Table 4.18	Accountability and economic practices.....	160
Table 4.19	Material and financial resource utilisation.....	163
Table 4.20	Compliance to set standards in resource utilisation.....	166
Table 4.21	Monitoring and control of material resources.....	167
Table 4.22	Stores accountability tools and compliance.....	169
Table 4.23	Outer loadings and Internal consistency Reliability.....	175
Table 4.24	Convergent Validity and Discrimination Validity.....	175
Table 4.25	Path Coefficient.....	176
Table 4.26	Results of Coefficient of Determination and Predictive Relevance.....	176
Table 4.27	Results of f	177
Table 4.28	Summary of Hypotheses Testing	177
Table 4.29	Outer loadings and Internal consistency Reliability.....	179
Table 4.30	Convergent Validity and Discrimination Validity.....	179
Table 4.31	Path Coefficient.....	180
Table 4.32	Results of Coefficient of Determination and Predictive Relevance.....	180
Table 4.33	Results of f	140
Table 4.34	Summary of Hypotheses Testing	181
Table 4.35	Outer loadings and Internal consistency Reliability.....	182
Table 4.36	Convergent Validity and Discrimination Validity.....	183
Table 4.37	Path Coefficient.....	184
Table 4.38	Results of Coefficient of Determination and Predictive Relevance.....	184
Table 4.39	Results of f	184

Table 4.40	Summary of Hypotheses Testing	185
Table 4.41	Correlation Matrix 1: Acquisition of financial resource	186
Table 4.42	Correlation Matrix 2: Compliance to procedure	187
Table 4.43	Correlation Matrix 3: Compliance to laid down procedures	188
Table 4.44	Correlation Matrix 4: Material resource acquisition	189
Table 4.45	Correlation Matrix 5: Control of resource utilisation	190
Table 4.46	Correlation Matrix 6: Material resource Acquisition	191
Table 4.47	Model Summary.....	192
Table 4.48	Linear Regression of the Seven Independent Variables and Dependent.....	194
Table 4.49	Provincial performance 2015 – 2019 grade 12 provincial overview (Copperbelt).....	198
Table 4.50	Performance by school in Mpongwe district.....	198
Table 4.51	Performance by school in Mufulira district.	198
Table 4.52	Performance by school in Kitwe district.....	198
Table 4.53	Performance by school in Luanshya district.....	199
Table 4.54	Performance by school in Kalulushi district	199
Table 4.55	Performance by school in Chililabombwe district	199
Table 4.56	Performance by school in Ndola district	199
Table 4.57	Performance by school in Masaiti district	199
Table 4.58	Performance by school in Chingola district	200
Table 4.59	Performance by school in Lufwanyama district	200
Table 4.60	School Performance Index.....	201
Table 4.61	Copperbelt grade 12 Performance index 2015 – 2019.....	202
Table 5.1	Relationship between Managerial accountability and school Performance	214

LIST OF FIGURES

Figure 1.1	Educational Accountability in secondary schools	19
Figure 1.2	Schematic representation of the conceptual framework	21
Figure 1.3	Conceptual framework	23
Figure 2.1	School Manager Accountability Framework.....	60
Figure 2.2	Financial management cyclical system	71
Figure 2.3	The Budget cycle	72
Figure 2.4	Organisational presentation of school resources management	100
Figure 3.1	Quantitative Research approach	108
Figure 3.2	Descriptive of Quantitative Methods,	110
Figure 3.3	Quantitative Sampling Procedures.....	114
Figure 4.1	Response Rate	128
Figure 4.2	PLS Path Model Estimation.....	174
Figure 4.3	PLS Path Model Estimation (Accounts Assistant projection)	178
Figure 4.4	PLS Path Model Estimation (Stores Officer projection)	182
Figure 4.5	Blue Valley Secondary School Overall Performance.....	203
Figure 4.6	Divine Girls Technical Secondary School.....	203
Figure 5.1	Conceptual Framework Model.....	207

ABBREVIATIONS AND ACRONYMS

DEBS	District Education Board Secretary
FM	Financial Management
MOE	Ministry of Education
PEO	Provincial Education Officer
PFM	Public financial management
PTA	Parents Teachers Association
SAS	Statement of Accounting Standards
SEB	School Education Board
SPSS	Statistical Package for Social Sciences
UK	United Kingdom
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USAID	United States Aid
USA	United States of America

OPERATIONAL DEFINITION OF TERMS

- Accountability:** *Accountability means responsibility, answerability, blameworthiness, and liability (London, 2003).*
- Financial Resources** *Financial resources refer to money. For any organisation to achieve its objectives, money allotted for its implementation must be well utilised.*
- Efficiency:** *In this study, it refers to the maximum use of resources and in the right quantity to produce the most effective teaching and learning.*
- Financial Management:** *According to [CITATION ros15 \l 1033], Financial management is a control system that can optimally utilise the available money to produce good results*
- School Manager:** *This is a qualified trained teacher who has been appointed by TSC and given full responsibility for running a secondary school. S/He is the overall manager of the school.*
- Transparency:** *Stakeholders have access to information about commitments that the operatives are tasked with and whether they are met.*
- Physical Resources** *Materials resources are utilised by educational institutions in the process of implementing educational programmes.*
- Public school:** *A school in which the government meets teachers' salaries and provides tuition fees for students.*
- Resource utilization:** *Use of financial, physical, and learning resources for teaching/learning.*

CHAPTER ONE

ORIENTATION OF THE STUDY

1.1 Chapter Overview

The chapter provides introductory information on the study. It presents the background and contextual analysis, rationale for the study, the statement of the problem, the aim of the study, research objectives, research questions, epistemological foundations, preliminary literature review, theoretical perspective and theoretical framework, conceptual framework, hypotheses that came out of the conceptual framework, the significance of the study, limitations, and delimitations of the study. It also provides the chapter conclusion and the projection of the next chapter.

1.2 Introduction

As the economies of nations compete for strong positions within a competitive global marketplace, many governments have become increasingly interested in the performance of all aspects of their education systems. This trend coupled with the enormous expenditures that are devoted to education has precipitated widespread public requests for higher levels of scrutiny concerning the quality of education being provided. The demands for information about the school system's performance can only be addressed through the implementation of systematic accountability systems.

Historically, the education profession has conformed to the requirements of regulatory or compliance accountability systems (usually based on government statutes) and has also subscribed to professional norms established by associations of educators. However, at the beginning of the 21st Century, accountability systems have been required to respond to demands that professional performance is judged by the results that have been achieved (Anderson, 2005).

Accountability is often regarded as the bedrock of 'good' public management. Therefore, school manager accountability is critical in this regard. Today in Zambia, school managers are faced with a new 'attentional economy' in which schools are seen to perform and to perform in ways that are measurable and thus are rendered visible to all. This could be attributed to several factors including; limited resources, reforms in the education systems that impose rapid changes in the governance systems high demand for managerial skills and operational autonomy, and lack of accountability by school managers in the utilisation of scarce school resources. These tend to impose the need to optimize performance transparency of behaviour and dialogue with

education stakeholders to grow results in the school system. By recognizing the role of education in local and national development the Zambian governments past and present have striven to put in place policies and strategies aimed at improving the education sector. from the First National Development Plan (1966–1979) to the present Eighth National Development Plan (8 NDP - 2022–2026), which is the country's blueprint for development for the next five years, up to 2026. It envisions a prosperous middle-income economy that offers decent employment opportunities for all Zambians of different skills and backgrounds which can only be achieved by harnessing education as a driver of socio-economic development by improving the quality of education and increasing access.

Accountability covers a diverse array of means by which some broad entity requires some providers of education to give an account of their work and holds them responsible for their performance. It draws attention to the importance of active long-term positive relations between schools, students, families, government authorities, and other structures of public administration to improve quality and performance in school management. It is critical to have an effective accountability system as a starting point to develop the quality of relations between the schools and stakeholders in raising awareness about the cycle of performance management in schools especially the optimization of the use of public resources.

1.3 Background to the study

There is a general and widespread notion or misconception prevailing among school communities that school managers are less accountable in the allocation and utilisation of financial and material resources in public secondary schools in Zambia. Education communities have further accused school managers of ineffectiveness and inefficiency in terms of resource control (Ndiang’ui, 2012). Some studies argued that poor application of internal audit principles and procedures leads to the blatant diversion of scarce resources with its attendant consequences on the traditional accountability of government to the public (Mupeta, 2017). As a result, there is an acute need to ensure that the allocated resources are used for the intended purpose through internal auditing.

Nsikan and Emmanuel (2015) state that failure in the proper and prudent utilisation of financial and material resources was attributed to unfriendly policy implementations, inability to access financial resources consistently, and complete lack of courage to implement policies and further mismanagement of financial and material resources by successive governments and school managers. Education communities, in terms of this notion, put the blame squarely on the school manager. Communities and other education stakeholders believe that school managers are the

major perpetrators of this alleged mismanagement (Rangongo et al., 2016). In the face of this state of affairs, it is critical to establish whether school manager accountability practices in the utilisation of financial and material resources are in sync or not with the laid down procedures. To this effect, Eriksen (2021) believes that accountability is about the answerability to mandate and thus the question to be answered is: are school manager practices in this regard answerable to the laid down rules and regulations?

Hopkins (2007) defined accountability as an integrative concept with controversial meaning and function as process-oriented or product-oriented accountability and internal/external accountability. This viewpoint distinguishes accountability from control and inspection systems found in the traditional administration approach and makes it a much more complex structure to understand, define, and implement. The importance of accountability in organisations causes it to be analyzed in different areas and makes the definitions and content of accountability more complex (Acar, 2013). Being such an important concept for organisations, accountability is generally accepted as closely associated with organisational effectiveness (Hoy & Miskel, 2010).

Accountability is a cornerstone of contemporary education policy which is why they consider it a 'virtuous practice' (MacIntyre 1984); accountability is also viewed by others as indistinguishable from 'good governance' and transparency (Bovens 2006; Dubnick 2014; Gorur 2017; Stensaker & Harvey 2011). Widespread interest in accountability is reflected in research, where the use of the term increased tenfold in studies published between 1965 and 2000 (Dubnick 2014). Accountability is indeed a buzzword in global education policy. For example, the Education 2030 Framework for Action, passed by UNESCO member states in November 2015, refers to accountability in the forms of 'accountability,' 'accountable,' or 'to account for' more than 20 times (UNESCO, 2016a). In the context of standards-based reform, accountability is part of a broader integrated policy package, for providing incentives to students and teachers to perform. It is a transitive activity where someone is accountable to someone else for something. For example, Governments are accountable to their citizens for delivering public goods and services, including education.

Tawari (1995) explains that accountability in the school system helps to protect public funds from misuse as well as fostering a committed pursuit of educational goals by administrators. In this way, educational accountability enhances teaching and learning in the school system. Consequently, strengthening the accountability role of the school manager in the delivery of quality education is central in the education sector.

Accountability is a very important desired trait for any organisation for the four very important reasons: (i) Accountability builds trust (ii) Accountability improves performance (iii) Accountability promotes ownership (iv) Accountability inspires confidence. Artley (2001) says that “accountability is a process that is outcome-orientated, with the final goal of improving performance. Public officials must be answerable for the effectiveness and efficient use of public funds and other material resources provided to specified activities”. So, to improve control, sustained efforts were required to enhance effective expenditure against wasteful consumption. It is important to note that accountability has been an educational issue for as long as people must pay for and govern schools. It is a key component of the school system. According to NOUN (2008), accountability in education is the answerability to one's activities in the instructive framework. It is the condition of being responsible to the partners in instruction and responsible for the assets/materials utilised in teaching and learning. This suggests that accountability is a proportion of the degree to which every single accessible resource in a gainful framework is utilised for more prominent effectiveness and efficiency.

The term accountability covers a diverse array of means by which some broad entity requires some providers of education to give an account of their work and holds them responsible for their performance. An accountability system is the set of policies and practices that a government uses to measure and hold schools and districts responsible for raising student achievement to prompt and support improvement where necessary. The purpose of Accountability Systems in education is generally to improve teaching and learning by.

- ❖ Monitoring the learning process and holding students, teachers, and administrators responsible for the learning outcomes.
- ❖ Certifying teacher quality.
- ❖ Evaluating school and programme effectiveness.
- ❖ Ensuring equal opportunities to learn for all students.
- ❖ Evaluate and compensate teachers based on their students' performance.

In several countries, accountability has become the most recent watchword in education and policymakers were moving to reward achievement and punish failure in schools, to ensure that learners are getting a good education and that expensive material resources aren't being wasted. Elmore (1999) emphasizes that; "accountability for student performance is the most prominent issue in policy in most countries right now." The push for accountability has grown out of a common perception that monitoring the "inputs" in public education such as the number of books in the school library or the number of computers in the classroom paid too little attention to

performance and it has been cited as one of the factors associated with positive outcomes in public services. In education, accountability is associated with improved school performance (Levitt, Janta & Wegrich, 2008). However, for this improvement to materialize, there must be a well-established accountability framework, relationships, and arrangements.

The literature argued that the outcomes of accountability are not always positive and if they are not well-planned, accountability dysfunction may occur. Accountability dysfunction primarily results from a lack of supportive structures within the education system and accountability overload, that is, having too many overlapping evaluation criteria and/or too many stakeholders and supervisors, each with his or her requirements for reporting purposes with which the actor is expected to comply (Levitt et al., 2008).

Managerial accountability refers to the answerability of managers for the work and results of their organisations (Organisation for Economic Co-operation and Development, 2018). It implies responsibility in all aspects of management, from planning to reporting and from delegation to control. Managerial accountability means both conformities to rules and procedures (compliance) and a clear focus on results. This is in line with the definition of accountability which is given in the Principles of Public Internal Control provided by the European Commission (OECD/SIGMA, Paris 2017 - pg.6) as follows:

Accountability is an obligation to account for and answer for the execution of responsibilities to those who entrusted those responsibilities (obligations to perform). These responsibilities were delineated by the actor's authority (empowerment) and the right to act. Accountability involves the provision of information on, as well as explanation and justification of actions, activities, and choices.

In the Croatian Law on Public Internal Control issued in July 2015, managerial accountability was defined as follows:

Managerial accountability means the accountability of the manager for his or her decisions and actions, including the ones related to managing funds, to those people who appointed them or delegated their powers and responsibilities.

Managerial accountability is a critical tenet for ensuring economic, efficiency and effectiveness in the delivery of government policy objectives by following laws, regulations, and internal and external procedures. It means both a clear focus on performance and compliance with rules (Van

de Walle, 2018). Public administration reforms generally have proven especially difficult in the absence of good conditions for managerial accountability (Peters, 2014). Managerial accountability implies responsibility for sound financial and material resource management at all levels of the organisation.

According to Kokach (2006), management is the acceptance of personal accountability determined by measurable results. Management is the arrangement of available resources for the achievement of desired goals and objectives (Nwune, Nwogbo & Okonkwo, 2016). It is the productive utilisation of available resources in an efficient and effective manner geared towards goal realization. It is a process of coordinating a variety of resources, human and non-human, that manipulates the process for the desired and measurable outcome. This implies that accountability is a measure of the extent to which all available resources in a productive system are utilised for greater efficiency and productivity.

Nkwoh (2011) observed that school managers must possess a wide array of competencies to lead schools effectively towards the accomplishment of educational goals, which leads to changing expectations of what society needs to know and be able to do. Competency as opined by Carol and Edward (2004) is the successful performance of a task using knowledge, skills, attitude, and judgment. It is the ability and required skills to accomplish a given task. Managerial competency is the possession of necessary skills to effectively manage resources for productivity. Competency to manage financial and material resources is what is lacking in most secondary school managers in Zambia as can be seen from the Auditor General's report of 2020. Due to a lack of orientation when someone is given a higher position and jumping positions, most school managers do not understand their job description and functions.

Heller (2012) outlines the functions of school administrators as including management of instructional programmes, staff personnel administration, students' personnel administration, finance, physical resource management, and community relationship management. Effective management of material and financial resources is crucial for institutional sustainability and the development of a school action plan in financial and material resource management. Financial management is a process with several activities which include identification, measurement, accumulation, analysis, preparation, interpretation, acquisition, allocation, budgeting, and communication of information (both financial and operating). According to Oosthuizen (2003), financial management in education is the distribution and use of money (funds) to provide

educational services and produce learner achievement /or results. Financial management in contemporary education management aims to:

- ❖ Estimate the needs for local educational training.
- ❖ Obtain finances in accordance with the estimated needs.
- ❖ Administer the finances obtained in a legally correct and acceptable manner.

To facilitate the above, Owen (2006) asserts that financial numeracy is a core skill for all school managers. Most financial management skills involve the allocation of resources and the setting up of targets, expectations, and priorities.

Financial and material resources accountability is the use of financial and inventory information, skills, and methods to make the best use of an organization's resources. Financial management means planning, organizing, directing, monitoring, and controlling the financial activities of an organization (Denis, 2018). Financial and material resources are valuable engines and play a pivotal role to run the effective performance of tasks and in the growth and development of human organizations.

Financial and material resources are significant and often assumed to be a part of physical capital. They are actually the procurement, allocation, and utilization of all the resources. Since the human economy is a monetary economy, the availability of financial and material resources in any organization or institution is vital to its productive process and the quality of its products and services (Tadiwos, 2014). Likewise, the study by Tadiwos (2014) indicated that the critical challenges for ineffective utilization of financial and material resources in schools are a release of budget allocated to schools very lately, lack of adequate skilled manpower that controls effective budget utilization, and engagement of school management on different duties. lack of planning and performing the school activities together with stakeholders, interferences of school managers in all works, and lack of managerial accountability skills in financial and material resources utilisation in school.

Lewis (2003) described financial accountability as a moral or legal duty, placed on an individual, group, or organisation, to explain how funds, equipment, or authority given by a third party have been used. In the case of a school, this includes parents, the education community, and the Ministry of Education. School financial accountability, therefore, stems from the notion of accountability as reporting school finances to school stakeholders. Moreover, Van Deventer and Kruger (2003) maintain that an important characteristic of the present approach to education

management in general and financial management, in particular, is the emphasis on transparency and information-sharing among all stakeholders.

Accountability in Education has always been ranked high on the Zambian development agenda since its independence in 1964. Every decade has seen major education policy pronouncements aimed at improving access to quality education for all which were all consolidated through the development of the National Education Policy, *Educating our Future*, in 1996 and the enactment of the Education Act of 2011. The effectiveness of schools depends on accountability and management of financial, and material resources as these are basic things that can bring about good academic performance for learners.

Furthermore, Okoroma (2007) identified four areas of educational accountability as (i) accountability for Cash and (ii) accountability for Things: that is physical facilities of the school. (iii) Accountability for Actions and (iv) Accountability for Results, which deals with the accomplishment of goals and objectives. Accountable school managers were responsive. Accountable school managers:

- ❖ Behave in accordance with rules and laws (bureaucratic accountability).
- ❖ Provide goods or services that satisfy the needs of students, parents, and the community who were the customers and major stakeholders (market accountability).
- ❖ Measure up to generally agreed-upon expectations (performance and process accountability).
- ❖ Act in the best interest of the students who were the clients and exercise judgment in ways that were consistent with the best research in the field (professional accountability).

Material resources according to Odigbo (1999) refer to either fixed or movable objects, equipment, supplies, and facilities that may be private, public, or government property that may be turned into educational use for the attainment of set goals. Geoffrey and Everard (1985) stated that it is important to make sure that material resources present in a school are known and that there is a need for keeping up-to-date inventories that are periodically checked.

Material resources are physical resources utilised by educational institutions in the process of implementing educational programmes. They act as ancillaries for the achievement of educational goals and objectives. Educational material resources are an integral part of a well-

organised school system. It could be understood to be any material that is used to facilitate the overall teaching and learning process in schools. They include textbooks, visual aids, charts, maps, laboratory equipment, chalkboard/whiteboard, playground, and other materials applied in the education system.

Usman (2016) sees material resources as tangible resources that can easily be seen and observed in any educational institution, such as classrooms, staff offices, vehicles, libraries, laboratories, instructional facilities and so on which directly or indirectly contribute to the achievement of educational goals and objectives. The school system may not attain its set goals without proper management of materials and resources. Storage and distribution of materials are essential aspects of material resource management in schools. When materials are supplied or purchased for use in the school, there is a need for proper storage and accountability. Bernstein (2003) notes that most school facilities and equipment were centrally stored. Akindele (2004) observed that the school administrator's office in most cases is often converted to the school storehouse, this has led to a lot of losses of material resources.

Material resources are most often investments the school makes with cash resources. Every year, schools and the Government purchase textbooks, curriculum materials, equipment, furniture, and many other costly items. It's rarely difficult to get these things if the funds are properly allocated in the budget. The difficult task is managing and maintaining these resources. To ensure proper maintenance of material resources, procedures are put in place for using each item. If students were using laptops in the classroom, they were signing them out each day. If students are taking textbooks home with them, both parents and students are informed of the consequences of damaging or losing the items. Inventory or record keeping of the material resources in school is an important area of material resource management.

Okafor (2006) noted that material resource management is as important as human resource management. The material resources in schools are essential as they are needed for the positive realization of the objective of the organisation. Accountability has become a collective responsibility of all stakeholders in various sectors of education inclusive. At the school level, this means that the school manager and the school board, should responsibly deal with limited school resources and understand that they are accountable to the learners, parents, the community, and the Ministry of Education at large. The democratic principle of accountability is one of the pillars on which Zambia's educational policy rests. Hence, the Ministry of Education institutes whatever measures necessary to ensure that all government, donor, and community

funds for education were properly utilised and accounted for. Low levels or in some cases lack of accountability by most school managers in Zambia in the absence of adequate human resources (teachers), facilities, and other resources contribute to making the realization of educational goals difficult.

Helle et al., (2011) emphasized that transparency involves clear and public disclosure of information, rules, plans, processes, and actions by governments, companies, organisations, and individuals. A lot of accountability systems to economically control the usage of limited resources in public secondary schools have been put in place but these accountability systems and procedures have not been fully successful. Public funds have been mispent and misapplied in the Ministry of Education and its institutions; donor funds have been misapplied; private funds raised by Parent-Teacher Associations and in other ways have been misused by school authorities (Educating Our Future, 1996). No matter the circumstances, this is quite unacceptable. But it is even more unacceptable given the circumstances of national financial stringency and the deep and widespread poverty of families, the school manager providers of finance for education.

Usman (2015) further observed that there are problems inherent in the school administrative procedures, instructional process, and the product of the education system regarding accountability. Schools are no longer making the desired noticeable impact in achieving the set objectives of education and this constitutes a threat to the nation's aspiration to be among the top economies in the world.

In Zambia, the major government concern, therefore, has been on how well the national education policy and practice promote equality, equity, efficiency, partnership, pluralism, transparency, and accountability. It was with this view that the National Policy on Education (Educating Our Future, 1996- currently in use) was conceived based on the democratic principles of efficiency, equity, accountability, and cost-effectiveness which called for a drastic restructuring of the existing highly centralized education system to a decentralized one. Due to the many legitimate competing demands for resources in the country (Zambia), the number of financial resources available for education is limited. To ensure the best possible use of limited available resources and to allow for full public accountability, the Government of the Republic of Zambia has put in place systems at national, provincial, district, and institutional levels to attain effectiveness and efficiency in resource utilisation and accountability of material and financial resources.

The Government as the principal funding source and the custodian of public interests has underlined the importance of public accountability and has established a policy that ensures suitable quality assurance and public accountability systems for the prudent utilisation of limited financial and material resources (Educating Our Future, 1996).

1.4 The rationale for the study

Accountability of financial and material resource utilisation is an area of significant importance to education providers, policymakers, and other stakeholders in the education community. In the school system, accountability is usually linked to the management of scarce financial and material resources by ensuring prudent utilisation of available resources for the accomplishment of the set goals of education. The integration of financial and material resource accountability in the education management processes helps to improve service delivery and control indiscipline in the organisation thereby increasing efficiency in the system. School managers recognize that accountability in the utilisation of financial and material resources in school is an essential ingredient that is intertwined with subordinates within the organisational framework (Usman, 2016).

Mestry (2011) pointed out that, for the sake of transparency and the application of democratic principles, it is advisable to include the various stakeholders in different committees. In this regard, delegation plays a crucial role in practicing accountability and transparency in the allocation and utilisation of financial and material resources. Material resources in school are considered as major instruments for raising quality and educational effectiveness. Quality education can only be attained if there is accountability in the allocation and utilisation of financial and material resources in the school by the responsible officers. Education materials are scarce and costly resources; enhancing school performance depends on the prudence allocation and utilisation of school resources for effective service delivery (Majlinda & Bekins, 2013).

Furthermore, Hallak (1990) pointed out that in the process of establishing a plan of priorities for investment in education and training, policymakers should, simultaneously, take into consideration the need for increased efficiency, serviceability, and functional reliability in the utilisation of material resources in schools. UNESCO (2010) observed that even if countries make great efforts to allocate and utilise financial and material resources prudently, they are not always employed to the optimum degree. Therefore, the emphasis is always on material resource accountability in education institutions. There was, therefore, an ultimate need for this study to

explore school manager accountability practices in financial and material resources utilisation in order to infer implications on school performance. This was done by scrutinizing school manager accountability practices in relation to compliance to set procedures in the procurement, allocation, and utilisation of school resources and also by analyzing school manager skills in financial and material resources management.

It is the researcher's view that this study would help improve school performance levels by holding school managers accountable for their actions in the allocation and utilisation of financial and material resources in schools.

1.5 Statement of the problem

There is a general misconception among school communities asserting that school managers are less accountable in the allocation and utilisation of financial and material resources in public secondary schools in Zambia. Mambo (2012) argued that due to the decentralized financial management in school accountability and transparency levels have gone down due to a lack of collaboration and synergy among the stakeholders involved in the management of funds. Ngosa and Mwanza (2021) stressed that there are warnings of weak accountability and misuse of resources in the education sector in Zambia. These assertions have been supported by the cross-cutting analysis of the Auditor General's reports (2020) which revealed an upward trend of gross financial irregularities, embezzlement of funds, and failure to secure material resources in the Ministry of Education (Republic of Zambia Auditor General's Report, 2020).

This is consistent with Subramanian (2012) who found that in sub-Saharan African nations, such as Kenya, Malawi, and Zambia, the fiscal administrative frameworks for accountability were deficient and the budgetary procedure required a thorough review, because of low control levels on expenditures and the non-existence of the clear responsibilities. Such a situation has serious implications on the quality of education provided and, in most cases, it is generally compromised falling far short of the required standard for personal and national development. Further, findings from Mbobola (2013) reveal that school managers, especially in rural areas lacked financial management skills.

In addition, the Millennium Development Goals Document (MDGs) Progress Report (2015) and other studies by Mestry and Govindasamy (2013), Thenga, (2012), Xaba, (2011), and Rangongo (2011), indicate that school managers are not trained in financial management. This situation may continue to pose challenges regarding financial accountability in schools. In the school

system, school managers were at the centre of this challenge and are largely blamed rightly or wrongly and are generally seen as wanting in managerial accountability. Considering this delusion, this study delved into exploring school manager practices in the allocation and utilisation of financial and material resources in public secondary schools in order to ascertain or disapprove of the prevailing notion and also to highlight the now and future implications following empirical evidence regarding the actual situation on the ground.

1.6 Purpose of the study

Specifically, the study analyzed school managers' managerial skills and accountability practices in managing, allocating, and utilising of financial and material resources in selected public secondary schools in the Copperbelt Province of Zambia.

1.7 Research objectives

To reach the aim of the study, the following objectives were framed:

1. To explore school managers' practices and procedures in the allocation and utilisation of financial and material resources.
2. To identify and evaluate tools school managers use to monitor financial and material resource utilisation.
3. To assess levels of school manager compliance to set accountability standards.
4. To evaluate the impact of managerial accountability on performance of public secondary schools

1.8 Research questions

1. How do school managers allocate and utilize financial and material resources in public secondary schools?
2. What tools do school managers employ to monitor the utilization of financial and material resources in public secondary schools?
3. To what extent are school managers compliant with accountability requirements in public secondary schools?
4. How does managerial accountability impact performance in public secondary schools?

1.9 Theoretical perspective

A theoretical perspective is defined as “the theoretical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria” (Crotty, 2003). Since the ontology of the first study is mainly concerned with the human world of meanings and

interpretations and the epistemological stance is objectivism. Objectivist epistemology holds according to (Crotty, Ibid) that meaning, and therefore meaningful reality, exists as such apart from the operation of any consciousness. It means that the mind of the investigator is thought to be separate from the world of objects, of what is investigated, thus, it is logically sequenced that positivism is the theoretical perspective underpinning this study.

According to Creswell (2013) supported by Maruster and Gijsenberg (2013), a researcher brings to the inquiry a set of beliefs, perspectives, and paradigms that guide action on how to formulate the research problem and research questions and how to seek information to answer the questions around assessing school managers' accountability practices and how these exert on performance in public secondary schools in Copperbelt province in Zambia. Whilst answering the ontological, epistemological, and axiological questions, the form of the research design and the methods of data collection were informed (Briggs, et al., 2012; Creswell, 2013) and discussed in detail below.

The researcher adds that the selection of the above method is based on the ability to provide an opportunity to capture the facts quantitatively. The quantitative method relies on the collection and analysis of numerical data to describe, explain, predict, or control variables and phenomena of interest (Gay, Mills, & Airasian, 2009). One of the underlying tenets of quantitative research is a philosophical belief that our world is relatively stable and uniform, such that we can measure and understand it as well as make broad generalizations about it.

1.10 Theoretical Framework

The theoretical framework points to school manager accountability practices in financial and material resource utilisation and their implications on school performance comprising the planning and implementation of a financial plan, accounting, reporting, and the protection of assets from loss, damage, and fraud. All items of financial management are exposed to the risk of incorrect, improper, and ineffective school management, which is particularly reflected in the accounting control of an institution. Schools can regulate their accounting with at least two internal rules: accounting rules and instructions on inventory checks. If the school does not have the above-mentioned internal rules, there is a risk that internal controls are not set. This means a great risk of incorrect and ineffective management as well as unintended use of the school's public or private financial resources.

The internal control system comprises a system of procedures and methods to assure compliance with the principles of legality, transparency, efficiency, effectiveness, and managed economy.

Related to internal control, internal auditing appears which provides an autonomous assessment of financial management and control systems as well as counseling to the school leader on how to improve their efficiency.

The education sector in Zambia is faced with myriad problems. Prominent among the problem areas that bring to light the poor show of the sector are the low-quality school products, flawed administrative processes, politicized employment and appointment of school management, poor supervision, defective quality assurance and control mechanism, and low accountability in the school system.

This study used the accountability theory offered by Tetlock (1985). Tetlock advanced that individuals are possibly responsible for the judgment and choices they express (1985). It is imperative to take note that, the development of the theory in accountability research has been dominated by relatively few numbers of major contributors. Among these competing conceptualizations are those established in the phenomenology of accountability (e.g., Tetlock, 1985), those that assess it versus its relationship to responsibility (e.g., Schlenker, 1986), and deviation from social expectations (Cummings & Anton, 1990).

The phenomenological perspective of accountability, in light of Tetlock's (1985) social contingency model, incorporates a few exactly recognizable, notable sub-segments regular to the social psychology literature. These include (a) the mere presence of others (individuals expect that others observed their performance)(Zajonc, 1965; Zajonc & Sales 1966); (b) identifiability (individuals believe that what they say or do were linked to them personally) (Price, 1987; Zimbardo, 1970); (c) evaluation (participants expect that their performance was assessed by another according to some normative ground rules and with some implied consequences) (Geen, 1991); and (d) reason-giving (individuals expect that they must give reasons for their attitudes or behaviors) (Simonson & Nowlis, 2000). Regardless of the pervasiveness of the phenomenological view, an intriguing detachment exists in empirical investigations of accountability.

The social contingency model (e.g., Tetlock, 1992) proposes that accountability is largely subjective and internal. However, the preponderance of empirical accountability studies has treated accountability as an objective, external condition (Frink & Klimoski, 2004; Lerner & Tetlock, 1999). This limitation has caused researchers to potentially miss many facets of informal accountability for others, leaving the construct largely underdeveloped. A significant component

of the phenomenological view is its thoughtfulness regarding people's practices relying upon the time at which they understand they are accountable. It is possible individuals know *a-priori* that they are accountable for a given course of action. On the other hand, they may not know the audience to whom they answer until they have already made pertinent decisions. The phenomenological view predicts various practices dependent on this qualification. Generally, studies have shown that when individuals believe they have to justify their views, they express opinions consistent with those perceived to be held by the audience (e.g., Brief, Dukerich, & Doran, 1991). These findings helped substantiate Tetlock's (1992) contention that the acceptability heuristic (often resulting in the rendering of lower quality, less cogent, and complex decisions), is likely to occur as individuals seek to conform as opposed to coming up with the "best" solution. On the off chance that people don't have the foggiest idea about the crowd's feelings and in this manner can't consequently adjust, Tetlock (1992) contended they would preemptively self-criticize. As far as proactive practices, preemptive self-analysis is probably going to yield the most thorough and integrative dynamic systems. In actuality, people consider the same number of "points" as conceivable before deciding the most proper game plan. In any case, numbness to the assessments of the investigating crowd isn't sure to deliver integrative vital reasoning. For instance, both intellectual cacophony (Festinger, 1957) and the impression of the executives' speculations (Schlenker, 1980);

Tetlock (1985) anticipates that people would participate in review sanity (i.e., defensive bolstering) when their behaviors are at odds with the opinions and standards of the reviewing audience. Staw and Ross (1980) validated this assumption by showing that post-decisional accountability encouraged individuals to generate reasons as to why they were not wrong to act as they did. Tetlock explains the strategies people choose when faced with a situation of accountability using the image of the cognitive miser and man in a political environment. The cognitive miser analogy views man as an isolated information processor in a restricted laboratory environment.

Tetlock advances 'hard-core' assumptions which include mentalism and individuals. The assumptions emphasize the belief in the supremacy of the cognitive structures and processes of the supreme individual knower. As such, thought and action are seen as a product of the individual thinker not influenced by the social setting in which the individual is embedded. Tetlock, et al, (1985) posit that in such a relationship, accountability is a vital feature of decision-making and, as such, persons in positions of responsibility ultimately be held accountable for the decisions they make. For purposes of holding the 'actors' accountable, they are required to provide

information to the 'audience' regarding what they expect of them (Tetlock, 1983) against which they may be required to justify their beliefs and actions. Whilst making decisions, leaders are expected to weigh alternatives (Chaiken & Trope, 1999) and make significant trade-offs (Eacott & Norris, 2014). From this standpoint, accountability is viewed as a crucial norm for enforcement, and failure to exhibit behaviour that can be constructed as acceptable leads to censure (Tetlock, 1983; Schlenker, 2008).

In support of the foregoing discourse on Tetlock's accountability theory, Lee, Kim, and Wansoo (2012) affirm that the audience's voice underpins judgement and, as such, plays an active role in forming the actor's behaviour (Tetlock, 1985; Chaiken & Trope, 1999). Hence, the clients can improve service delivery by demanding and monitoring services tailored to meet their needs from the providers. According to Tetlock (1999), accountability theory links individual decision-makers to the institutions within which they live and work by reminding them of the need to (i) act in accordance with prevailing norms and (ii) advance compelling justifications or excuses for conduct that deviates from those norms. It advocates that no social system can function for a sustained period without accountability checks. The theory, therefore, stipulates that trust and norm internalizations are necessary but hardly sufficient for the smooth functioning of institutions. From the standpoint of accountability theory, every request for justification raises the question of how one defends oneself in the eyes of either external constituencies or internalized ones.

Lerner (1999) reveals that accountability has been invoked as a solution in several education fields, including failing schools due to lack of accountability. Touring the same line of argument, in their study entitled 'Social and Cognitive Strategies for Coping with Accountability', Tetlock et al. (1989) found that accountability would motivate actors to be committed and would restate a failing policy. School accountability and its effect on educators' work has been one of the major concerns of both research and policy in recent years (Ambrosio, 2013; Darling-Hammond, 2007; Lee & Wong, 2004; Knapp & Feldman, 2012; Miller & Smith, 2011).

School accountability is the expectation that schools' academic achievements are transparent and officially reported, resulting in performance assessment and consequent rewards or sanctions. Perhaps the best example of a school accountability policy is the American No Child Left Behind (NCLB) Act 2001 (later revised as Every Child Succeeds Act, 2015). According to NCLB, an elaborate standard-based school evaluation system is activated to obtain school staff compliance with government performance standards and appropriate rewards. This policy has yielded various

consequences for teachers' work behavior: roles changed (Valli & Buese, 2007), curricula narrowed (Darling-Hammond, 2007) and motivation decreased (Finnigan & Gross, 2007). To date, most studies on the effect of low accountability by school managers' have raised a lot of issues and it is believed that it has contributed to the low standards of education in most schools. School managers need to understand that they are accountable through being located in an accountable environment.

Accountability means “holding people answerable for their decisions and actions” (Hall et al., 2009). Individual-level accountability is rooted in the more abstract concept of responsibility, more particularly the responsibility of office (Lucas, 1993). While responsibility involves an inner commitment to one’s obligations, accountability is a more concrete notion, necessarily involving commitment to meeting standards and reporting to end parties. Unlike responsibility, accountability is regarded as the adhesive among components, where one is answerable to some audience.

Frink and Ferris (1998) viewed accountability as a system of review of behaviour by some constituencies, with substantial rewards or punishments being contingent on the review. If there is a low or lack of accountability in learning institutions, the School Education Board (SEB) collectively may be held accountable by the ministry as per Education Act Chapter 134 of the Laws of Zambia and the parents for failing to ensure that finances and material resources allocated to their schools were well utilised.

The researcher used Tetlock's theory of accountability in relation to research questions to interpret and analyze the data that was collected. School managers were, therefore, expected to make known their local policies and practices to the community.

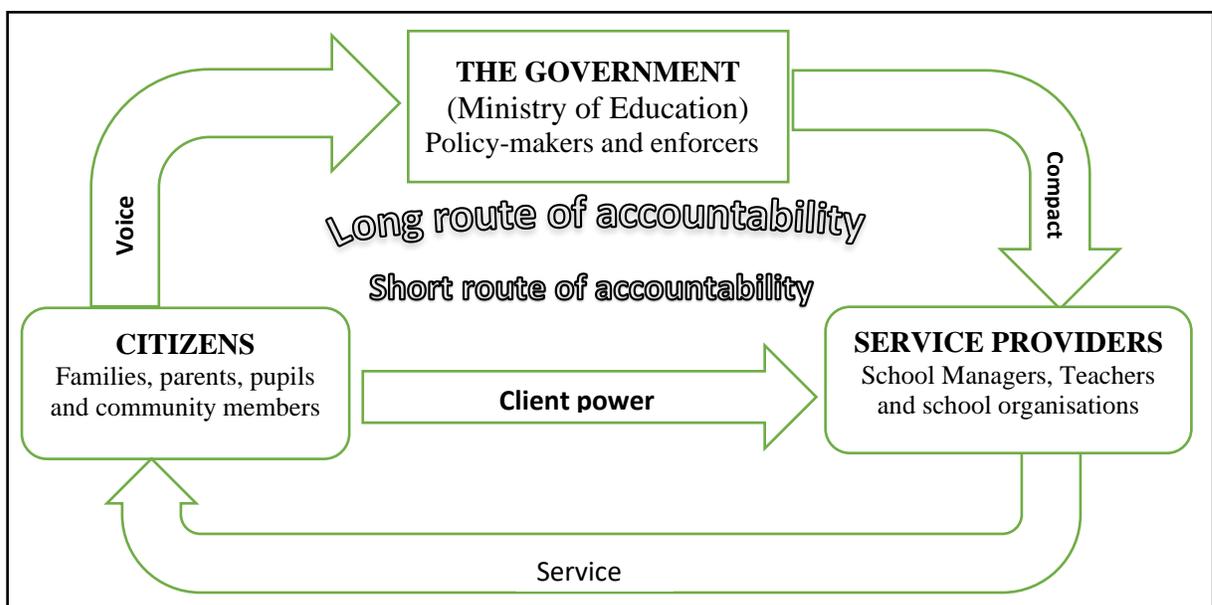
1.11 Accountability Framework

This study is further informed by the World Bank’s 2004 accountability framework, which explains the connection between policymakers, consumers, and service providers. This framework emphasizes the need to ensure the education provider’s direct accountability to the consumer (WB, 2004). It is emphasized that when the government assumes the responsibility of providing education, there must be a well-established accountability relationship between the citizens (consumers), the providers (teachers), and the policymakers. Arguably, when this relationship breaks down, service delivery fails (The World Bank, 2004).

The framework classifies accountability routes into two types, namely the long and the short accountability routes. In the long route of accountability, citizens are expected to influence policymakers by, for example, demanding that the government improve the overall quality of education and students' learning outcomes. In contrast, policymakers are required to monitor and motivate teachers to work towards the desired outcome. The short accountability route refers to the client-provider relationship (The World Bank, 2004). In the context of this study, clients were expected to play two major roles in strengthening the delivery of education services: Demanding improved educational quality and monitoring providers' performance to achieve the desired learning outcomes. However, citizens can play these roles only when they are better informed about the quality of education that is necessary. The World Bank (WB) framework assisted in examining both the long and the short routes to accountability in Zambia in determining how these routes explain students' learning outcomes.

This framework was thought to be relevant in exploring school manager accountability practices in financial and material resource utilisation and by linking them to school performance in selected public secondary schools of the Copperbelt province in Zambia's educational system. Policy documents created by the government of Zambia reiterate the need to strengthen accountability in education service provision (Educating our Future, 1996) and educational accountability in schools as shown in Figure 1.1 below.

Figure 1.1: Educational Accountability in Secondary Schools



Source: World Bank (2004)

Tetlock's theory of educational accountability is discussed, and the World Bank accountability framework shows that teaching and learning can be greatly improved by managerial accountability of financial and material resources. These materials include textbooks, charts, maps, posters, and many others. This study focuses on exploring school manager accountability practices in financial and material resource utilisation and their implications on school performance in selected public secondary schools of the Copperbelt province of Zambia. This required that material resources are available, adequate in supply, of good ratio to the pupils, and used frequently by skilled human resources.

Efficiency in the use of these resources will then translate into improved teaching and learning and higher academic performance. However, there may be other factors that influence performance which may include teachers' commitment, attitude, qualifications, sex, age, experience, or level of education. Others could include the pupil's home environment and parental involvement or adequate supervision. It is very important to understand that the concept of education accountability was conceptualized from different viewpoints.

Accountability is an elastic concept, and it has been difficult to define in precise terms (OECD, 2010). In this sense, it has been variously defined across all disciplines and organisations (West et al., 2011). It has been related to punishment when it is used negatively, and it has been linked to blame or pointing fingers when things go wrong in a certain social setting. Consequently, accountability has been concerned with individuals and groups in public and private sector organisations (Artley, 2001). Therefore, it can be conceptualised around two specific themes (Frink & Klimoski, 2004).

The first is the context which involves people and tasks in each situation and the second is the assessment of their performance against a set of standards and expectations (Artley, 2001). Ideally, it involves different actors in a social context working together towards a particular goal (Frink & Klimoski, 2004). These actors were the people technically known as agents. In this case school managers (OECD, 2010).

Likewise, Posner (2006) pointed out that accountability is a framework for a set of procedures and standards against which the actor's behaviour is compared, evaluated, and assessed, and feedback is given, for an organisation to realise its desired outcomes. It aids government employees to ensure that they use their authority responsibly and prevent anything from going

wrong (OECD, 2010). It enhances transparent reporting as a crucial element of responsive governance (UNESCO, 2005). Without transparency mechanisms, it is difficult to hold actors to account for failures of expected standards (Posner, 2006).

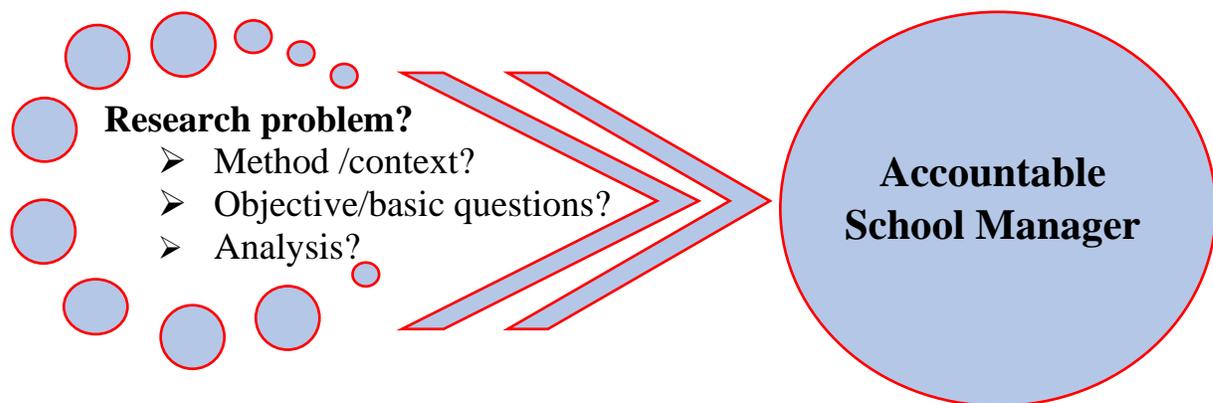
To attain school managers' accountability, we incorporate planning; monitoring; financial resource management, and material resource management by focusing on the tenets of equity, access, quality, and relevance. The quality of every society is largely predicated on the quality of its educational system. Considering the apparent constraints on educational resources, their efficient utilisation for the maximum result need not be overemphasized.

Zambia, like other nations of the world, has an obligation to prepare its citizens for life in a world that is characterized by rapid social, economic, political, and technological changes. The relevant levels of government have been investing substantive resources in setting up educational institutions for this purpose (NOUN, 2010). When school managers are accountable it means that they are ready and willing to be responsible for their actions. This creates trust between school managers and others while establishing their commitment to their roles and the principles they strive to protect.

1.12 Schematic representation of the conceptual framework

The figure below shows the tentative Schematic representation of the conceptual framework and several ideas that can result in a unified conceptual framework that then leads to the unified holistic understanding of the phenomenon under study.

Figure 1.2: Schematic representation of the conceptual framework



Source: Author (2020)

This tentative Schematic conceptual framework moves from a general research problem to a basic idea of data collection techniques; from some understanding of research context and participants and thinking of their relationship to forming a conceptual framework, then to theory development. With the understanding of the strand of quantitative research design, my understanding in this study complies with the emerging design that there cannot be a precise and complete design on which everything is judged at the start, as in the quantitative research approach, exploratory research is conceptualized in this model.

This empirical study refers to broad-ranging, intentional, systematic data collection designed to maximize the discovery of generalizations based on the description and direct understanding of school manager accountability.

To explore a given phenomenon effectively, it must be approached with two special orientations: flexibility in looking for data and open-mindedness about where to find them (Given,2008).

The above figurative concept assumes that though exploratory the study design follows the emerging type of design; the researcher is not empty minded about the school manager's accountability, research problem, method of data collection, context, and objectives.

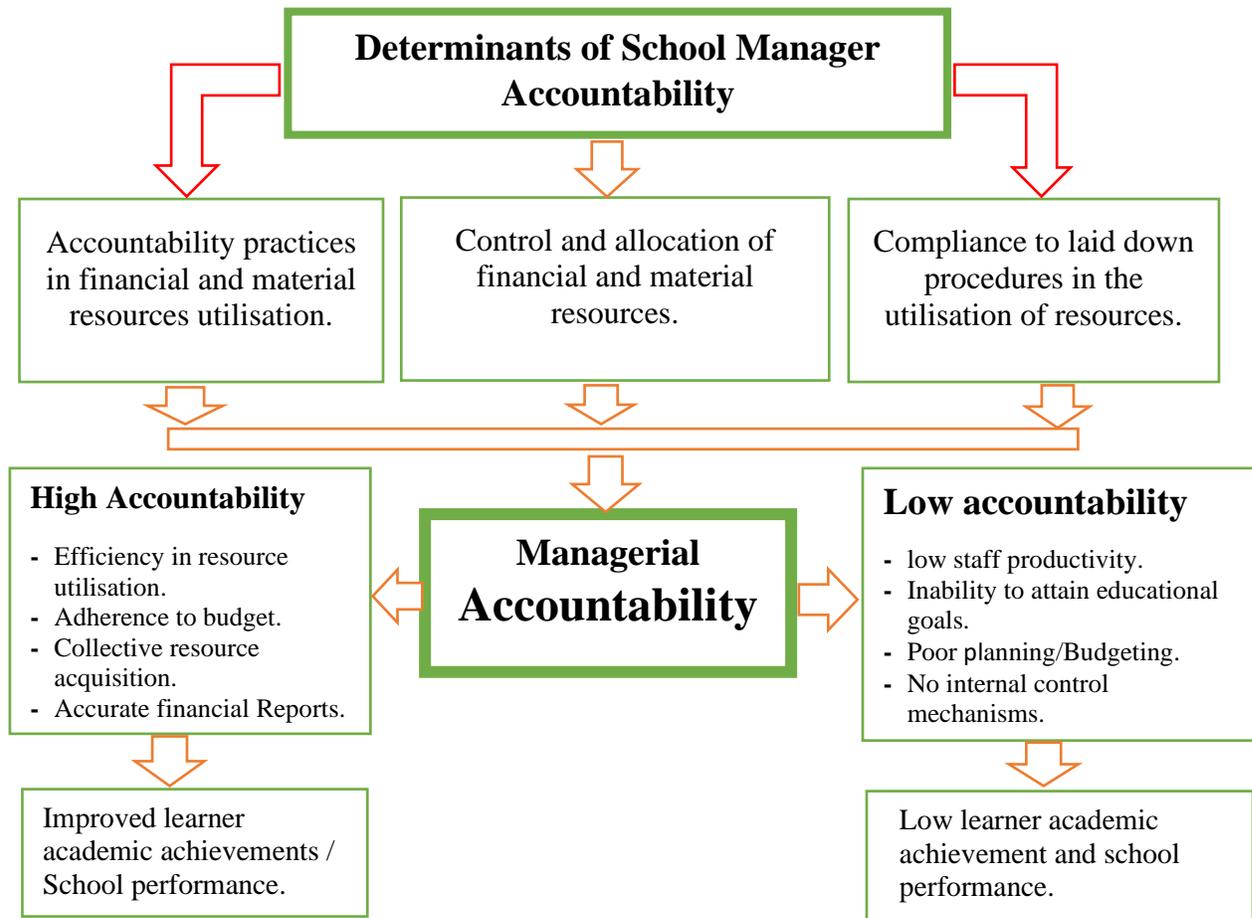
1.13 Conceptual Framework

A conceptual framework is a network, or “a plane,” of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena. The concepts that constitute a conceptual framework support one another, articulate their respective phenomena, and establish a framework’s specific philosophy (Jabareen, 2009).

Further, a conceptual framework of a study is a system of concepts, assumptions, expectations, beliefs, and theories that support and inform the research. The conceptual framework of this study was developed from the reviewed related literature and the theoretical framework.

Robson (2011) observed that a conceptual framework is a key part of the design which explains the interrelationships between variables. In addition to Tetlock’s theory of educational accountability, the emerging perspectives from the data of the current study have ascertained the foundations of this conceptual framework, as reflected in Figure 1.3 below.

Figure 1.3: Conceptual framework



Source: Author (2020)

From the theory discussed, it is evident that managerial accountability plays a key role in school performance. The diagram above has assisted the researcher in developing awareness and understanding of the situation under review. It shows the interaction and interrelationships between accountability variables and the “Effect of managerial accountability on school performance. These variables and other related factors were put in boxes with arrows indicating the interconnections between them (Orodho, 2009).

The interaction and interrelationships between accountability variables on one hand and managerial accountability on the other hand impact school performance. These variables and other related factors were put in boxes with arrows indicating the interconnections between them (Orodho, 2009). This conceptual framework recognizes the contribution of other factors to overall academic performance and establishes the theoretical interaction among these factors thus explaining the effect of financial and material resource accountability on school performance.

1.14 Hypotheses

The following hypotheses were formulated from the conceptual framework to guide the study and were tested at 0.05 level of significance.

1. **H₀**: Accountability practices in the allocation and utilisation of financial and material resources have an influence on school performance.
H₁: Accountability practices in the allocation and utilisation of financial and material resources have no influence on school performance.
2. **H₀** Control and allocation of financial and material resources has a bearing on resource accountability.
H₁ Control and allocation of financial and material resources have no bearing on resource accountability.
3. **H₀** Compliance with laid down procedures in the utilisation of resources has an influence on school performance.
H₁ Compliance with laid down procedures in the utilisation of resources has an influence on school performance.
4. **H₀** High Accountability has an influence on learner academic achievements/ School performance.
H₁ High Accountability has no influence on learner academic achievements/School performance.
5. **H₀** Low accountability leads to Low learner academic achievement and school performance
H₁ Low accountability does not lead to Low learner academic achievement and school performance

1.15 Significance of the Study

The study highlighted some current school manager accountability practices in the utilisation of financial and material resources in secondary schools in the Copperbelt province of Zambia. The study may be of great value to several education stakeholders through some insights into the allocation, control, and utilisation of financial and material resources in schools. This study is likely to contribute to the development of strategies that might advance the promotion of high school performance through high levels of school manager accountability in secondary schools. The outcomes of this study would be made available to the Ministry of Education and help education authorities in Zambia, especially the Government to fashion out policies and programs to improve financial, and material resource management systems in secondary schools across the country.

1.16 Contribution of the Study

This study has added literature on school manager accountability in secondary schools in Zambia and other countries in Sub-Saharan Africa. This study would pave the way to enlightening school managers and those aspiring to become school managers on the importance of accountability in schools.

The study has also added to the body of knowledge by establishing the fact that there is no significant relationship between school manager accountability levels and school performance levels in certain situations. Furthermore, the findings of this study may be used for future planning and formulation of new policies to improve financial and material resource utilisation in secondary schools. The study would also broaden understanding of fundamental theories and their practical contributions to the fields of accountability, policy planning and financial and material resource management in schools and enhance the relationship between school management and education stakeholders. Practically, it would stimulate the participation of stakeholders that would hold school managers accountable when dealing with issues of financial and material resource utilisation and inspire other researchers to conduct similar research projects aiming at improving the performance of secondary education systems through financial and material resource accountability.

1.17 Limitations of the study

As noted earlier, a characteristic of this study was the limited nature of the evidence base. Although the studies identified by the review were all of interest and value, it was not possible to draw firm conclusions about the impact of accountability on school performance as we lacked a body of large-scale, robustly conducted quantitative studies. Difficulties in questionnaire distribution due to long distances between districts in the Copperbelt province were one of the limitations. The study encountered some cases of attitudes and resistance from school managers, Store officers, and Accounts assistants to avail some records or documents needed to ascertain the authenticity of some of the arguments advanced by the researcher regarding varying accountability practices in financial and material resources.

1.18 Delimitations of the Study

The scope of this study was delimited in many ways. First, the study was restricted geographically to the Copperbelt Province and therefore, care was taken in extrapolating the results of the study to other geographic areas. Secondly, data were collected from the school managers, store officers, and accounts assistants in selected public secondary schools in

Copperbelt province while other stakeholders were excluded. Finally, the research only focused on the secondary school level. Further research is needed at the primary school level as well.

1.19 Conclusion.

Accountability is viewed not just as a contractual agreement, but also as a perceptual, attitudinal state (Davis et al. 2007; Wallace et al. 2011). Educational administrators are accountable to the stakeholders in education as well as accountable for achieving the goals of education using available resources and employing globally acceptable best practices in school administration. Accountability in the school system helps in the protection of public property from abuse or over utilisation. Accountability enhances checks and balances in the educational system such that conformities can be appreciated and improved upon while non-conformities can be identified, sanctioned, and corrected appropriately and timely.

Accountability entails being willing or obligated to take responsibility for one's actions. Accepting this responsibility means that you are dedicated to creating a positive impact by acknowledging the importance of accountability and taking ownership of the choices that lead to one's actions. Accountability involves accepting and understanding that one's actions have consequences.

1.20 Projection of the next chapter

The subsequent chapter provides a comprehensive literature review by exploring school manager accountability practices in financial and material resource utilisation and their implications on school performance in selected public secondary schools of the Copperbelt province of Zambia.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Accountability is often seen as being connected to transparency (Anneli Hujala, Andersson, & Wikström, 2014), sometimes even being considered a synonym, and yet these two notions are quite distinct; to confuse them is reductionism. Nevertheless, transparency indicators are often used to measure accountability to reduce its complexity (Anneli Hujala et al., 2014).

2.2 Accountability

The concept of accountability has evolved beyond its bookkeeping origins and has become a rather common concept symbolising good governance in both public and private sectors (Bovens, Schillemans & Goodin, 2014). Accountability in education is a comprehensive and multifaceted concept, ranging from using political processes to assure democratic accountability, introducing market-based reforms to increase accountability to parents and children, or developing peer-based accountability systems to increase the professional accountability of teachers (Hanushek, Machin & Woessmann, 2011). Bovens et al. (2014) perceive accountability as a process that involves interaction in a hierarchical relationship between those who have power and those who have delegated authority and responsibility. Similarly, Komba (2017), Maile (2002), and Spaul (2015) assert that accountability in education refers to the obligation required of those assigned with authority to lead and manage organisations, which in this case denotes schools; to report, explain, and justify the occurrence of educational activities within their institutions. These postulations seem to suggest that accountability embodies three essential elements, which are enforcement, monitoring, and answerability.

Accountability is evaluated against specific goals (Maroy & Voisin, 2017; Perie et al., 2007). Treating accountability as an end in itself suggesting that good governance amounts to more accountability, fails to recognize that accountability can have both beneficial and detrimental outcomes (Bovens, 2006; Gorur, 2017). The use of the term has grown from specific applications, usually in business, to broader and more ambiguous applications in various sectors and government domains. (Bovens et al., 2014).

2.3 The Origins of Accountability

Historically, the term accountability is attached to the notion of “accounting” (Bovens, 2007a). The earliest notions of accountability can be traced back to the distant past. When Hammurabi,

King of Babylon, promulgated his legal code in 2000 BC, he had already understood the necessity for scrutiny of those entrusted with managing the assets of others (Bird, 1973; Gray & Jenkins, 1993). This anecdote suggests that the history of accountability is as old as civilisation itself (Gray & Jenkins, 1993). Semantically, the term accountability derives from dual roots: counting and answering (in the sense of answering *for*). The counting sense goes back to the Domesday Book, completed in 1086.

The first formal record of the notion of accountability thus dates to the reign of William the Conqueror (William I of England) (Bovens, 2007a). The Domesday Book was a census of property and resources in England and was not compiled merely for the collection of taxes: William's purpose in surveying assets and properties was to lay the foundations of royal governance (Bovens, 2007a). The book thus contains the first mention of the term accountability. The term was then used in the meaning of accounting, or rather of "rendering accounts" This practice of surveying assets, as noted by Bovens et al. (2014b), is a foundation of power relationships and the obligations imposed by the most powerful on their vassals. Compiling a list of assets provided a basis that made discrimination and taxation possible. Throughout history, however, the concept of accountability gradually became detached from that of accounting and established its meaning. Freed from a purely financial sense, accountability now conveyed the promise of just and equitable governance (Bovens, 2007a). The second root of the term accountability, the sense of "answering for", goes back to ancient Greece, where leaders were called upon to render accounts publicly to the *polis*. This is the first appearance of the notion of answering for one's actions. It carried a form of sanction since any leader unable to answer for his actions publicly would incur the wrath of the crowd.

The concept of school accountability as we know it dates from the 1980s. The 1975/76 William Tyndale affair, relating to a school of the same name in the London borough of Islington, tested the limits of school autonomy, led to a public inquiry, and is seen as a defining moment in the accountability of public services (Riley, 1996). In the famous Ruskin speech of 1976, James Callaghan, the then prime minister, criticized the 'secret garden' of education and asserted the need to open schools to those with a legitimate interest in education. This triggered a long-running debate about how things change to make schools and teachers more accountable.

Generally, the literature points to 1988 as the key date when accountability became established in the education system, but governors' responsibilities were identified even earlier. The England and Wales Education Act 1980, which made it mandatory for each school in England and Wales

to have a governing body, was driven partly by the determination to promote local accountability. A further Act in 1986 required the governing body to publish an annual report and arrange a meeting for parents whose children attended the school. However, it was the Education Reform Act of 1988 that led to huge system change and set in train the public accountability framework still operating today. The 1988 Act fundamentally altered the power structure of the education system laid down in the 1944 Education Act. It increased the power of the secretary of state, strengthened the role of the central government, limited the functions of what were then local education authorities (LEAs), and gave considerable powers and responsibilities to governing bodies and school managers. The Act's main provisions relating to schools were concerned with:

- ❖ The establishment of a national curriculum and national testing
- ❖ The open enrolment of pupils
- ❖ Local management of schools (LMS)
- ❖ The establishment of grant-maintained schools

These four elements were part of a coherent government package designed to improve the quality of education by reinforcing the accountability and responsiveness of schools. Parallel legislative provisions clarified responsibilities and established an integrated approach to change in schools. The increased power of the secretary of state over a centrally directed system of curriculum and assessment and, indeed, over teachers' conditions of service, made it 'safe' for the government to increase the managerial autonomy of schools. The balance between autonomy and accountability became enshrined in legislation and remains strong in our culture and practice today.

The 1988 Act intensified the competitive pressures already experienced by many schools because of falling roles throughout the 1980s. By delegating resource management from LEAs to governing bodies and, de facto, school managers, schools certainly became more autonomous. However, their autonomy was held in check by a highly developed centralised framework that held schools accountable for performance, subjected them to national prescription in many areas, and made them responsive to, and reliant on, the choice of parents. The accountability system was strengthened further four years later when Ofsted was established and with it a completely new national inspection regime. In this brave new world, all schools were to be inspected regularly and the inspection reports were to be made publicly available. This, together with the publication of performance tables, provided a standardised package of information for parents in their role both as citizens and consumers. By the mid-1990s, the accountability framework in England was established based on:

- ❖ National tests and examination results.
- ❖ Published performance tables.
- ❖ Inspection.

These pillars remain in place to this day. Publishing information on all schools had a profound impact on the national debate around education. It shone a light on poor performance and poor service delivery. It is important to understand that accountability concerning human activities.

2.4 Worldview of Accountability

Although we can easily understand the importance of accountability in human relationships, people with different worldviews frame accountability differently. The person to whom another is accountable must have the proper standing or authority to hold someone accountable. However, accountability is not merely directed “upward” to superiors. Religious people for example may see themselves as accountable to God for how they live. For many, the idea of accountability is about our personal lives being invaded by judgemental. By accountability, we are not talking about coercive tactics, the invasion of privacy, or bringing others under the weight of someone’s manipulative or dominating tactics. Instead, accountability means developing relationships with others that help to promote spiritual reality, honesty, obedience to God, and genuine evaluations of one’s walk and relationship with God and others.

2.4.1 God and Accountability

Religious people of Abrahamic faiths hold a central belief that people are created by God to be accountable to God and accountable to one another. The definition of accountability as expressed in the Bible is from Romans 14:12: “So then each one of us shall give an account of himself to God.” Biblical accountability begins with taking responsibility for one's actions and making a conscious choice to allow God and others to help in accomplishing what is right. (Romans 14:12 & Hebrews 4:13.)

The faithful and productive stewards lived and worked with a sense of accountability. They knew that one day their Lord would return, and they would have to give an account of what they had done with what they were given. The unfaithful steward was unaccountable as he refused to take responsibility for his actions blaming his master for his failures (Matthew 25:15-18). In a nutshell, accountability is seen as understanding and upholding the responsibilities you have been given, or have volunteered to take, so that whatever job or task you have is completed to the best of your ability.

2.5 The Concept of Accountability

Accountability as a concept is defined as “the authority given to a person to operate independently, and the responsibility that the person takes for his activities requires him to report on his actions” (Sergiovanni, 1995). The concept of accountability which refers to administrators’ taking responsibility in the framework of basic rules and standards about the organisation’s activities and outcomes of these activities serves to protect the benefits of all the stakeholders (Samsun, 2003). The two main components of the term “accountability” are authority and responsibility.

The concept of authority refers to the competence and mandate given to the school manager to exercise the powers delegated by certain regulations or administrative orders issued by the Ministry of Education (MOE) in the case of government institutions, and by management (Khan & Iqbal, 2013). Yet, the autonomous school manager’s experience is not necessarily related to a “defined” degree of autonomy that is prescribed by educational law and driven by concepts of new public management. Their “perceived” autonomy is also due to factors that can be located at a rather individual level (Brauckmann & Schwarz, 2014).

The concept of responsibility is defined as “a sense of internal obligation and commitment to produce or prevent designated outcomes or that these outcomes have been produced or prevented” (Lauermann & Karabenick, 2011). It refers to being responsible and providing explanations to a specific authority regarding the activities in question (Julnes, 2006; Mulgan, 2000). Accountability, which contains both concepts, is a process that ensures appropriate conduct according to the organisation’s regulations and indicates that the administrators must answer to higher authorities (Argon, 2015). There was a clear emphasis on recognizing and taking responsibility, but obvious as it may be, ambiguity remains regarding the boundaries of the spheres of authority.

In addition, while the limits of authority and responsibility are located inside the school, accountability involves external factors to whom school managers are required to report and adjust expectations (Milligan, 2015). These working processes can be framed and formalized on an appropriate legislative basis. Primary legislation was a major tool for achieving traction in public education by monitoring systems in formalized ways, closing failing schools, and promoting school managers and teachers based on deliverables (Gibton, 2013). The involvement of external factors indicated that such legislation requires a transformation of the school’s accountability system. In the absence of legislation, it was difficult to determine who has the

authority for processes and performance in school and beyond (Adams & Kirst, 1999). As a result of the absence of legislation and the uncompleted decentralizing processes, the authority was unclear while the responsibility of the school managers was heavy. Thus, despite the transfer of authority to schools, school managers do not yet have the powers that are essential for school managership (Moynihan, 2009; Snow & Williamson, 2015) and this can limit their ability to act independently. The lack of clear definitions challenges school managers, who try to reduce the burden and role ambiguity which is reflected in continuous tension in their daily work (Higham & Earley, 2013; MacBeath, 2008).

The concept of accountability means the obligation to account for the responsibility for the results of the impact on the natural environment. The notion of accountability of leaders to the people is a fundamental thought in contemporary public administration discourse (Rasmussen & Zou, 2014; Schillemans & Busuioc, 2014) and is increasingly being recognised as a cornerstone of effective service delivery (OECD, 2011; Argon, 2015). In voicing similar arguments, Gershberg et al. (2012) conceptualised accountability as one of the key reforms in the education sector. Furthermore, the World Bank (2008) report emphasizes the need for accountability structures.

Figlio and Loeb (2011), as well as the (OECD, 2011), note the prevalence of demands for educational accountability around the world based on students' performance at the end of a learning cycle, compliance with policies and regulations, professionalism, and market indicators (Figlio & Loeb, 2011; Rasmussen & Zou, 2014; Argon, 2015; Helgoy & Homme, 2016). As such, educational reforms, which include school-based accountability, were partly meant to ensure that public resources were used more effectively and productively, in addition to providing information to stakeholders for supervision and accountability (Argon, 2015; Helgoy & Homme, 2016). Argon (2015) argued further that those organisations that do not include accountability in their management systems will display irregularities, uncertainties, and unjust behaviour. Following the same line of argument, Eacott and Norris (2014) assert that the current school-based accountability movement emerged out of a desire to institute accountability for the overarching demand for improved aggregate student performance in the national examinations (Maricle, 2014), among others.

The Government of the Republic of Zambia has been encountering many challenges as it deals with accountability in education because the idea of accountability has not yet been embraced fully either by the assessors or those being assessed. Mechanisms have been formulated to enhance accountability but have not yet been implemented fully in Zambian public secondary

schools. It was possible to summarize the concept of accountability with the question of “who is responsible to whom for what?” The “who”, in this case, is the person who is accountable for what s/he has done, and the “who” is the person having the authority to be accounted for (Adams & Hill, 2006).

2.6 Essentials of Accountability

2.6.1 Enforcement.

Enforcement is mainly concerned with ensuring that the rule of law is observed in schools incessantly. Monitoring involves the execution of power in a transparent manner where all key stakeholders jointly account for their actions. This should not only be a top-down exercise but it must also be done amongst peers to yield positive outcomes, lest it is perceived as ‘policing’.

According to Beckmann (2000), there are three essentials of accountability and one of them is enforcement. Beckman further defines enforcement as an element of accountability that can be linked to the rewarding of good and punishing of unacceptable behaviour. This simply means that, when the auditors exercise their powers in demanding quality service from the school managers, they enforce accountability by rewarding and punishing those found with audit queries and mismanagement of public funds.

The Auditor-General (2020) cautions enforcers of accountability measures that good enforcement that falls within the parameters of the law and policies was duly diligent in supporting good governance. Due diligence implies that doing the right thing is an obligation, not an option. Among other things, the enforcer of accountability ensured that:

- ❖ The rule of law was observed.
- ❖ The education environment was characterized by peace and stability.
- ❖ Stakeholders of whichever religion, ethnic origin, age, sex, language, ideology, race, gender, pregnancy, marital status, social origin, colour, sexual orientation, disability, conscience, belief, or birth are not subjected to unfair discrimination.
- ❖ There was no impermissible curtailment of basic human rights and liberties of individuals.
- ❖ There is the sensitivity of diversity in accountability.

- ❖ Standards of personal behaviour and integrity that guard against corruption and improper behaviour were adopted.
- ❖ Officials were adequately trained to carry out their duties with a minimum mal-administration with sensitivity to how services are best delivered to the public, and there was transparency in the process of accountability to the extent that people understood the reasons why the governing body takes the decisions it does and can debate the issues.

In addition to this, Luthans (1995) pointed out that, the acceptability of enforcement was determined by the adequacy of checks and balances in the exercising of power. He further posits that adherence to due diligence helped minimize conflicts as shown above. It follows that all decisions concerning accountability are transparent. People want to know what happens when a decision is taken, what reasons there are for a decision, what the implications of decisions are what processes were used, and what facts were considered in the decision-making process.

2.6.2 Monitoring.

Monitoring as Davidoff & Lazarus, (1997) put refers to the exercising of power transparently. Monitoring involves who is accountable to whom and about what. The answers to this question reflected the overall management approach in a school. For instance, if the school is democratic and all stakeholders are seen to be important participants in the governance of the school, then all concerned need to account for their involvement in this process. In this case, it was not the sole responsibility of the school manager or the school governing body alone. All were accountable. Hence, accountability was executed and indicated the type of management approach that was being used.

Lello (1993) argued that a top-down management approach would involve a system of accountability that puts the individual employee at the top on the receiving end. A bottom-up management approach would also be like the problem of blaming others. Therefore, monitoring sideways and up-and-down.

All role players must account for their actions to the bodies that represent all these role players. For example, the school manager is accountable to the department, the school governing body, the teachers, parents, and students. By the same token, the school is accountable to these stakeholders.

2.6.3 Answerability.

Answerability, on the other hand, entails gathering facts and collecting evidence for the purposes of reporting back and responding to follow-up discussions. In this instance, the school leadership responds with information on the actions taken to improve the quality of teaching and learning in their schools (Anderson, 2005; Maile, 2002; Usman, 2016). In education, therefore, schools are accountable for their learners' learning to the higher-level authority, which is the district office.

According to Dorn (1998), answerability implies being accountable to and being judged by somebody and having to respond to questions and the opportunity to ask questions in return. Moreover, Beckmann (2000) contends that questions relate to reliable information about decisions (what has been done or will be done is a valid explanation of decisions). It was about finding facts, generating evidence, and subjecting the exercise of power to the rule of law as well as to reason.

Maile (2002) noted that in practical terms, answerability is embodied in reports back and follow-up discussions, and general terms in evaluation. The latter revolves around the question: How well are we doing? To see how well we are doing was an exercise involving proving, improving, and learning. In addition to this, Burke et al. (1990) studied answerability and found that it manifests itself in two types:

- i. Process evaluation: this entails focusing attention on monitoring the delivery of programmes and adjusting where necessary.
- ii. Outcome evaluation: This was linked to the final decision regarding the continuation of the programme.

According to NOUN (2008), Accountability in education is the answerability to one's actions in the educational system. It is the state of being accountable to the stakeholders in education and accountable for the resources used in education. This implies that accountability was a measure of the extent to which all available resources in a productive system were used for greater efficiency and productivity.

In education, Accountability as Adams et al. (1967) put it is concerned with determining which records are to be kept, how such records were maintained in terms of procedures, methodology, and forms to be used, in recording classification and summarization of activities of events analyzing and interpreting the recorded data, preparing and issuing reports and statements which

reflect conditions as of a given time. Furthermore, Okoroma (2007) identified four areas of educational accountability.

- (i) **Accountability for Cash:** -The school manager is required to account for every cash received for the development of education in his school. This requirement was a factor that enabled him to exercise utmost carefulness in the disbursement of public funds.
- (ii) **Accountability for Things:** The physical facilities of the school must be accounted for. The use of such facilities as school buildings, Vehicles, libraries, laboratories, personnel, etc. was adequately accounted for.
- (iii) **Accountability for Actions:** All actions of every member of an organisation must be accounted for by the school manager including his actions.
- (iv) **Accountability for Results:** Every organisation has goals and objectives it has set for accomplishment. The educational administrator must ensure that the expected results are achieved. The quality of results obtained from any educational efforts shows whether the expected goals were attained.

2.7 Internal and External Accountability Mechanisms

2.7.1 Internal Accountability Mechanisms

Internal accountability involves the provision of disclosures that meet the information needs of the internal stakeholders of an organisation, such as board members, PTA, and students. According to Elmore (2004), in schools where internal accountability works well, school managers and teachers are held accountable for student learning in line with personal responsibility and shared expectations, combined with certain consequences. School managers, for example, may require teachers to provide copies of their lessons, to write a daily schedule on the blackboard in their rooms, or to be available for supervisory duty in hallways or playgrounds.

2.7.2 External Accountability Mechanisms

External accountability policies are believed to trigger schools' internal building mechanisms for producing higher quality education services and higher levels of student achievement and have developed many external control points or sources of pressure for raising performance and creating bilateral relations that encompass being called to account and giving intra-school accounts. This situation over the social course of time has formed who will give what results, how they were explained and to whom, and how they can defend the legitimacy of their actions.

These external mechanisms, which some exert stressed on schools with differing content, relate to accountability for politics, law, bureaucracy, performance, market, and profession (Adams & Kirst, 1999; Darling-Hammond, 1989; Darling-Hammond & Ascher, 1991; Heim, 1995; Kuchapski, 2001; Stecher & Kirby, 2004; Wagner, 1989).

2.8 Models of Accountability in Education

Education, as with all social services, is not immune from the ‘age of accountability’ in which the world is currently operating. Smith and Benavot (2019) attribute the emergence and spread of accountability in education globally to five political and social trends. These trends are massification, marketisation, decentralisation, standardisation, and increased documentation of education. These trends reflect the increased importance of education in societies and to the world at large. Most countries adopt a mix of mechanisms for holding schools accountable. These include performance accountability, regulatory accountability, and market accountability (Rosenkvist, 2010).

Accountability systems can be significantly different according to who is expected to provide the account, to whom is the account owed, what is to be accounted for, and what the consequences are of providing an account (Leithwood & Earl, 2000). Several scholars have created typologies of accountability systems in a range of policy fields according to these and other variables. Table 2.1, presents some of the most well-established taxonomies of accountability in education. The table highlights many of the accountability categories as recurrent, particularly the professional, political, and market categories; others were labeled differently, despite having similar meanings (for example, the hierarchical and the bureaucratic, the contractual and the legal, or the market and consumer accountabilities). The most traditional forms of accountability are political and legal. Of all the taxonomies, West et al., (2011) unpacks the accountability modalities further, in part because it places greater emphasis on different forms of participative and public accountability.

Maroy and Voisin’s (2013) taxonomy is the only one in the table that was not guided by the nature of the forum, but to a great extent, by the nature of the obligation. Another reason why their taxonomy is innovative is that it makes explicit what the theory of regulation – or policy ontology – is that serves as the foundation for the different accountability approaches. For example, on the one hand, assuming that educational actors were homo economicus and mainly sensitive to their interests will give rise to an accountability approach grounded in extrinsic incentives. On the other hand, if educational actors tend rather than respond to social norms and

obligations will derive very different approaches to accountability (such as reflective or soft forms of accountability).

Table 2.1. Taxonomies of accountability in education

Leithwood and Earl (2000)	Ranson (2003)	Darling Hammond (2004)	Anderson (2005)	West et al (2011)	Maroy and Voisin (2013)
<ul style="list-style-type: none"> • Professional • Managerial • Decentralisation • Market 	<ul style="list-style-type: none"> • Professional • Consumer • Contract • Performative • Corporate 	<ul style="list-style-type: none"> • Political • Legal • Bureaucratic • Professional • Market 	<ul style="list-style-type: none"> • Legal • Professional • Results-driven 	<ul style="list-style-type: none"> • Professional • Hierarchical • Market • Contractual • Network • Participative 	<ul style="list-style-type: none"> • Strong accountability • Neo-bureaucratic • Reflective • Soft accountability

Source: Author (2021).

2.8.1 Performance accountability model

This Performance accountability, which is a popular mechanism for countries like the United States of America, England, Australia, and most African countries, is product-driven rather than process-driven. Its main objective is to hold schools accountable for the academic performance of their learners based on either national or international standardised assessments (Brill, Grayson, Kuhn & O’Donnell, 2018; Rosenkvist, 2010; Skedsmo & Huber, 2019).

This model changes the focus of interest from education processes and inputs to education results. Performance accountability, derived from expectancy and goal-setting theories, defends the main reason for low school performance as a lack of motivation and willpower.

Concordantly, it aims to solve these by implementing policies such as developing an education program for core subjects with high standards, especially for math, science, and reading skills, by evaluating success through standardized tests, by declaring school performance results to the public, by rewarding or punishing schools based on their performance results, and by implementing teacher training and developmental standards (Spencer, 2006). On the other hand, to achieve higher academic performance for less cost, performance-accountability policies implement teacher-incentive strategies such as teacher performance contracts and paying for performance (Brunns, Filmer, & Patronas, 2011; Fuhrman, 1999; Mintrop, 2002).

2.8.2 Political accountability model

Political accountability means that politicians, legislators, and/or school board members “must regularly stand for election and answer for their decisions” (Darling-Hammond, 2004, p.1050). The assumption here was that if, for example, a government has not fulfilled its promises on education, it will not be re-elected or at least, will lose the votes of many disappointed citizens. In this type of accountability, civil society, Parliament and the media play a key role as watchdogs or forums to which the account is to be given.

2.8.3 Legal accountability model

Legal accountability means that schools and other educational actors (teachers, education management organisations (EMOs), policymakers, etc.) are expected to operate in accordance with legislation, and any citizen can bring to the court complaints about the violation of laws by these educational actors (Darling-Hammond, 2004). What some call contract accountability derives from legal accountability and was particularly important in the context of forms of public-private partnerships (PPPs) such as charter schools or academies. In these cases, the private sector needs to fulfil the conditions established in the PPP contract with the state if it wants this contract to be renovated, or not to be fined for breaching the contract (West et al., 2011). Even though legal and political forms of accountability are still important, there is currently a greater emphasis on administrative forms of accountability, in which individual schools and/or teachers are generally those that provide the account to the government. Nonetheless, administrative accountability is far from being a monolithic category; it includes different models that can vary in terms of hierarchization, managerial style, and the role played by professional bodies, the state, the market, and/or the community.

2.8.4 The Regulatory or bureaucratic accountability model

Regulatory or bureaucratic accountability is mainly concerned with compliance and adherence to relevant policies, laws, and regulations governing education. Schools in this regard are required to complete various reports and forms which must be submitted to the higher-level authority, such as the district office or even the provincial office (Rosenkvist, 2010; Skedsmo & Huber, 2019). Bureaucratic or hierarchical accountability is the most conventional modality of administrative accountability. In this modality, public authorities promulgate rules and procedures on how education is delivered, and school inspectors (and/or other local authorities) try to ensure that schooling takes place according to such rules and procedures (Darling-Hammond, 2004). The first systems of bureaucratic accountability adopted an input approach and, accordingly, focused on discovering whether the necessary resources were in place in schools for the appropriate

delivery of the national curriculum (Falabella & de la Vega, 2016). However, currently, in many places inspection services go beyond the inputs approach and focus on educational processes and educational results as the main domains of school monitoring and improvement. This model is the one that is used in the Zambian education system. At the district level, the school manager reports directly to the District Education Board Secretary (DEBS) who is the topmost education official in the district. The DEBS then reports to the Provincial Education Officer (PEO) who in turn reports to the Permanent Secretary at the Ministry of Education headquarters in Lusaka.

In the District, the DEBS is assisted by Zonal Heads. The zonal heads often act as links for communication between the DEBS and the school managers. The zonal heads also act as means of coordination among schools. At the school level, there is a standard structure by the Ministry of Education. The structure shows some of the positions that must be in all schools although the establishment levels may vary from school to school. For instance, all the schools have a school manager and a deputy. From the deputy, there are Heads of Department, Section Heads, and teachers and these together make up the administration team (Ministry of Education, 2005). However, as discussed below, some features were added to the organisation structure to enhance coordination within the school setting. For instance, the school managers have developed some positions in the administrative structures for administrative and coordination purposes such as procurement officers and store officers.

The flow of resources to schools is also Bureaucratic in Zambia. Funding and procurement of educational resources are done from the ministry headquarters to provincial headquarters in the districts (DEBS) and then to schools. The procurement of textbooks and other learning materials is centralized in Zambia. Funds for the procurement of books and other learning materials are supposed to be channeled through the DEBS then the schools identify the books and materials that they need and then the DEBS procures, or funds are disbursed to schools to procure these materials, but this is not the case.

Materials are received by DEBS already procured and then distributed to schools according to enrolments. Schools do not procure the learning materials directly; they just receive them. This has led to schools complaining about the quality of the materials and content in these textbooks. This is a challenge that needs to be addressed to ensure efficiency and effectiveness in the whole procurement process. Accountability is compromised in this process because schools do not know what was allocated to them Which makes accountability difficult.

2.8.5 Market accountability model

Market accountability, on the other hand, perceives schools as business entities and learners as consumers. This form of accountability focuses on the ability of the school to attract and retain learners, which in turn influences the amount and sustainability of funding the school receives from the government (Rosenkvist, 2010; Skedsmo & Huber, 2019). The school's capacity to fulfill this form of accountability is based on learners' results. Proponents of performance, regulatory, and market as mechanisms of accountability argue that there are critical benefits that can be yielded from their application.

Brill et al. (2018), Figlio and Loeb (2011), and Gill, Lerner, and Moesky (2016) postulate that performance and regulatory accountability provide the state (policymakers) and the general public with valuable information regarding schools' performance in comparison to each other as well as to external performance standards, which they suggest could drive towards improvement in schools' outcomes. Moreover, they argue that such accountability mechanisms allow policymakers to identify gaps and opportunities in students' learning as well as teachers' knowledge and pedagogical skills and present a platform for those with political power and authority to reallocate resources across schools (Hutchinson, Dunford & Treadaway, 2016). However, these mechanisms of accountability are viewed as 'top-down' and have negative connotations attached to them.

Skedsmo and Huber (2019) posit that countries that put more emphasis on performance and regulatory accountability are at a risk of attaining negative repercussions of increased accountability pressures exerted in schools resulting in the narrowing of the curriculum, as teachers only focus on drilling and teaching learners only what is to be assessed. Klenowsk and Wyatt-Smith (2012) and Møller (2009) further argue that the focus on test scores neglects the other critical objective and responsibility of the schooling system in general, which is the preparation and development of a well-rounded learner who can participate both emotionally and socially in a wider and democratic society. Furthermore, performance accountability tends to assume that schools are the same in terms of basic educational tools and resources such as qualified and experienced teachers, high-quality instructional materials, facilities, and general safe school conditions (Elmore, 2004; Klenowsk & Wyatt-Smith, 2012; Møller, 2009). Moreover, such accountability mechanisms are viewed as counterproductive and may subsequently hamper teachers' morale. As a result, thereof, there is a shift in the recent empirical studies (Cranston, 2013; Gill, Lerner & Meosky, 2016; Rosenkvist, 2010; Skedsmo & Huber,

2019) towards advocating what is referred to as professional accountability, which places learners' needs at the centre of education.

2.8.6 The participative or social accountability model

Participative or social accountability emphasizes the importance of participation by parents and the community in the education process (Ranson, 2003). In participative accountability, schools are accountable to families not via the school choice and exit mechanisms, but through voice and dialogue within school governing bodies (West et al., 2007). In some cases, particularly in developing countries, school-governing bodies are given important responsibilities in terms of the management of schools, e.g., deciding on future investments and even on the dismissal and hiring of teachers (Patrinos & Fasih, 2009).

2.8.7 Professional accountability model

Professional accountability is a distinct form of accountability that focuses on giving teachers more support, promotes collaboration and training through observations and assistance by supervisors, and encompasses instructional coaching, with the ultimate goal of giving professional reviews and evaluation (Brill et al., 2018; Gill, Lerner & Meosky, 2016; Rosenkvist, 2010; Skedsmo & Huber, 2019).

Furthermore, this form of accountability implies that teachers acquire and apply the relevant knowledge, values, attitudes, and skills required for effective and improved work practices (Møller, 2009). Such accountability mechanism is more school-led and grants schools greater autonomy to achieve education outcomes, mainly in the attainment of quality learner performance (Brill et al., 2018). In addition, Gill and Lerner (2017) perceive professional accountability as an effective tool for school improvement, as it incorporates giving teachers valuable feedback that will inform and improve their work practices. Professional accountability is thus learner-oriented and knowledge-based. Notwithstanding the undisputable benefits of this recent trend of accountability, there are notable limitations to it that literature has captured.

A large-scale quantitative study carried out in England and Wales in 2013, however, revealed that there was a notable decline in education standards after the abolishment of school league tables, where schools were ranked and quantified based on their performance in standards assessments (Burgess, Wilson & Worth, 2013). Likewise, Klenowsk and Wyatt-Smith (2012) echoed similar sentiments after the decline in the focus on performance accountability and the promotion of

professional accountability in Australian schools. Maile, (2002) cautions that ineffective implementation of professional accountability could be one of the factors that lead to the decline of the culture of teaching and learning due to the autonomy that schools are granted.

2.9 Education Accountability

In education, accountability is a process of constant evaluation of the resources devoted to education such as the human, material, and tangible resources to ensure that they are properly utilized to achieve their stated goals (Durosaro, 2005; Nakpodia & Okiemute, 2011). It is sometimes termed as “value for money” which has direct implications of justifying taxpayers’ money in publicly funded schools (Barzanò, 2009; Cumming, 2012). Different authorities and stakeholders such as teachers, principals, school administrators, superintendents, education ministers, policymakers, and legislators are held responsible for quality educational outcomes. All the models of accountabilities described above have been used to describe education accountability (Gonzalez & Firestone, 2013).

|

Education accountability has become imperative because society expects very much from the school system. All operators in the school system have an obligation to live up to their responsibilities by making the education system very responsive, competitive, and productive. Educational administrators are both accountable to the entire stakeholders in education as well as accountable for achieving the goal of education using available resources. Accountability in education requires an administrator who is proficient in acquiring the necessary actors and factors in the system to achieve the desired goals of education and render an account of such stewardship thus enhancing seamless adjustment into the change agenda of the present administration in Zambia. The absence of adequate teachers, facilities, and other resources makes the realization of educational goals difficult. The situation could never have been better since the various governments whose responsibility is to fund education adequately have not been able to cope with the arduous task.

In addition to the challenges outlined, Usman (2015) further observed that there were problems inherent in the school's administrative procedures, instructional process, and the product of the education system. Schools were no longer making the desired noticeable impact in achieving the set objectives of education and this constitutes a threat to the aspiration of the nation to be among the top twenty (20) economies in the world by the year 2020 i.e., vision 20:2020.

2.9.1 Educational Accountability: A Controversial Strategy for Educational Improvement

The history and analysis of educational accountability as an educational improvement strategy are controversial. It is possible to say that there is no consensus concerning its advisability in this area (Hopkins, 2008; McBeath, 2011). There is tension between different positions, which can be arranged on a continuum that starts with a defense of accountability and ends with a profound critique. The camp defending accountability highlights its effectiveness in the “education systems and actors” (Mourshed et al., 2010) and gives special importance to the standardized test score gains of educational systems that have implemented accountability as a central policy, such as England (Barber, 2004) and some states in the United States of America (Carnoy y Loeb, 2002; Figlio y Loeb, 2011).

This group stated that positive changes were presumably caused by the greater clarity of the roles of the entities that participate in the system and the effect of different incentives for action. The critical camp in this discussion opposes the meaning, processes, and results of accountability, especially when standardized tests are the main information source for evaluating improvement. It has been stated that accountability draws attention away from the teaching-learning process because exaggerated energies were spent on trying to succeed in these measurements (Hargreaves, 2012, Hargreaves y Fink, 2006). In addition, some studies have found negative effects which include bad practices of stakeholders, systemic vices (cheating to achieve high educational outcomes), and problems in developing learning opportunities for students (Darling-Hammond, 2010; Hargreaves, 2012).

From a theoretical and political point of view, criticism of market-based accountability states that its logic affects the nature of educational work, the subjectivity, and the professional identity of the participants involved (Apple, 2003). Ball (2003) emphasizes the concept of performativity, which he defines as an expectation of control concealed under the guise of fostering school and teacher autonomy. Achievement parameters have been defined that show what is valuable and what is not, thus orienting participants’ actions. The intermediate positions have been developed, which aim to harmonize the need for accountability with the role of the school in defining its own goals (Bogotch, Miron, y Biesta, 2007; Espinola y Claro, 2010; Hopkins, 2008, 2010).

These positions promote the articulation between the demand for achievements and objectives in the whole system and the strengthening of professionalism and responsibility-taking in the school. Proposals in this direction have been labeled “positive pressure” (Fullan, 2010) or “intelligent accountability” (Sahlberg, 2010). The differences between the positions described do

not make it possible to establish whether accountability fosters or hinders educational improvement. It is necessary to describe cases in more detail and conduct more specific studies to advance the analysis of this phenomenon.

2.9.2 Educational Accountability and Performance: Perceptions from the Literature

The concept of accountability is defined in various ways. A few of those definitions that were especially pertinent to this study were cited. Accountability is described as a relationship between two parties that meets four conditions (Hill & Bonan, 1991). One party expects the other to perform a service or accomplish a goal, the party performing the activity accepts the legitimacy of the other's expectation, the party performing the activity derives some benefits from the relationship, and the party for whom the activity is performed has some capacity to affect the other's benefits (Hill & Bonan, 1991). Perceiving accountability in this manner implies that educational accountability in Zambia requires a reciprocal relationship between the higher and lower-level educational officials, for example, the ministry responsible for education and educational officials at the national, provincial, district, and school levels expect school managers to run their schools effectively and in an accountable manner. Conversely, schools depend on financial, technical, and logistical support from the ministry. The support rendered could involve the reliable flow of funds, staff, and other teaching and learning resources.

At the school level, parents and community members depend on teachers to educate their children according to government guidelines. However, teachers depend on parents sending their children to school, encouraging them to attend school regularly, supporting their children's education, supervising homework, and promoting learning at home. This relationship depends on the school meeting public expectations and the public supporting the school's efforts to improve its performance (Hill & Bonan, 1991). Consequently, a fine balance is struck. Accountability is further defined as the relationship between a service provider and the agent who has the power to reward, punish, or replace that provider (Newmann, King, & Rigdon, 1997, cited in Ahearn, 2000). Public education accountability refers to the relationship between the government (provider) and the consumers (families), whereby the consumers have the power to reward, punish, or replace the provider of education services (Ahearn, 2000).

Generally, families from poor households have low purchasing power; hence, their only available option is either to quit school or to continue consuming the public secondary school system's educational services, regardless of their quality. In the context of Zambia's system of private education, the concept of accountability entails consumers or buyers of education enrolling in

private schools, where they can question and demand that the owners provide a high-quality education. It is further expected that if buyers are satisfied or unsatisfied, they can either reward or punish the private provider of education. However, for this reaction to become a reality, the end-users of education services need to be informed about school performance and need to understand the standards for judging school success (Ahearn, 2000), or parents withdrawing their child from that school. This is the most common scenario in Zambia. Under the *ceteris paribus* condition, the general assumption is that both private and public secondary school organisations wish to be rewarded rather than punished by the end-users of their services.

School managers are expected to be held accountable, that is, to be responsible, answerable, and ready to assess responsibility and judge or evaluate their performance against certain established standards (Ahearn, 2000). Hence, schools were expected to enhance their performance to the parents' satisfaction. In this regard, school accountability refers to the process of evaluating school performance based on student performance measures. The concept of accountability is further defined as a social relation that allows an actor (provider of services) to feel compelled to explain and justify his or her conduct to consumers (Bovens, 2005). Therefore, the concept implies having a system that makes the service provider answerable to the service users.

2.10 Accountability and Education Policy

Educational policy is a highly diverse set of activities or decisions, which were meant to guide specified educational programmes or activities. According to Eya (2002), educational policy is a course setting involving the decision of the widest ramifications and longest time perspectives in the life of an educational organisation. Osuji (2002) said educational policies are essential guidelines, legislation, or criteria that are essential to ensure the provision of the required educational services and as a basis for quality control. Marfo (2004) defined educational policies as the established guidelines, directives, acts, or laws that support the effective implementation of education programmes. For this paper, educational policy is defined functionally to mean an explicit or implicit single decision or group of decisions that may set out directives for guiding future decisions, initiating actions, or guiding the implementation of educational programmes with a focus on accountability.

The Zambian Government recognizes the basic right of every Zambian to good quality education. Hence, emphasis in this *National Policy* has been placed on such key factors of educational provision as access, equity, and quality maintenance at all delivery points in the system. Three major principles inform the Government's important role in education:

1. The government is the custodian of the human rights of all individuals, including their right to education. Its concern, therefore, was with how well national education policy and practice promote equality, equity, efficiency, partnership, pluralism, transparency, and accountability.
2. the demands of national development require that the Government pays attention to the role education plays in human capital formation, particularly in developing the types of knowledge, skills, values, and competencies that are necessary for economic development and social welfare.
3. democratization of education, with its demands for partnership in educational provision, requires that the Government creates an enabling environment, and establishes rules and regulations, that protect the right of various educational agencies to full and fair participation in educational development.

2.10.1 Accountability-Driven Policy Implementation

Accountability-driven policy implementation is the process of being accountable or responsible for educational policy outcomes. Policy implementation refers to the execution of established policies. Egonwan (1991) defined it as the process of converting finance, materials, technical, and human inputs into outputs as required by policy documents. Flanagan (2001) described policy implementation as the carrying out of programmes and activities to achieve desired levels of attainment preferably expressed in terms of outcomes of instruction. It is the stage when policy statements are translated into action to achieve desired objectives (Oriafo, 2006).

Generally, policy implementation is the most crucial step in the policymaking process because it is not enough to set out policies. Efforts must be made to translate the stated policies into practice. This informed Babalola (1993) to note that no matter how good a policy is, it is likely to be ineffective if it is not properly implemented. It cannot be assumed that once a decision is made, it is carried out automatically. Policies must be made happen through the adoption of effective strategies.

Accountability-driven policy Implementation means providing relevant resources and timely information on the educational policy implementation process and accepting responsibility for educational outcomes (Akpan, 2007). Heim (2007) noted that “Accountability is multi-faceted: it involves responsibility, authority, evaluation, and control. It is the responsibility that goes with the authority to do something. The responsibility is to use authority justifiably and credibly.”

Accountability-driven policy implementation is described as stewardship of resources such as funds, materials, information, discipline, time, teacher quantity and quality, student learning, and positive working relationships with parents and communities aimed at stimulating higher levels of student performance.

2.10.2 Accountability as a School Improvement Policy

In the body of literature, accountability acquires its diverse meanings under different contexts because integrity has not been related to it (Jordan, 2011; Koppell, 2011; Schillemans & Bovens, 2011). In an institutional context, it means the roles and rules for ensuring the proper use of authority, and its meaning in the organisational context has the formation of formal or informal mechanisms for dealing with uncertainties and anticipations (Bovens, 2007; Dubnick, 2002; Jordan, 2011, Koppell, 2011; Kuchapski, 2001; Leithwood & Earl, 2000; Møller, 2009; Schillemans & Bovens, 2011; Wagner, 1989). It also has a system of values in terms of the outcomes it produces, as well as being the social mechanism that produces these values (Aucoin & Jarvis, 2005; Bovens, 2007, 2010; Day & Klein, 1987; Goodin, 2003; Lerner & Tetlock, 1999; McCandless, 2001; Mulgan, 2003; Philp, 2009; Romzek & Dubnick, 1998; Scott, 2000). Leithwood and Earl (2000) define accountability as the mechanism implemented by senior administrators to achieve a school's goals.

Wagner (1989) and Adams & Kirst (1999) view it as a bilateral relationship between the school manager and agent to realize the teaching objectives and establish effective teaching processes. Students' academic achievement and well-being constitute the main issues of accountability, as well as the factors that affect schools' effectiveness, education expenditures, teacher knowledge related to the field and pedagogy, ethical behaviors, and teacher/school performances (Leithwood & Earl, 2000). After the 1990s accountability in education has been seen on one hand as a way of keeping schools under control by creating pressure on schools through rewards and penalties (Elmore & Fuhrman, 2001; Mazzeo, 2001; Reeves, 2006) and on the other hand as an externally created internal mechanism that leads to the cultivation of a school's capacity for improvement (Fuhrman & Elmore, 2004).

In this context, external accountability triggers an impact on a school's internal accountability through external support and pressure, which later increases the school's motivation and capacity for student achievement (Darling-Hammond, 1994, Hill & Lake, 2002; Hoy & Miskel, 2010). Schools were under political, legal, bureaucratic, professional, and market-focused external

pressures and expectations (Darling Hammond, 1989). Different models have been devised as social mechanisms based on the accountability relationship constructed between schools and the surrounding loci of power (Carnoy, Elmore, & Siskin, 2003; Elmore, 2003). According to the Rand Study Report (Stecher & Kirby, 2004), accountability has four basic models: market, performance, professional, and bureaucratic.

Zambia's education sector is constantly changing. However, it is exactly two decades since the government developed the current education policy in 1996. Along the way, the government has made several major policy decisions including the declaration of free primary education in 2002, the legal recognition of community schools in 2011, the introduction of early childhood education (ECE) in 2014, and the reversion to the primary and secondary school structure in 2011. The latter policy decision is the result of criticism of the performance of the basic education system that was introduced in 1983. At that time, the government sought to expand access to basic education to enable more Zambian children to undergo skills training that would lead to employment after nine years of education (grades 1-9). Even as the government planned to gradually upgrade primary schools into basic schools, the investments required outstripped the resource envelope.

2.10.3 Accountability: A key to performance measurement

Accountability is a critical tool for measuring performance in both the private and public sectors. It has been and remains central to discussions of problems related to both the public and private (corporate) sectors. The private sector seems to be using it effectively. However, the public sector is struggling to achieve high accountability levels. According to Ammons (1995), "The public sector has come a long way in measuring performance and 'managing for results, but there is still much to do". Richard Batley (2006) asserts that "Lack of accountability by several organisations resulting from greed and a desire for money, power, and control have led to rising poverty levels, especially in Africa".

According to Smith and Tevera (1997), "The impacts of lack of accountability have included a reduction in investor confidence in the country, a fall in donor funding for projects, and increases in cost for donor funding." All these lead to poor economic performance including high prices, especially food, expanded levels of unemployment, and underemployment. Lack of accountability is a problem not just now but also in the past. For instance, before the privatisation policy, many state-owned enterprises were very unaccountable to the government (which was the major stakeholder). Consequently, they began showing poor results and the government had to

sell them. As a result of poor levels of accountability in the then Zambian-owned companies, there was privatisation. This left many companies under the ownership of foreigners- a situation that has left the country in economic bondage. Despite the clear evidence of the bad effects of lack of accountability, there is a gross misconception of what accountability is. Many people view accountability as a technical term that relates to the process of account preparation and financial reporting. It is therefore not a popular topic in the public domain-a situation which could lead to a further reduction in the accountability levels.

2.10.4 Accountability measures

Accountability measures may involve wide-ranging targets encompassing many aspects related to school and education governance and quality. These can include, for example, financial management, pupil well-being, behaviour, and safety, as well as gauging standards of pupil attainment or progress against academic curricula. In this review, our interest lies in two domains that were frequently used in accountability measures: (1) pupil assessment and (2) school evaluation (including school inspection). Many countries and jurisdictions use students' test results from their national statutory assessment programmes as accountability measures. The challenges of doing this have been well documented. Over a decade ago, concerns were raised in England that using national tests for a range of purposes including accountability may not be entirely satisfactory:

The House of Commons Select Committee concluded that using national test results for accountability “has resulted in some schools emphasizing the maximization of test results at the expense of a more rounded education for their pupils” (Stobart, 2009). Concerns notwithstanding, it is evident that gathering student performance data and making judgements about school effectiveness based upon it have long been central to many school accountability systems. In Levin's (1974) framework for accountability, the performance reporting process is one of four accountability concepts and has been described as ‘about reporting the performance of schools, usually based upon examination and other key student results, under the assumption that the information on such results enables stakeholders to appraise school effectiveness (Ng, 2010).

2.11 Importance of accountability in education

Education is a critical element of development around the world. It solidifies the foundation of advancing literacy, knowledge, skills, and technology. Schools are established to accomplish specific objectives. Within their systems, accountability is one of the important mechanisms that are necessary for achieving these goals.

Accountability in the education system is typically associated with the management of resources that are required to attain quality services and define the goals of acquiring education. Incorporating accountability in school management processes is useful for regulating discipline and enhancing service delivery to boost the system's efficiency. When valuable resources such as teaching staff and amenities are not available, accomplishing educational goals is hard.

It is therefore imperative for these resources to be put in place and managed responsibly as education is an important tool for achieving financial prosperity and social awareness. Since society has high expectations of the education system, the need for accountability is more crucial than ever before. Teachers, for example, have an individual responsibility for the quality of their services based on conditions such as proper support and training, access to information, and resources required to perform their roles. The importance of accountability means:

1. Ensuring prudent utilisation of scarce financial and material resources.
2. Improvements in learner and teacher performance.
3. build trust and increase team members' skills and confidence.
4. solidifying the foundation of advancing literacy, knowledge, skills, and technology.
5. enhancement of service delivery to boost the system's efficiency.

2.12 Accountability in Educational Institutions

Accountability in educational institutions means giving information or making explanations to the internal or external authority about the performance or it means the necessity to legitimize the decisions or implementations. The responsibilities of educational organisations for the goal-oriented practices and resources used while doing the practices also emphasizes accountability (Cendon, 2000, p.25). The most important outcome of the educational organisations for which they have the responsibility of being accountable is the quality of educated individuals. The achievement or failure of these individuals and their role and behaviors in society determine the success or effectiveness of educational organisations and schools were expected to be accountable for these outcomes. Accountability in education tries to determine to what extent educational organisations reach the prescribed aims and increase the quality and success of students (Koçak, Turan & Aydoğdu, 2012). There are three kinds of accountability in educational organisations. These are legal accountability which refers to abiding by the legislative regulations, professional accountability which refers to following professional norms, and finally product-oriented accountability. Educators generally deal with three types of accountability systems simultaneously (Anderson, 2005).

The first type of accountability acquired by inspection and supervision is about whether the school is functioning properly according to the legislation made by the Ministry of Education. It is possible to evaluate this type of accountability as legal accountability. Schools being accountable to top management and using inspection mechanisms in this process is also called administrative accountability (Samsun, 2003).

The second dimension of accountability at school is professional accountability. Professional accountability emphasizes the decisions and implementations made within the professional standards and principles (Cendon, 2000). It also refers to the expectation of educational organisations that educators behave under the norms of the profession. Professional accountability requires educators and administrators to be accountable for commitment to professional standards and principles, and accountable to their peers (Anderson, 2005). The efforts of the Ministry of National Education to define the professional competence of the teachers in the Turkish Education System and various norms shaped by the unions were considered as some of the practices that were applied to establish professional accountability.

Another dimension of accountability in educational organisations is product-oriented accountability. This dimension focuses on the results obtained at the end of the educational process such as student learning, their success, and their progress. Product-oriented accountability raises the level of political impact on educational organisations. For example, the “No Child Left Behind” practice adopted in the United States, where accountability mechanisms were more advanced in education, can be accepted as one of the product-oriented accountability systems. This practice focuses on the success and progress of each student. A product-oriented accountability system signifies that educational organisation are accountable for student learning and student success to the public (Anderson, 2005). This dimension which is called product-oriented accountability in educational organisations can be also called democratic accountability.

Democratic accountability represents that performance indicators and outcomes of public institutions and organisations can be controlled directly by the citizens. Moreover, democratic accountability signifies the responsibilities of public institutions and organisations within the scope of the “new public administration approach” in terms of giving information about the objectives, practices, and obtained results to the citizens, so it emphasizes that the public institutions and organisations were proactive while sharing information with the citizens (Cendon, 2000).

It is possible to state that the practices of democratic accountability in schools require important stakeholders such as parents and others in the school's environment to participate in the school administration. With the practices of democratic accountability, parents get information about their children's learning, success, progress, the usage of school resources, etc., and participate in the decision-making process about the necessary improvements in the school.

The scope of accountability in educational organisations also consists of decisions of the teachers and school administrators to achieve predetermined objectives, their practices to reach these predetermined objectives, and other instruments such as equipment, methods, and techniques to provide and sustain student success (Kalman & Gedikoğlu, 2014). It can be said that school administrators were responsible for defining objectives, developing success standards, and cooperating with teachers, parents, and other stakeholders to reach predetermined goals. School administrators were also responsible for communicating openly and constantly with internal and external stakeholders in the process of determining vision, mission, and strategy by discussing such issues as to what extent the objectives were achieved, what kind of problems were faced, and what kind of precautions were taken to solve the problems.

The importance of accountability in educational organisations can be specified clearly by considering the effect of the "new public administration approach" on the educational administration and educational organisations, the share of the educational system in the public arena, and educational organisations unique characteristics. The fact that schools with open system characteristics have intensive interaction with their environment, that all the social systems and various pressure groups have political, ideological, religious, economic, cultural, etc. expectations from schools, Besides, the function of raising next generations and the concept of "children" give schools many roles and responsibilities.

These roles, responsibilities, and expectations require schools to be accountable to several persons and institutions in terms of inputs, processes, and outcomes of the school. Previous studies showed that school administrators and teachers do not internalize and comprehend the concept of accountability precisely, which is a part of the "new public administration approach". Accountability is perceived as being accountable to superiors and tends to stay within the boundaries of administrative and political accountability (Cendon, 2000). Several reasons have pointed out the importance of accountability in educational organisations and the necessity to improve it, which were the centralised structure of the Turkish Education System (Özdemir, 2010), conflict with the new public administrative approach, strong political impact

on educational decisions (Özdemir, 2013), and students' failure, especially in international exams (EİR, 2014).

2.13 Concept of School Administration

The concept of school administration is a widespread topic of concern and has been conceptualized from diverse perspectives. According to NOUN (2006), school administration is a social process concerned with identifying, maintaining, stimulating, controlling, and unifying, formally and informally organised human and material energies within an interpreted system while Okendu (2012) in his view defines School administration as a concept involving all the processes through which resources were acquired in educational institutions to accomplish the goals of education. It is a process of acquiring school resources for the achievement of desirable educational goals. The school administration is an activity process that requires expertise and training in educational principles and practices to ensure proper management of schools' general activities for achieving a result in education.

Eresimadu (1996) holds that School administration is the implementation and facilitation of the programmes and management of the school resources for the achievement of school objectives. The school administration is the branch of pedagogy that studies the means and methods of Administering schools, reveals the distinctive feature of the system of school management, and analyzes the specific problems involved in organising such a system. Summarily, Ojo (1999) posits that school administration involves managing and administering the curriculum and teaching, pastoral care, discipline, assessment, evaluation and examination, resource allocation, costing and planning, staff appraisal, relationship with the community, use of the practice necessary for the surviving the policies of the organisation such as decision making, negotiation, bargaining, communication, conflict handling running a meeting and so on.

The main task of the school managers is to interpret policy, execute curriculum programmes, see to students' welfare, provision and maintenance of equipment and facilities, induct and retraining of staff, and maintain an effective school-community relationship (Musaaazi,1982). The school administration is especially concerned with students, teachers, rules and regulations, and policies governing the school system. Overall, the school administrator oversees the effectiveness of the day-to-day activities of the school.

This implies that for effectiveness, school administrators must be trained on the principles and practice of education to have an in-depth knowledge of the basic classroom management and

instructional methods which always form the foundation for students' excellent academic performance and achievement. In addition, a school administrator desires to be trained in educational management concepts that provide administrative skills that model behaviors and motivation in achieving academic goals and qualitative service delivery. The School Administrator has the responsibility of ensuring that the established procedures and structures help the school achieve its objectives. The image of a modern school administrator is characterized by certain important leadership qualities. The following personal qualities were generally considered desirable qualifications of an effective school administrator, professional competency, self-confidence, sociability, moral integrity, humility, modesty, and sound health among others.

2.13.1 Principles of School Administration

Noun (2004) affirmed that School administration was guided by certain principles, some of which are stated below:

1. School administration must strive to create a community of learners who are physically and mentally healthy, efficient, and responsive and whose behaviours are acceptable to society.
2. The school must be administered in such a way that both teaching and non-teaching staff function as a team. Everyone in the school was assisted to develop his or her talent and contribute maximally to the progress of the school.
3. A good school administration demands that both staff and learners have a large part to play in decisions that determines school rules, regulations, and programmes. Administration through staff meetings, students' representative clubs' committees, and organisations involve everybody in the running of the school, thus, proper delegation of authority and responsibility must prevail in school administration.
4. School administration procedures and decisions must be consistent with the underlying philosophy of the school. These decisions aim at achieving the set objectives of the school all the time.
5. School administration encourages and provides for the professional growth of teachers through planned educational seminars, conferences, and in-service education.

6. School managers and their staff must always keep the Ministry of Education, school boards, and the public fully informed of the policies, programmes, failures, and successes of the school.

2.13.2 School management accountability

School management refers to the administration of the education system at the school level in which a group combines human and material resources to supervise, plan, strategize, and implement structures to execute an education system. Education is the equipping of knowledge, skills, values, beliefs, habits, and attitudes with learning experiences. The education system is an ecosystem of professionals in educational institutions, such as government ministries, unions, statutory boards, agencies, and schools. The education system consists of political heads, school managers, teaching staff, non-teaching staff, administrative personnel, and other educational professionals working together to enrich and enhance. At all levels of the educational ecosystem, management is required; management involves the planning, organising, implementation, review, evaluation, and integration of an institution.

Potgieter, Visser, Van der Bank, Mothata, and Squelch (1997) regard school management as an act of determining policies and rules by which a school is to be organised and controlled. It includes ensuring that such rules and policies were carried out effectively in terms of the law and the budget of the school. School management accountability is the focus on the effectiveness of the school based on internal and external defined standards. School management accountability cannot be achieved without first instituting clear goals and standards (Ladd, 1996).

According to Ladd (1996) and other researchers (Abramis, 1994; Biddle, 1986; Brown, 1991; Meyer, 1994; Robzek and Dubnick, 1987), there were several issues and concerns of school management accountability that are currently at the fore for school managers. If the purposes, intentions, roles, and expectations were clearly understood from the outset the chances for successful accountability systems were going to be enhanced. In school management accountability the school managers work with SEB. One of the main expressions of the decentralization process is the transition to SEB, dictated by the education system's policy, to allow school managers and secondary schools to act as independent units since they were considered to have close-up knowledge of the school's interests and needs. Thus, SEBs "expanded the school manager's space by transferring the power to make decisions and perform actions in a wide array of policies" (Lindberg & Vanyushyn, 2013).

This has made accountability mechanisms very weak in secondary schools because, in some instances, the SEB is not even consulted when making certain decisions by school managers. The SEBs have been in place for more than three decades, and yet there is a diversity of approaches and policies in reform's adoption and implementation in different countries (Lindberg & Vanyushyn, 2013; Moradi et al., 2016).

The differences between countries regarding the implementation of the main idea were discernible in several aspects: the degree (Gibton, 2017) and emphases of the decentralization process (Cheng & Mok, 2007); the amount and spheres of the given autonomy and authority—ranging from full to partial (Gertler et al., 2007); the existence of legislation process (Gibton, 2011); and cooperation with and acceptance by the government and the local authorities (Moradi et al., 2016). Although the differences between the countries shaped different forms of the SEB model, accountability is considered a fundamental characteristic for the evaluation of school procedures (Carbonaro & Covay, 2010), particularly at different levels of SEB. The decentralized role design of school managers in SEBs increased the complexity and demands required of them (Caldwell, 2008). Thus, “school managers implement government reforms while being accountable for the effectiveness of these in terms of school improvement and student achievement” (Anderson & Turnbull, 2016).

2.13.3 Managerial Accountability and Leadership Practices in Zambia

The changes that were affecting public education imply the need to incorporate into school manager's leadership practices two opposing forces: on the one hand, the accountability systems, which require responsibility for centrally managed achievement testing, compliance with standard procedures of self-evaluation, planning teaching improvement, and reporting of the results; and on the other hand, the expectations that come from within the school, namely those of teachers, students, families, and other stakeholders.

This presents the challenge of coproducing authentic learning (problem-solving, soft skills, civic knowledge, and citizenship) that is not easily measurable and therefore difficult to bring to light, rationalize, systematize, and report. School managers react differently to the demands of centralized policy-making initiatives. Some see them as opportunities for growth and only formally adopt them, whereas others entrench themselves into practices aimed at focusing on the immediate, being conservative, minimizing risk-taking, and setting less ambitious goals that can take their schools forward.

Managerial accountability can end up “colonizing” the organisations (and those who lead them), with the consequence that time and attention are devoted to what is being measured or observed by the central administrative systems. The “colonized” leaders develop or bend their managerial practices primarily in response to the expectations of accountability systems. On the opposite side, accountability systems can produce the effect of “decoupling”: the actual activities are separated from the rituals of accountability requested by the central or local government. In this case, school managers conform only formally to the demands of accountability systems. Other school leaders can capture opportunities from an accountability system, integrating it into a comprehensive management approach that balances opposing requests and organisational principles into a “systemic” model.

Thus, the accountability practices in the field of education introduced in Italy can leave both a positive and negative impact on the way school managers lead their organisations. Studying the impact that the introduction of such policies can have on individuals because of the way leaders execute such directives is deemed important as it sheds light on the link between policy and practice and helps us gain deeper insights into the so-called theory and practice divide.

The move toward greater forms of accountability presents an ideal opportunity for policymakers and educational leaders working at different levels to appreciate the importance of systemic leadership and engage in a discourse that enlightens its value to school improvement initiatives. Rather than focusing on the self, on merely following directives and working independently, the school manager who can understand how things and people are connected and can come together to transform their schools can make a difference in school development and school improvement. Bringing policymakers and implementers together can help in understanding the realities faced by educators at the school level, the former is often oblivious to the challenges educators face on a day-to-day basis.

Accountability in education as Demba (2013) puts it is also important because it is concerned with keeping records of school activities and using such records to assess or appraise institutional performance in relation to the achievement of predetermined objectives. This is buttressed by Okoroma (2007) who argued that accountability in education has elicited much attention because of the following reasons: (i) The school system, which facilitates the objectives of education, is a creation of the society that must maintain checks and balances. (ii) Education is generally

funded by society through taxes, which must necessarily exercise some control in all facets of the educational process.

Tawari (1995) argued that accountability in the school system helps in the protection of public property from abuse through under or over utilisation. It enhances checks and balances in the educational system such that conformities can be appreciated and improved upon while non-conformities can be identified, sanctioned, and corrected appropriately and timely. It has been noted that accountability in the school system helps to protect public funds from misuse as well as fostering a committed pursuit of educational goals by administrators.

Noun (2008) also posits that educational accountability enhances teaching and learning in the school system. It forestalls the misuse of public funds and facilities. Accountability in the school system also enhances the realization of institutional objectives. Accountability skills help to strengthen the school system with the ability to provide a meaningful account or report to acknowledge that educational objectives identified and intended to be achieved with given resources have been achieved. It encourages keeping proper records or accounts of all incomes received and all expenditures made to the satisfaction of the public that supports education.

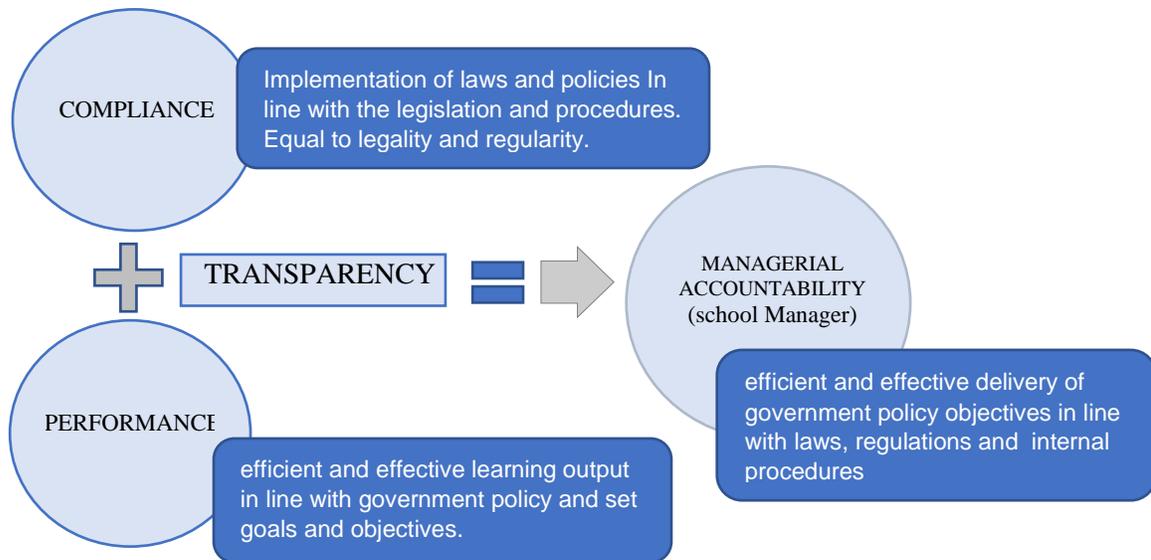
2.14 The Importance of managerial accountability on school performance

Managerial accountability refers to the answerability of managers for the work and results of their organisation. It implies responsibility for all aspects of management such as planning, reporting, allocation, monitoring, and control. Managerial accountability means both conformities to rules and procedures (compliance) and a clear focus on results (performance) (Peters, 2014).

Managerial accountability assumes correlation and consistency between responsibility, authority (the right to make decisions), and a degree of autonomy throughout all levels within the public entity Bar (Cendón, 2000). No responsibility is accepted without authority, as responsibility without adequate authority leads to dissatisfaction among managers and employees. On the other hand, authority without responsibility may lead to misuse of authority, and responsibility goes hand in hand with accountability.

In practice, there is always a balancing act to decide how much authority and autonomy are appropriate. (Christie & Natasha, 2017). Figure 2.1. below illustrate the Accountability responsibilities of managers.

Figure 2.1 School Managers Accountability Framework



Source: Author (2021)

2.15 Acquisition and Utilisation of Resources

The terms acquisition and utilisation have been defined by different people Hornby (2000) defined the word 'acquire' first as: "to work together in order to achieve a particular aim" and secondly "to find and start to use something that is needed for a particular purpose." (p. 754). The acquisition can be viewed as the coming together of people to work as a team to achieve a particular aim. It can also be seen as finding something and bringing it together and starting to use it for a particular identified purpose.

Dike (1987) defined utilisation as being able to employ appropriate instructional material(s) expertly and at the right time to attain instructional objectives (p. 26). From all the definitions above, one can rightly define the acquisition and utilisation of resources as the bringing of human beings and materials together to use them in achieving instructional objectives.

2.15.1 Non-human Resources

Non-human resources are made of physical resources and financial resources.

i. Physical Resources

Physical resources are those materials resources that exist in a human environment. Onyejemezi (1991) viewed physical resources as material things such as buildings, items of equipment, software, raw materials, or natural resources that the organisation controls. In some cases, physical resources exist before the organisation and are then brought under the control of the

organisation. In education, physical resources are buildings, spaces, real objects, pictures, diagrams, models, mock-ups, audio recordings, and community resources. All these resources are needed for the effective implementation of the primary education curriculum.

ii. Financial Resources

Financial resources refer to money. For any organisation to achieve its objectives, money allotted for its implementation must be well utilised. This is very important because as Onyeachu (2006) observed no organisation functions effectively without funds. This means that primary education requires funds for the provision and utilisation of resources.

2.15.2 Importance of resource acquisition and Utilisation

Whether resources are financial or material they need to be acquired and utilised for the effective achievement of organisation goals. Onyejemezi emphatically remarked that resources enhance the achievement of an organisation or institutional objectives and as such, leaders in the organisation must make some decisions about how to meaningfully use the resources available to them. Supporting Onyejemezi (1991), Maduewesi (2006), and Abdulkareem (2001), noted that, a nation's growth and development are determined by its human resources (human capital). Non-human resources such as physical materials and finance are acquired by the available human resources to accomplish the set goals. Resources are indispensable for teaching.

Appreciating this, Ughamadu (1992) asserted that, media are indispensable in the teaching-learning process if there is to be an effective and efficient process. Abdulkareem (2001) further recognized the fact, that people set objectives, determine the resources for use, marshal the resources appropriately, and coordinate the activities of an organisation to achieve the goals. These observations show that if financial and material resources are not well acquired and utilised, organisational goals cannot be achieved.

Dike (1987) described instructional materials as alternative channels of communication that a classroom teacher can use to make information vivid to the learners. Dike's description shows that teachers make appropriate use of information more clearly and meaningfully to the learners. This is because instructional materials can serve as alternative channels of communication if they are acquired and utilised for effective teaching and learning in the classroom. But if on the other hand, resources were not acquired they cannot answer or act as an alternative channel of communication. Therefore, it is necessary to have human resources that can utilise these material resources for effective instruction in the classroom especially at the secondary school level.

2.16 Financial Accountability in School

Management of school finances is an integral part of effective school management. According to Naidu et al. (2008), school financial management is an integral aspect of effective school management and occupies, in terms of status and influence, a position within the management structure equivalent to that of curriculum management.

Clarke (2007) described school financial management as the performance of management actions (regulatory tasks) connected with the financial aspects of schools, with the main aim of achieving effective education, carried out by a person in a position of authority. Financial management is a process with several activities: identification, measurement, accumulation, analysis, preparation, interpretation, and communication of information (both financial and operating). In this study, management of school finances refers to managing state funding, school fees, and money raised during fund-raising activities in all selected schools. From a management point of view, educational funds were planned, organised, and controlled prudently.

Badenhorst et al. (1995) point out that school funds were administered and applied to further the general and educational interests of the school. The sensible use of a school's available funds to the benefit and in the interests of the pupils leads to a positive attitude towards the school among the parents and the community in general. Various countries put different legislations in place to manage schools' finances in Zambia "The Financial Regulation of 2021" has been put in place and it clearly explains and guides controlling officers on how to use finances in public institutions.

2.16.1 Financial Policy and Legal Framework

2.16.1.1 Policy Framework

These Guidelines have been developed to facilitate the implementation of the 1996 National Education Policy (Educating our Future, 1996) which articulates the provision of universal access to education for learners. The attainment of the Policy vision is premised on the Treasury providing adequate resources to meet all requisites in Government Schools that are necessary for the provision of universal access to education for all.

2.16.1.2 Legal Framework

Various pieces of legislation are related to and supportive of the management, disbursement, utilisation, and accountability of School grants which include:

- i. The Public Finance Management Act No. 1 of 2018;

- ii. The Anti-Corruption Commission Act;
- iii. National Audit Act;
- iv. Anti-Money Laundering Act; and
- v. Government Circulars.

These guidelines were developed regarding the above listed pieces of legislation and shall be implemented within the confines of the same legal documents. The objectives of the guidelines are to guide on the financial management and utilization of School funds and guide on best practices in the procurement of goods and services to guarantee value for money, reasonableness in prices, and timelines in the delivery of goods and services procured. To guide on what is an eligible and ineligible expenditure, and to define the roles and responsibilities of all stakeholders involved in financial management and procurement of goods and services (Guidelines for the Utilisation of Funds in Schools under the Education for All policy, 2021). The guidelines provide a step-by-step approach that will assist users at all levels in the financial management of the school funds. The guidelines present all the relevant forms and templates that are required for financial management at the school level.

According to the Ministry of Education (2021) school guidelines or legal framework for the utilisation of funds in schools, all schools should have school finance committees whose mandate and responsibility is to oversee the utilisation of school finances. In addition, schools must report any additional income earned as part of the amount shown in the budget at the end of the fiscal year, as they will report the actual final budget. In addition, labor and in-kind contributions will be reported. Accountants and school managers must work together to create efficient and effective mechanisms for the management and use of finance (MOE, 2021). Based on the decentralized economic policy fiscal policy that the country is currently following, Copperbelt Province has full control over its resources.

According to Knight (1993), school financial management does not operate in a vacuum. In systems that are still strongly centralized, those responsible for managing a school's finances operate in an "Alice in Wonderland" situation where, although they were managers, they did not know what their schools' costs were and were in no position to manage them. They end up seeing funds for their school as coming from some magical external source which they tend to view as none of their business. It is the intent of the State to move toward making every school

independent and self-managing. The full control of funds in the school, therefore, becomes the responsibility of the school governing body.

2.16.2 School's finance policy

For a school to manage its finances effectively and efficiently a school finance policy must be developed, adopted by all the relevant stakeholders, and implemented accordingly. The policy must comply with available legislation such as the Public Financial Management Act of 2018 and Guidelines for the Utilisation of funds in schools under the Education for All policy of 2021 which sets direction and gives guidance. Schools and systems need policies, and the financial policy may eliminate or reduce the mismanagement of school funds.

According to Ryan (1994), a good policy identifies and articulates the values and the basic principles to be applied to specific needs in an organisation. In other words, it tells an educator or an administrator what is required, and it sets the broad objectives that were achieved in managing the school's finances. An effective policy not only sets direction but also gives directions. Educators or administrators were left to apply that policy with the discretion required by circumstances and their professional judgement. A good policy has four distinct components that were identified within any policy document:

- ❖ A statement of the need for a policy. When the need has been clearly articulated the credibility of the policy and the policy-making process will be enhanced.
- ❖ A statement of the values and principles that were brought to bear on that need. Values and principles drive policy. Values such as transparency, democracy, and honesty form the basis of the policy.
- ❖ A statement of the "guide for discretionary action". Whatever the guide for discretionary action is identified, it must be a guide or a directive that an educator or administrator must merely implement.
- ❖ A statement of expected outcomes. Identification of expected outcomes assists in the necessary process of policy review or evaluation. It allows the simple question, 'Have these outcomes been achieved?'

It is necessary to spell out the rules and regulations for handling the money/assets of the school in the finance policy. The procedures for handling school fees, donations, post-dated cheque authorization for cheque payments, signatories to the bank account, bank overdrafts, trust

accounts, documentation, recording transactions, and every aspect related to the school's finances were included in the school's financial policy.

The finance policy should clearly outline the duties or responsibilities of the treasurer, finance officer, auditor, finance committee, school manager, and other persons (for example, educators) delegated for specific tasks. The finance policy must include a section on financial control mechanisms. The finance committee develops and puts in place control mechanisms that will contribute effectively to the safe and accurate administration of funds. The following key control mechanisms were developed and form part of the finance policy:

1. Cash receipts and cash payments
2. Tuck-shop control (if the school has one)
3. School fees
4. Management of assets
5. Stock control — cleaning materials and stationery
6. Petty Cash payments
7. Budgetary control

For example, the policy clearly outlines how the assets of the school were controlled or what criteria were applied to appoint a registered auditor. One of the most important principles in school financial management is the "separation of powers". The school education body ensures that various tasks are delegated to different people who have the necessary knowledge and skills to perform these tasks efficiently. This ensures transparency and accountability and avoids or minimizes fraud, pilfering, theft, or collusion.

2.16.3 Accountability and Rational Use of Funds

Accountability is a concept in ethics and governance with several meanings. However, it is usually used synonymously with concepts such as responsibility, answerability, blameworthiness, liability, and other terms that were associated with account-giving. Cuomo (2005) found that accountability helps to ensure the rational use of public funds through the following aspects: compliance with rules, regulations, policies, procedures, ethical standards, and management directives; efficient and effective operations of planned objectives; safeguarding institutional resources against forms of misuse; the reliability of the financial records and timely reporting; regular auditing of institutional financial statements; and the proper keeping of inventory records and their whereabouts.

Sevilla (2005) found that financial procedures were essential to directing resources toward desired ends. School fiscal resources normally come from various sources including the central government, the local government authority, tuition fees, non-governmental organisations (NGOs), extracurricular activities, and contributions from parents and the community around the school (Melyoki, 2006). These funds need some degree of discipline by creating control mechanisms across the system. The control mechanisms were the procedures such as auditing, transparency, bookkeeping, accounts, financial laws, regulations, and policies. These procedures must be aligned with other components to make spending more efficient and more responsive to strategic priorities (Sevilla, 2005). Many researchers have revealed that the rational use of public funds requires effectual auditing (Sevilla, 2005).

According to the UN (1999), auditing means verification of the accuracy of the data contained in financial statements and reports. Auditing may be used to scrutinize financial records to ensure that the financial statements are reliable and yield a correct picture of the financial activity and the condition of the entity (Gong, 2009). It not only assures the rational use of public resources but also curtails the abuse and misuse of public authority. It also helps to build an accountability culture through moral values and a sense of duty (OECD, 2010). It has an anti-corruption function as it exposes irregular, illegal, or immoral government behaviour (Gong, 2009).

According to Jenkins and Goetz (1999), people have the right to take an active role in the process of auditing to know how their representatives are utilising the funds. The school governing body must place an internal audit mechanism for regular checks of the school's finances. The audits were executed at least once a month by a team from the SEB or any appointee from the community (OAG, 2002). To have effective auditing, a school finance policy is formulated and referenced when the exercise takes place. The policy must complement other legislation such as the School Act and it sets directives and gives appropriate guidance. With the financial policies, auditing may be simplified, and mismanagement of school funds will be reduced. Similarly, transparency has a major role in promoting rational use.

Melyoki (2006) and Mushi (2006) define financial transparency as the accessibility of significant, convenient, and reliable data about the periodic performance, fiscal position, and administration of an entity. Financial transparency is critical for accountability in enhancing good governance of quality service delivery (OECD, 2010). The OECD (2010) found that transparency is highly relevant because it is a good tool to ensure citizens' access to information.

Navarro-Galera and Rodríguez-Bolívar (2010) suggest that with reliable information in the financial statements, citizens can understand the status of internal finances. Failure to access financial information makes it hard for citizens to relate to and assess the quality of service concerning the resources spent on services (OECD, 2010). Sevilla (2005) concurs with these points and argued that transparent reporting is essential for fiscal discipline and accountability to reinforce rational use.

However, the Government of Zambia has made significant progress in strengthening fiscal discipline and improving the efficiency of its Public Financial Management (PFM) system in recent years. Along with achieving macroeconomic stabilisation, the Zambian Government has strengthened the legislative base, increased the transparency of budget information, improved control over expenditure, and strengthened budget oversight. Despite all the efforts, most public financial management reform programmes were aimed at improving efficiency, accountability, and transparency in public financial management. School managers pay little attention to prudent resource management.

2.16.4 Sources of funds in secondary schools

According to Amenyah (2009) financing, in the education sector has always been a thin issue for parents, policymakers, and other stakeholders in education. Whatever pertains to Zambia now concerning education finance cannot serve Zambia as a modern state. The current system is basically fee-paying for all secondary pupils. The financial resource is the monetary resource that serves as a means of acquiring all the other educational resources. Its availability was of great importance to any education industry. The financial position of an institution has a lot to do with its continuity/existence of the institution. Ogunlade (1989) cited in Campbell (2010) identifies four major sources of financing for public secondary schools. They include:

1. Grants from governments, constituting.
2. School fees and PTA funds.
3. Fundraising ventures such as operating a school tuck shop.

Olowu (2002) cited in Olowoye, Oludotun, and Adetayo (2005) emphasized that funding is a crucial prerequisite that enables an organisation to maintain itself effectively and meet its commitment to individuals and groups who consume its output of goods and services. He further stated that absolutely nothing can be done in the whole world without the availability of adequate funds. Funds are financial resources that are the monetary input available for and expended on the education system.

Baker (2012) stated that an average, aggregate measure of per-pupil spending is positively associated with improved or higher student learning outcomes. In some studies, the size of this effect is larger than in others and, in some cases, additional funding appears to matter more for some students than others. Other factors may moderate the influence of funding on students' learning outcomes, such as how that money is spent in other words, money must be spent wisely to yield benefits. Durosaro and Fasasi (2009) asserted that funding education constitutes an important aspect of public finance since governments were involved in its provision and management. It also constitutes a vital aspect of private investment because voluntary organisations and individuals are involved in it. Ayeni (2003) cited in Oyesiku et al (2009) opined that all forms of educational planning involve some expenditure analysis and that the trends of the entire education system can be projected through funding.

2.16.5 Managing the Education Funds

All the efforts put in place to generate funds will become valueless if such funds are not effectively and efficiently managed. However, when resources are not well managed, they become waste, and to guide against such, it is necessary to put on ground planning strategies such as Budgeting, Auditing, Financial Rules and Regulations, Financial Records, Financial Accountability, etc.

2.16.6 Factors Affecting Financial Management in Public Secondary Schools

According to Longenecker et al (2006), it is always recommended to understand well those factors that affect the management of finances. Failure to understand these factors may lead to spending a lot of energy and effort hence no improvements in organisation performance. School manager accountability practices in the utilisation of financial resources determine the performance levels of the institution.

According to Mobegi et al (2012), every year the government channels some funds into public schools to cater for their needs. Despite this, some schools are currently experiencing financial constraints. This may be due to a lack of financial management skills by school managers and accounts assistants. Factors like lack of financial management skills by the school manager and the accounts assistants, lack of government regular auditing, and lack of involvement of the parents and teachers during the final budgeting may have a great influence on financial management in public secondary schools.

2.16.7 School Manager Financial Management Skills and Financial Management Practices

Management skills were considered a key factor in the management of finances. Many definitions were given about this concept. According to Joo (2009), effective financial management skills positively improve financial well-being and failure to manage finances well can lead to long-term negative social consequences. He further stated that financial management is mainly concerned with 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 have received increasing concern from researchers in recent years.

Management of finances in schools remains the core duty of the school managers and Accounts assistants. The school manager's key responsibility is to ensure that all resources in the school are well managed. The school manager must have a basic understanding of financial management to give the necessary instructions, to the manager of the school.

According to Brunet et al., (2002), the financial Managers' skills, competence, and the trust that persons establish with the school manager were invaluable. Many school managers do not have the necessary financial skills for managing school resources prudently hence they were not able to solve the financial crisis in the schools (Mestry, 2004).

According to Atieno (2012), school managers have many challenges when it comes to financial management. She further expounded that school managers be trained in financial management. School managers have financial limitations, especially in keeping financial books like the cash book (Ogola, 2007). He further noted that a school manager who lacks proper financial management skills will have difficulties in carrying out his work.

According to Simiyu (2006), the school manager is recognized by the government as the accounting officer. He is therefore directly accountable to the community, education stakeholders, and the ministry to 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 managers to be able to monitor and even understand how finances were being spent (Onsome et al, 2004). Despite most school managers lacking sufficient financial management skills, it has been established that they play a major role in the management of school finances in collaboration with SEB. Chepkonga (2006) and Green (2005) maintained that school managers need advanced knowledge of high-level financial management and strategies for handling funds in schools.

2.16.8 School financial management in Zambia

In Zambia, the Education Reform Act, 2011, Financial Management Guide for Schools (January 2018) placed financial management at the top of the education management agenda. Under the previous system of centralized resource allocation by local education authorities, school managers had little financial responsibility apart from managing the school fund. School governors had virtually no financial responsibilities, until the implementation of the 1986 Education Act (Levacic 1993).

Mestry and Bischoff (2009) concur that before 1994, school activities were largely unregulated in many education departments, and this had a detrimental effect on the culture of teaching and learning. Neither central government control nor devolution to the provincial level or school level can be effective without a clear set of guidelines or regulations on how schools are managed.

The national educational policy entitled “Educating Our Future” was launched in May 1996. It focuses on decentralisation, partnership, equity, efficiency, quality, democratisation, and effectiveness (MoE, 2007) between the parents and the government and aims ultimately to devolve decision-making and power from education departments to School Governing Bodies. It further stipulates that the control of funds in schools has now become the responsibility of the School Education Board, while the state apart from funding schools, requires a copy of the school’s finances.

The SEB must ensure the existence of and the effective execution of a sound financial policy. Regular checks and counterchecks were necessary to avoid the mismanagement or misappropriation of funds by any person or group (Bush & Heystek 2003). Figure 2.2 below illustrates the cycle of activities involved in school financial management. From this figure, it is apparent how material resources that were procured through financial resources were used to realize educational objectives.

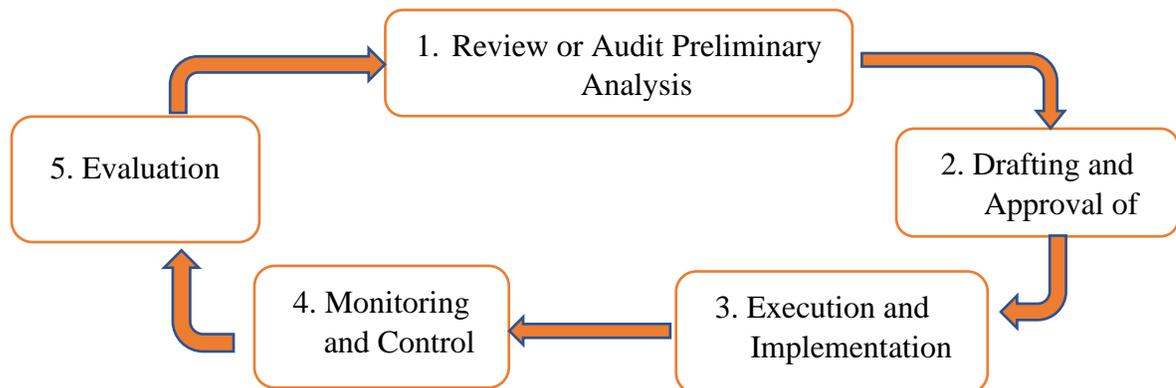
The combination and effective use of financial and material resources lead to the attainment of educational outcomes by providing appropriate educational activities. Outcomes were then evaluated against predetermined standards to inform the educational objectives of the next cycle (Naidu et al. 2008).

2. **Incremental budget:** The governing body builds the yearly budget on the previous year's budget.
3. **Activity-based budget:** This focuses on the importance of school activities.

2.16.10 The budgeting process.

The budgeting process has six main phases, beginning with preliminary analysis. This is followed by the budget construction, approval, execution (implementation), control, and monitoring phases, and ends with budget evaluation (Knight 1993; Bisschoff & Mestry 2003; Mestry 2005).

Figure 2.3 The Budget Cycle



Source: Jackson, (2008)

Undie (2013) opined that school budgeting today implies a process that involves a careful determination of annual school needs in terms of programmes or projects; a financial quantification of such educational needs, a projection of the sources of generating revenues, and a realization of the projected revenue resources among the planned educational programme or projects to satisfy the already determined educational needs most efficiently. This implies that school budgeting is a system of translating the needs, programmes, and projects of the school into money and its effective utilisation to achieve the desired objectives of the school within a stipulated time frame.

Wangai Report (2001) discloses that school managers lack managerial skills in planning, budgeting, and expenditure control, bookkeeping, procurement procedures. Consequently, it is noted that a lack of skills in budgeting and bookkeeping leaves most school managers at the mercy of finance officers who could easily mismanage school finances. It could also lead to the misallocation of resources resulting in a lack of essential commodities and services. There were two budget designs commonly used by schools.

The traditional or line-term budget design, with income as its first component and the more desirable but complex performance or school budget designs with educational objectives as the first component. In both, cases the budget design provides extensive and accurate estimates of income and expenditure, with the latter being categorized into recurrent and capital or development expenditures. Once the school budget is approved by the relevant authorities the next phase is to implement, monitor supervise, and control the budget to achieve the expected levels of school performance in the fulfillment of the school mission and the set objectives. The monitoring and supervision were a continuous process in budget implementation and required the following:

- ❖ Check that the expenditure is made in compliance with the budget authorization.
- ❖ Note whether there is a surplus or a deficit at the end of the year and whether there is a possibility of building reserves.
- ❖ Assess the implementation of the budget to prepare subsequent budgets more accurately.
- ❖ Provide continuity in the school accounting system based on subsequent balance sheets.

A school manager needs to control the budget by ensuring votes are not overspent, money received is appropriately entered and virement if necessary is authorized. In budgetary allocations, the school manager must seek to channel resources available to the educational activities, which yield the greatest impact and are likely to solve the envisaged educational problems. Thus, budgeting prioritization is essential in a school as the available finances and other resources may not meet all educational requirements.

2.16.11 Budgeting and Use of School Funds

Budgeting is the process of preparing a statement of anticipated income and the proposed expenditure. It is a process or a summary of the programmes of the school reflecting the expected revenue and expenditure. It is a plan which guides the school manager through the various school activities, as well as towards achieving the objective of the school. A budget will show how the results will be if the present school financial plans were put into effect and facilitate the evaluation of the financial performance of the school. Okumbe (1998, 198) gives several purposes for the school budget which include:

- ❖ Estimation of receipt, the basis of accounting and expenditure,
- ❖ Enables a comprehensive and equitable view of all services,
- ❖ Determination of quality and quantity services,
- ❖ A plan for attaining purposes,

- ❖ Confers authority to charge and spend, and
- ❖ Enables economic administration of an educational organisation.

2.16.12 Budget and Financial Management Practices

A budget is a financial plan and a list of all expenses and revenues. It is a plan for saving, borrowing, and spending. 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. According to Williams et al (1990), in their investigation on the part of Thompson's general related behavior of managers in complex, public sector organisations found out that it is an important processual variable in terms of enabling organisations 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 the 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 in schools in South Africa, budgets were poorly done while Mbogi (2012) in his study noted 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 affects the proper budget implementation and even paves the 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 school managers a chance to spend money as they wish and account for the same.

Walela et al, (2015) noted that for school managers of secondary schools to manage their finances well, there is a 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. Clear plans for spending the limited funds must be drawn.

Auditing: All the education sectors have a system of internal auditing of all expenses before payments are made. These check all books of account at least once a month to reconcile collections with deposits. Auditing guide against waste and fraud. Financial rules and regular release of funds include:

- i. Money is collected only by authorised personnel,
- ii. All monies collected in cash and cheque were deposited in the bank within twenty-four hours,
- iii. All payments must be approved by the manager,
- iv. Money set aside for capital assets must be used for recurrent expenses and vice versa,
- v. Cash advances must be retired within 30 days
- vi. All cash advance requests must be supported with relevant documents
- vii. Monies for recurrent expenses were deposited in a savings account or call deposit account
- viii. Quotations or tenders must be obtained from not less than three suppliers of pieces of equipment before purchases are made.

Financial Recordkeeping: One of the ways of managing funds is to keep adequate financial records. These records include the account books, budget file, impress register, fees register, bank statement file, payment vouchers, the local purchase order (LPO), and the cheque book.

Financial Accountability: The manager must be honest and above board in the management of funds. The manager is expected to prepare the statement of account on income and expenditures and send copies to all stakeholders of the education industry.

Odden and Archibald (2001) from the Consortium for Policy Research in Education (CPRE), describe what schools do to reallocate resources in response to higher standards. They emphasized that complex, large-scale change processes were required to support improved student performance. Schools must address regular instructional programmes as well as special programmes and have available resources required to implement various strategies in helping students' academic performance.

The researcher concluded that schools can pay for new education programmes. These include reallocating resources from pull-out programmes to regular classes, increasing planning time with innovative scheduling, expanding roles for teachers, and reducing the number of pupil support specialists (counselors, social workers, etc.). In short, the strategies they offer focus on resource reallocation by staffing categories.

2.16.13 Expending and Accounting for School Finances

Financial management covers the administration of financial resources including money, and how to generate and use it. Funds contribute to the nerve center of the school and must be properly expended for the school to meet its educational goals and objectives. Thus, all school managers must be conversant with financial accounting and must possess the basic skills requisite for prudent bookkeeping and efficient financial accounting.

Okumbe (1998) says that financial accounting is concerned with the maintenance of records in which financial transactions of an educational organisation like a school are summarized. It is the process of recording, classifying, and summarizing financial transactions of an educational organisation and interpreting the results of these transactions. The school budget once approved forms an important basis of financial accounting. Financial accounting in a school serves the following objectives:

- ❖ It ensures that the financial resources were used for the intended purposes only.
- ❖ It ensures proper business management for promoting the economy
- ❖ It enables education authorities to have a quick but effective check on both the rate of expenditure and proper financial control.

It was noted that MOE has issued specific instructions with regard to the spending of, and accounting for school funds in the Financial and Accounting Instruction Manual for Educational Institutions (Financial Regulations).

Mukuria (2002) notes that most of the mismanagement occurs at this stage and internal controls are instituted and continuously followed. In the study done by Onyango (2001) on the competence of school managers in the area of management of school finance and business, the researcher found that the school managers did not possess adequate proficiency in the following competencies:

- ❖ Preparation of financial estimates or budgets,
- ❖ Management and control of school finance,
- ❖ Raising funds for the development project,
- ❖ Generating funds within the school,
- ❖ Tendering, and Management of business.

Koech Report, Republic of Kenya (1999) paints a very gloomy picture of the competence of school managers in both financial management and financial accounting and reveals that; “The whole issue of poor financial management in educational institutions has contributed to increased cost and poor returns (value) for amounts spent. It is only in educational institutions where annual turnovers were managed by school accounts assistants who were not very qualified to carry out such an enormous task. Some school managers have no idea of the most elementary sound financial practices. The same school managers have no skill in project management and yet they were charged with planning and implementing expensive projects, which often fail to be completed due to poor supervision and misappropriation of funds.” In view of the above observation, the Koech Report (1999) gave the following recommendations:

- ❖ School managers were properly prepared and equipped with the necessary institutional and financial managerial skills to enable them to manage schools more effectively and efficiently and,
- ❖ The Ministry of Education strengthens the monitoring and supervision of the management of funds in the schools through measures such as annual audits and impromptu audit inspection exercises, to ensure efficiency and cost-effectiveness in the use of resources.

The importance of financial records cannot be over-emphasized. They serve as the basis of decision-making on any financial matter and as a basis for tracking the growth or decline of the school's assets or liabilities. There were systematic ways of accounting for budget implementation by keeping basic records, which were essential for a school or the effective handling of finances in a school. Some of these records or books of accounts are:

- i. **Receipt books:** These are printed, serialized, and issued at least in duplicate for all monies received. They were received for monies expended.
- ii. **Payment vouchers:** These are documents detailing the purpose of any payment made, the date of payment, the amount, the budgetary vote or item within which the expense is being incurred, and the authority that has sanctioned the payment. They can be in book form or loose sheets, which can be filed.
- iii. **The cashbook:** This is a book of accounts in which all financial transactions with respect to receipts; payments and banking are recorded daily. It has to be balanced daily. Cheques received or paid out all form parts of the day's income and expenditure respectively.

- iv. **The Journal:** This is a record of financial transactions done on a daily basis. The sales day, purchase day, sales return, and purchase return books are special journals as they record daily transactions. The journal was proper, on the other hand, is used for recording the transactions that cannot be entered into the books of original entry because of their special nature. These include the purchase of an asset, writing off bad debts, depreciation of assets, and correction of errors in posting from the cashbook. A narration that explains the transaction accompanies the journal entries.
- v. **The Ledger:** This is an extract of all transactions, which were recorded in the cashbook against each approved vote-head of the estimates. These were summarized monthly.
- vi. **Fees Registers:** These record each student's fee payment and capture any outstanding balance.
- vii. **Commitment Registers:** These records indicate the balance of a particular vote head and any commitments already made and were a good control record for budgeting.
- viii. **Stores Ledgers:** These are records for all stores received in a school and are in three categories namely:
 - ❖ **Permanent stores ledgers:** Records of stores with a life span exceeding two years
 - ❖ **Expendable stores ledgers:** records of stores that are neither permanent nor consumable
 - ❖ **Consumable stores ledgers:** Records stores that change form or nature when used.
 - ❖ **Inventory:** This is a stock register of equipment for both permanent and expendable stores.

The school's managers must of necessity be familiar with the listed books of accounts and their use in all financial and business transactions in their institutions when procuring goods and services the school managers must use Local Orders and Local Service Orders and all deliverance to the school must be accompanied by delivery notes and invoices well written and must be checked against the goods received. Payment of goods or services rendered were authorized by the relevant authorities and paid through cheques. Cash transactions were completely discouraged, and when unavoidable must be for small amounts. The use of tender boards for procurement of goods and services in public secondary schools is now a requirement by MoE for

all institutions. The basic accounting process is used to analyze data available in financial records. These are:

- ❖ Preparation of financial statements such as income statements, balance sheets, reconciliation statements, and flow of funds statements.
- ❖ Analysis and preparation of financial statements to arrive at hidden facts and draw corresponding conclusions.
- ❖ Preparation of comprehensive financial reports and
- ❖ Rendering of financial advice on the decision to be made in light of the conclusion reached.

A trial balance that is compiled every month enables an education organisation to ascertain the accuracy and objectivity of the obtained financial data. The trial balance shows a list of all the balances that appear at any given date of the month in the ledger and the cashbook of an educational organisation.

Okumbe (1999), says that the principle behind a trial balance is that when the debit and credit entries were made without any errors, then the total of debits must equal the total of credits at any given time. The trial balance also helps in providing information useful for the preparation of the profit and loss account. The columns in the trial balance include vote head, Ledger folio number, debit, credit, commitments, and balance of money available as of the end of the month. The balance sheet, which is made at the end of the accounting period or year, is a summary of the ledger account balances remaining in the books of accounts. The balance sheet shows the amount and sources of capital employed on one hand and the form in which such capital is employed on the other hand. The bank reconciliation statements enable the school to confirm the details in the cashbook with respect to bank statements at the end of every month. Differences in the two records may be a result of:

- ❖ Certain cheques received by the school were not banked even though debited in the cashbook.
- ❖ Some banked cheques may not have been recorded in the bank statement.
- ❖ Some payees may not have presented their cheques to the bank.
- ❖ Certain cheques may have been 'dishonored' for one reason or the other, and
- ❖ Bank charges may have been entered into the statement but not in the cashbook

2.16.14 Financial control

Control in the financial sense has to do with all the measures that relate to the planning and organisation of financial functions (Van Deventer 2003); financial control includes the following tasks:

- ❖ Drawing up criteria to ensure that the school's resources were acquired effectively.
- ❖ Monitoring and evaluating the school's financial progress.
- ❖ Initiating corrective action if needed

Organisations use control procedures to ensure that they are progressing towards their goals and that resources are utilised effectively. Control is the final step in the management process and forms the basis for a new cycle of management activities because it gives feedback to and influences the first step in management, namely planning. Financial control, as a management task, is the responsibility of the School Education Board. The SEB has to ensure that proper control mechanisms are in place in order to indemnify itself and its members. If there is mismanagement of school funds, the SEB members are bound to lose their professional integrity and information legitimacy (Naidu et al. 2008). The school's financial systems and controls that the school puts in place were there to protect all those who work with the school's money from charges of financial mismanagement, dishonesty, and fraud. The system is aimed at ensuring that the school's money is used for the purpose for which it is intended. Financial mismanagement can be reduced if a policy is drawn up to set out the regulations, practices, and procedures necessary for the prevention of fraud (Clarke 2007; Knight 1993).

2.16.15 Internal Control System and Financial Management Practices

According to Suleiman et al (2008), the internal control system is defined as the policies and procedures which were put in place to ensure that the assets of an organisation are protected and they were reliable for financial reporting. Internal control of organisations is meant to ensure the efficiency and effectiveness of activities, reliability of the information, compliance with applicable laws, and timeliness of financial reports (Jokipii, 2009). A proper internal control system ensures that the organisation's manager would utilise the financial resources 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 authorisation,

segregation of duties, record keeping, safeguarding, and reconciliation. These controls depend on the activity under consideration. The survival of an organisation depends on effective financial control, Paisley (1992). He noted that managers adopt rules and regulations to prevent fraud, anticipate overspending, and have continuous and accurate knowledge of the overall financial position. According to Rosalind and Downes (2004), to prevent fraud in school finances, the school manager to come up with clear procedures and responsibilities. These include separating staff duties, delegation of procurement authorization, and exercising effective supervision to make sure that rules and regulations are adhered to.

Kaharisa (2003) indicated that there is 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 their study, noted that more than 58% of SEB chairpersons, HODs, accounts assistants, and school managers who were involved in the study concluded that weak internal control mechanisms were the major factors contributing to financial mismanagement.

2.16.16 Auditing School Account Books

Berkhout and Berkhout (1992) suggest that auditing and calculation, accounting, and reporting are some of the specific functions that can be performed for control purposes. Whiteley (2004) stated that there were two types of audits, namely an external audit and an internal audit. The external audit is conducted by an independent person or firm while the internal audit is completed by the internal audit department of the organisation. Internal auditors investigate and monitor the internal control systems of the firm while the external Auditors complete investigations that would enable them to comment on whether the financial statements of an organisation provide a fair reflection of the transactions of the firm in the financial year and the financial position of the firm on a specific date (Hack et al, 1992). Auditing school accounts is the final stage in the process of managing school finances. The school manager has a statutory responsibility to prepare and present to the school governing authorities an audited financial report at the end of each financial year.

Okumbe (1998) describes auditing as the process of investigating the financial records of an educational organisation in order to ascertain the objectivity and accuracy of the financial statements with the major objectives being:

- ❖ To determine whether the financial statements made by an educational organisation were accurate in both calculations of figures and application of the recommended accounting guidelines.

- ❖ To determine whether an educational organisation uses procedures, that comply with the legal provisions, policies, and procedures stipulated by the Ministry of Finance, and
- ❖ To identify any operational problems in the accounting procedure used by an educational organisation so as to provide remedial recommendations for improvement.

There are two types of auditing, namely internal auditing which enables the school to appraise the effectiveness of its financial management techniques and control, and external auditing whose main aim is to ascertain that the school has complied with the stipulated financial control mechanisms. Financial auditing helps in detecting financial management flaws before it is too late to alleviate them, and either making recommendations regarding deficiencies and suggestions for improvement or identifying shortfalls and giving suggestions for investigations. The major causes of poor financial management in public secondary schools are a lack of auditing and or delays in audit reporting to the relevant authorities. Other causes may be due to lack of an independent audit unit and the shortage of manpower to go around the schools. Mukuria (2002) enumerates the following reasons for the mismanagement of finances in public secondary schools.

- ❖ Weak internal controls.
- ❖ Lack of defined roles for staff.
- ❖ Lack of segregation of duties.
- ❖ Non-involvement of SEBs.
- ❖ Dual role of school managers as financial and administrative managers.
- ❖ Poor bookkeeping.
- ❖ Lack of technical knowledge of accounts staff.
- ❖ The non-ownership feeling of the educational managers.
- ❖ Bureaucratic processes.
- ❖ Corruption involves all stakeholders.
- ❖ “Insider” interests in the financial transaction, and
- ❖ Lack of and/or non-implementation of budgets.

2.16.17 Misuse of school funds in public secondary schools

The school manager must act professionally at all times. Zambia’s main legislation on education, the Education Act 2011 defines each person’s rights to early childhood, primary, and high school education according to the Government Document Report National Review (2012). Mbobola

(2013) reported that school managers complained, especially in rural areas, that they lacked critical financial management skills in raising funds for maintenance and rehabilitation, motivating teachers, and paying casual workers. Teachers complained that school managers receive little or no training to develop their skills and abilities to transition from teachers to their headship positions and to continue to grow in the role (Mukundi, 2004). Commonwealth Education Partnerships (2013) stressed that when teachers are given the right opportunities and support through professional training, they are able to achieve their vision as school leaders, set time-bound goals for improving school processes, and take appropriate decisions directed towards the core objective of the institution, which is improved school outcomes.

According to Artley (2001), misuse of public funds is mainly caused by the factors which hinder accountability. Generally, these were hidden agendas that lead to corruption, weak leadership, insufficient resources, poor oversight, lack of clarity, poor capacity, and poor record-keeping. It is argued that it is difficult to determine the internal agenda of employees. Employees as normal human beings are unpredictable and have agendas that influence the performance of an organisation. These hidden agendas were defined by individuals in terms of goals they want to achieve in life. OECD (2010) adds that the hidden agenda is a dilemma for the effective use of public funds as issues of personal gain were placed at the forefront of the main goals of the organisations. It is also argued that misuse problems arise from a lack of transparency. As a result, it makes the realization of intended objectives difficult. Apart from transparency, the World Bank (2000) adds that corruption has been mentioned as the biggest issue in the misuse of public funds. This is because corruption serves the narrow interests of public officials against the needs of the public. The effects of corruption were clear in the service sector as it leads to inequality and hurts the most vulnerable in society.

Oliver and Drewry (1996) argue that misuse cases tend to happen when there is weak leadership. In these events, it is most likely that the organisation was let down by the particular behaviour of its officials. This is because dishonest individuals may capitalize on organisational weaknesses and public funds were misused. Strong leadership is essential to create a healthy environment for the rational use of public funds. It reinforces commitment, cements relationships, and monitors the behaviour of employees on financial matters.

It has further been argued that public officials tend to maximize their budget in order to fulfill their gains. This may be the reason why in some situations, resources were provided, and yet the intended objectives were not achieved. It has also been said that in order to avoid misuse within

an organisation, a definite number of resources have to be provided to individuals or teams in order to realize the required performance. However, this argument has been criticized by public choice theorists. Niskanen (2017) says a sufficient number of resources might be provided and yet funds were misused. Thomas (2008) concludes that financial resources were measured in terms of accomplished objectives.

According to the World Bank (2000), misuse of public funds also happens when the follow-up systems fail to oversee the money. This was similar to the findings of Bello (2001) and Onuorah and Appah (2012), who established that the misuse of public funds in Africa is a result of weak oversight and the unethical behaviour of public officials. This may largely be attributed to public officials being driven by personal interests. As a result, an enormous amount of funds is not used as intended. Patton (1992) and Abu Bakar and Ismail (2011) recommend that rewards or penalties be put in place to curtail public officials and their officers' misuse of taxpayers' money. However, this may not be effective if there were no commitments at all levels to hold into account those implicated in financial malpractices.

In this way, it was therefore contrary to what Hood (1991) stressed on discipline and parsimony as a way of enhancing the rational use of fiscal resources. Some studies indicate that the misuse of public funds is also caused by a lack of clarity in procedures. They suggest that without clarity, financial procedures may be misinterpreted and may direct funds to unintended objectives. Lotz (2005) writes that funding objectives, guidelines, and operational procedures were clear to make an organisation focus on its operations. Therefore, clarity is essential to avoid unnecessary misuse or deviations of the public funds from the main objectives.

There is increasing concern in various literature that the abuse of financial data is influencing the misuse of public funds. As OECD (2010) acknowledges, financial data provides key facts about the organisation. It, therefore, needs to be organised, managed, and released regularly to portray meaningful information for other parties to exploit. However, the quality of reporting has generally remained poor, and some financial aspects were not reflected in these reports. Therefore, it has been easy for dishonest officials to tamper with financial data, covering up the misuse of funds. This is evidenced by the report of the Ethics and Anti-Corruption Commission (EACC), which revealed that some dishonest officials exaggerate enrolment records in schools to attract more money, which they then divert to their personal needs. Polidano (1999) and Abu Bakar and Ismail (2011) found that schools continue to experience misuse problems in

developing countries despite many attempts to promote rational use and its legal prescriptions. On the other hand,

Mushemeza (2003) observed that school committee members in sub-Saharan Africa are functionally illiterate and often give blanket approvals to most decisions affecting operations in schools. This degrades the financial management in schools as decision-making processes are influenced by teachers. The findings of a study in one school in Nakuru County showed that a school manager misled the chairman to sign a cheque for Kenyan Sh 3,000 but later altered it to read Sh 30,000 and cashed it. Melyoki (2006) suggests that to avoid misuse at the school level, governing bodies constitute members that were knowledgeable enough about procedures guiding financial operations.

Public choice theorists such as Niskanen (2017) suggest that misuse of public funds is caused by weak links between costs and outputs. On the other hand, there is no motivation for political leaders and civil servants to control costs and as a result, there is waste and over-expenditure. This is justified in schools where school managers were focused on delivery rather than on productivity and efficiency. According to URT (2012), this is an area where misuse of school funds happens and severely reduces the quality of teaching and learning facilities in schools.

Haki Elimu (2003) found that school operations are subject to auditing and monitoring. This verifies that resources were in good control and priorities were followed. Indeed, misuse can also happen in schools that lack frequent monitoring and auditing by respective officers. This agrees with Momanyi (2006) whose findings revealed that school managers were not open with all stakeholders and therefore, the misuse of the funds can easily go unnoticed by the other stakeholders. It is argued that if there is a robust system of accountability that clearly defines procedures in place as well as the responsibilities of the players in the financial decisions then the misuse of public funds can be minimized.

2.17 Challenges school managers encounter in the Management of Funds in Schools

United Nations Educational Scientific and Cultural Organisation (UNESCO, 2005) observes that currently, there were signs of great interest in the provision of relevant management training for senior educationalists, especially for school managers. However, developing countries like those in Sub-Sahara Africa have been unable to put sufficient resources into human resources development because they have poor productive sectors both at family and national levels.

In the United States of America (USA), education is mainly provided by the public sector with funding from three levels, namely, federal, state, and local government. Because of the disparities in the economies of states and local authorities, funding of education varies regionally. Even within the same state, local authorities vary in their investment in education. For example, the state of New Jersey has the highest investment per child, and yet in this state, one district spends 8,000 dollars (highest) while another spends 4,000 dollars (lowest) (UNESCO, 2006). Child education in the USA is however compulsory. It is clear therefore that to achieve some parity, especially in developing countries such as Zambia, funds were equitably distributed from a central pool. For example; the introduction of Free Primary Education (FPE) in 2003 saw a shift in the functions of School Management Committees (SMCs) with emphasis shifting from the collection of funds and provision of infrastructure to the management of government funds and learning resources in the school (MOE, 2003).

According to a study by Kipkoech (2011), most school managers have difficulties in planning and managing schools' funds, among other managerial challenges. Most school managers have difficulty in planning and are plagued with inadequacy in financial management as well as in other administrative skills. It is imperative that the training of school managers and teachers is a continuous process, and the public is sensitized to support the government's efforts in the provision of quality education. Balwanz David, Moore Audrey, Ash Hartwell, and Destefano Joseph (2006) assert that capacity building of school Education Boards (SEB) and local communities are a critical element of education programmes.

The Ministry of Education recognizes the need for the enhancement of the capacity of governing bodies to ensure that their roles are carried out optimally. Capacity-building programmes of SEB in Zambia essentially revolve around financial management, legal matters, learner discipline and duties of the SEB, communication skills, policymaking, conducting meetings, and conflict management. People need the skills to understand budgets, bookkeeping, financial records, and administrative systems. Because of the regular turnover of school managers and SEB members, capacity building cannot be limited to one-off training. It requires long-term strategies, such as regular on-the-job training, support networks, advisory visits, and published guidelines.

It is the responsibility of the Ministry of Education to ensure that this takes place. SEB training makes a major positive contribution to school stakeholder cooperation and teamwork as well as a better understanding of responsibilities in school management. Additionally, the findings of this study have shed light on the present study, the policymakers in Zambia can re-enforce capacity

building for both school managers with their deputies and heads of department to be trained in financial management skills both at the district and provincial level. The major objective behind any training is to foster specific alteration of attitudes, which can only be realized if those in administration and education stakeholders have a solid understanding of financial issues and the dynamics of the policy.

Bennell and Akyeampong (2006) report that in Ghana the widespread introduction of education Boards has served urban communities better. This was because they have been able to muster financial capital to improve the quality of some urban schools, thus widening the quality gap between them and rural public schools. In Ghana, the Ministry of Education embarked on capacity-building plans for district education authorities with a focus on improving management efficiency and transparent decision-making (MOESS, 2006). In Ghana, for example, SEBs have been set up and their members underwent training on developing work plans for school improvement (World Bank, 2006). In Bangladesh, there is widespread dissatisfaction with how school management committees are functioning. They tend to be dominated by school managers and local political leaders, the reason being a lack of sufficient capacity to manage and use devolved funds. More than ever, in today's climate of heightened expectations, school managers were on the hot seat to improve teaching and learning in their schools. School managers of public schools play a vital and multifaceted role in setting the direction for schools that are positive and productive workplaces for teachers and vibrant learning environments for children.

Norman (2010) in a study of the importance of financial education in making an informed decision on spending conducted in Iringa in Tanzania established that school managers need to be educational visionaries, instructional and curriculum leaders, assessment experts, disciplinarians, community builders, public relations experts, budget analysts and financial managers, facility managers, special programs administrators, and expert overseers of legal, contractual, and policy mandates and initiatives.

Norman (2010) reiterated that school managers were expected to broker the Often-conflicting interests of parents, teachers, students, education officials, unions, and state agencies, and they need to be sensitive to the widening range of student and stakeholder needs. While that job description sounds overwhelming, at least it signals that the field has begun to give overdue recognition to the critical role and mounting demands on school managers. Being present and future school managers of public secondary schools getting the professional preparation they need to meet the heightened expectations and growing demand for efficient service delivery in

public institutions. A range of critics, including school managers themselves, raise a litany of concerns about the quality and effectiveness of the leadership preparation typically provided at teacher training colleges and elsewhere in the country.

The study found that curricula offered in teacher training institutions often fail to provide grounding for effective management skills among learners, and that mentorship and internships often lack depth or opportunities to test their leadership skills in real-life situations. The study further established that admissions standards in many teacher training institutions lack rigor and, as a result, too many graduates were eventually certified, but not truly qualified to effectively lead school-wide change management. The findings were relevant to the current study.

Maliwatu (2012) conducted a study on in-service training for school managers and its effects on their leadership practices. His focus was on school managers of Basic Schools of Copperbelt Province trained at the National In-service Teachers' College, Chalimbana, Zambia. There have been efforts to offer in-service training to school managers. However, while in-service training programmes are worthwhile efforts, there have been little efforts, if any, to establish the efficacy of the training provided to the serving school managers. Maliwatu's study was an attempt to establish whether or not the training provided for the serving school managers improved their leadership practices, and whether there was a significant difference in the leadership practices of the school managers who had taken in-service training and those who had not.

The study employed quantitative methods and the data was obtained from questionnaires and document reviews. The results revealed that the majority of school managers who had taken in-service training in the area of educational management and those who had not taken the training demonstrated practices associated with the leadership practices that were taken into account.

On the question of whether a significant difference existed between the school managers who had taken in-service training and those who had not, the results generally revealed that there was no significant difference in their leadership practices. However, the results revealed overwhelming evidence that there had been improvements in the school managers' leadership practices as a result of the training they had taken. Based on the findings of the study, recommendations were made, *inter alia*, that the Ministry of Education supports in-service training programmes for school managers, by involving more educational institutions in the provision of relevant training to school managers.

2.18 Strategies employed to ensure financial accountability in schools.

The Ministry of Education published the guidelines for the utilisation of public funds. According to the public financial regulations of 2018 and the Procurement Act of 2011, on Financial Management and Accountability in Government schools, the expenditure of funds must be supported by three quotations, an invoice, a delivery note, and receipts from suppliers within 48 hours. To this effect, the ministry has published a document explaining the documents required in every transaction to help in financial accountability in public schools (Education Sector Financial and Procurement guidelines, 2004). The regulations guide that the book of accounts at all levels was on a cash accounting basis to enable the dissemination of financial statements and financial management reports timely. These include all standard books of accounts and accounting records. The following books of accounts were to be maintained at each level:

- a) Cash books.
- b) Commitment and expenditure ledgers.
- c) Registers (imprest, cheque distribution, fixed asset, etc.).
- d) Payment voucher with supporting documents.
- e) Bank reconciliation.
- f) Expenditure returns/Reports.
- g) Receipt books.
- h) Local Purchase Orders.

2.19 Material Resource

Materials resources are items acquired to enable the organisation to carry out its functions (Likoko, Mutsotso, & Nasongo, 2013). Materials resources have been defined differently by various authors. Obanya (2009) viewed them as didactic material things that are supposed to make learning and teaching possible.

Isola (2010) referred to instructional materials as objects or devices, which help the teacher to make a lesson much clearer to the learner. According to Nicholls (2000), exclusively oral teaching cannot be the key to successful pedagogy. Learning materials are important because they can significantly increase student achievement by supporting student learning. For example, a worksheet may provide a student with important opportunities to practice a new skill gained in class. This process aids in the learning process by allowing the student to explore the knowledge independently as well as providing repetition. Learning materials, regardless of what kind, all have some function in student learning. Learning materials can also add important structure to

lesson planning and the delivery of instruction. Particularly in lower grades, learning materials act as a guide for both the teacher and the student. They can provide a valuable routine. In addition to supporting learning more generally, learning materials can assist teachers in an important professional duty: the differentiation of instruction. Differentiation of instruction is the tailoring of lessons and instruction to the different learning styles and capacities within your classroom. Learning materials such as worksheets, group activity instructions, games, or homework assignments all allow the teacher to modify assignments to best activate each student's learning style.

2.20 Material Resource Management

The success of an organisation rests in the way it manages the inputs. Material resources management is the function, which aims at integrating the management of materials in an organisation's undertaking. Its main objective is cost reduction and efficient handling of materials at all stages and in all sections of the undertaking (Kumar and Suresh, 1998). Different scholars define material resource management in different ways. Ballot (1980) defines material management as the organisation of material resources for the attainment of predetermined goals of an institution. Moreover, his material resource management is a coordinated function responsible for planning for, acquiring, storing, moving, utilising, and controlling materials and final products to optimize the usage of facilities, personnel, capital funds, and to provide customer service in line with corporate goals.

In addition to this, Chunawalla and Patel (2006) state that material resource management is concerned with management functions such as planning, organising, purchasing, warehousing, distribution, inventory controlling, and disposal of material resources. These activities form the framework for studying the nature and scope of management. Similarly, Nebiyu (2000), also states the functions of educational materials management as the coordination of planning, purchasing, moving, storing, and controlling materials in an optimum manner to provide education services at a minimum cost. Mbamba (1992) defines materials management in education as “.... Executive functions concerned with the planning, acquisition, allocation, purchasing, supplying distribution and controlling the proper use as well as maintenance of educational materials and facilities in order to realize the objectives of the education system.”

The objective of material resource management was able to provide what customers want, when, and where they want it; thus, it maximizes the use of the organisation's material resources. Moreover, Adesina (1990) explained material resources management in general as the “...

organisation of all human and material resources in a particular system for the achievement of identified objectives in the system.” Hence, materials management from its definition entails wise engagement in activities related to materials beginning with materials needs assessment, purchasing necessary materials, and ending with the proper disposal of unused /obsolete, scrap, and surplus materials. It means materials management also stresses optimal utilisation of the purchased material resources for effective and efficient attainment of the institutional mission and visions.

2.20.1 Functions Materials Resource Management

The functions of educational material resource management are expressed differently by different writers. For example, Gopalakrishnan (2005) discussed that educational materials management includes planning, purchasing, allocating, storing, and controlling. According to UNESCO (1984) materials, resource management functions include planning, warehousing, distribution, utilisation, and control of materials. In both cases, there is no overlooked function but they differ only in the way they treat each of the functions.

To sum up, in order to achieve maximum outputs in any institution in general and in educational institutions particularly, a deep understanding and implementation of the following major functions or activities of materials management are so crucial: procurement, warehousing, distribution, utilisation, inventory control, etc.

2.20.1.1 Procurement of Material Resources

All organisations, be it business firms or educational institutions require supplies of materials and services from outside sources. As a result, procurement is among the major functions that are essential for the existence of the organisation. Procurement encompasses all activities involved in obtaining goods and services and managing their inflow into an organisation. (Gebauer and Segav 2005). In order to ensure that everything goes well through to the end, the organisation would have to keep track of the process of procurement.

2.20.1.2 Resources Planning

Material resource planning is the primary function of management. It is the guiding instrument to select our goals and determine how to achieve them. It also lays a good ground for effective working and controlling systems. In connection to this, Bantie Workie (2004) stated that planning is the first function, it defines the goals and alternatives, and it maps out courses of action that will commit individuals, departments, and the entire organisation for days, months, and years to

come. According to MoE (2004,), education planning asks questions about: How do we find adequate resources to implement education programs? How do we use efficiently the resources to achieve the goals of education? Again, according to Biruk (2008), as cited in Wassenu (2006), efficient planning can help to attain larger and better aggregate results within the limits of available resources. For the effectiveness of utilising educational materials in the schools planning educational materials is very crucial specifically for fair distribution of materials among the users, for protecting wastages of the annual school budget, developing a saving culture of limited resources, and for good management of stocking as well as forecasting the need of users in the utility of educational materials in the school. In addition, the planning of educational materials is based on the need identification of the required educational materials and the budget allocated for the purpose.

According to Dobler (1971), the budget for educational materials can be prepared once the requirements are worked out. Thus, one can see that the purchase budget takes into account the inventory on one hand and orders on the other hand. Besides, the budget itself may be formulated to attain certain targeted inventory levels. It is the usual practice to formulate budgets both in terms of quantity and money.

In the context of educational materials planning, it starts with the collection, compilation, and analysis of data and information on the use of available resources (Mbamba, 1992). This enables us to identify the strengths and weaknesses and to forecast future courses of action. On the other hand, successful planning needs the participation of all concerned bodies. Regarding this, UNESCO (1992) stated that “Planning needs participation in decision making at every stage, identification of problems, the study of the feasibility, implementation, and evaluation.” In the context of secondary schools, school managers, teachers, administrative workers, students, supervisors, and the community participate in material resource planning to achieve the desired objectives of the school. One can conclude that planning of material resources in school takes place through the participation of concerned bodies such as school managers, teaching, and non-teaching staff to make the plan successful and able to be implemented accordingly.

In Ethiopia for example, Amare (1999) argued that educational materials did not get enough attention in the planning process by both planners and implementers in their action plans due to the problem of conceptualization. As evidence, he mentions the budget allocated by the country in the last five years to education as 6.8 percent out of the total budget of 12.2 billion birrs. Therefore, availability and accessibility of data, priority or emphasis given to educational

materials among other issues in education, availability of finance, or total allocated budget for education are some of the factors that have affected educational materials planning.

2.20.1.3 Purchasing of Material Resources

Purchasing implies the act of exchanging goods and services for money, whereas procurement is a generic term with a wider connotation for the total responsibility of acquiring goods and services (Datta 1998). Purchasing in relation to educational materials resources refers to the “procurement of teaching and learning materials”. In this connection, Mahajan (2002) stated that purchasing refers to the activities required for obtaining the material resources and services that are needed by the organisation. Moreover, purchasing is responsible for getting the materials, supplies, and equipment of the right quality, in the right quantities from the right source, at the right prices, and at the right time.

Supporting the preceding idea, Harold (2002) stated that material purchasing for education and training requires the ability to negotiate the necessary resource and commitments from key personnel in various support organisations, cooperation with other staff and individuals within the education and training center is vital to success. Productivity and efficiency of supply management are closely related to budgeting money that is available to a person or an organisation and a plan of how it was spent over a period and material and non-material wastages, skilled output standards of non-formal level technicians who is responsible to bring change in the social and economic aspects. As with any other business term, purchasing is defined differently by various experts. For Sharma, (2010), purchasing is the activity engaging in getting the right materials to the right place, at the right time, in the right quantity at the right price. Similarly, Chary (2000) defines purchasing as the process of buying materials for an organisation with the intention of facilitating the entire activities to achieve the pre-determinate objectives or goals of that particular organisation purchasing requires skilled personnel in order to facilitate the complicated procurement activities.

As indicated in Leenders et al. (2006) purchasing, supply management, and procurement are used interchangeably to refer to the integration of related functions to provide effective and efficient materials and services to the organisation. Thus, purchases are done carefully based on pre-determined objectives. It is important to note that purchasing embraces the flow of materials from the supplies to an organisation that has the intention of facilitating the attainment of predetermined objectives. In a narrow sense, the term „purchasing“ simply describes the process of buying; however, in a broader sense, the term involves determining the need, selecting the

supplier, arriving at proper price terms and conditions, issuing the contract or order, and following up to ensure proper delivery. These explanations show that purchasing is not a simple activity performed by any person. This indicated that the purchasing activity requires personnel who could make the proper selection of materials and services, follow up to ensure proper and timely delivery, inspection to ensure quantity and quality, and other important activities stated above.

2.20.1.4 Procurement procedures

Dereje Kebede (2006) indicated that the procurement processes may vary according to the rules and regulations a country follows. Its basic aim is to ensure that what is needed is made available when it is required. The materials are bought to conform to the established standards and more instructions. In Zambian schools, all school managers must follow the Procurement Act of 2011 when procuring required materials resources. However, the procedure for procurement of educational materials may vary according to the nature of education; the essential steps are as follows:

- ❖ Recognizing the need for the material by using check-ups of the available stock.
- ❖ Determining the quality of materials that were required, regarding the level of available funds.
- ❖ Deciding on a priority basis in relation to the available funds.
- ❖ Drawing detailed specifications of the required items.
- ❖ Preparing and publishing tender documents.
- ❖ Analyzing the tenders to determine the prices, availability of materials, etc.

In addition, Dash and Dash (2008) stated that materials are purchased as per the specifications in the quotation approved by the procurement committee, the requirements of the institution, and within the funds available for the purpose. Besides, Chapman and Arnold (2004) state that the function of purchasing is much broader, and if it is to be carried out effectively, all concerned individuals in the organisation are to be involved. Therefore, obtaining the right materials, in the right quantities, with the right delivery time, from the right source, and at the right price are all purchasing functions. Moreover, the act of purchasing consists of these steps: receiving and analyzing purchase requisition, selecting the right supplier, determining the right price, issuing purchase orders, following up to assure delivery dates are met, receiving and accepting materials, and approving supplier's invoice for payment.

2.20.1.5 Storage of Material Resources

Material resource management in schools according to Abdulkareem and Fasasi (2013) includes the provision, utilization, maintenance, and improvement of educational facilities and material resources. Poor storage of materials in schools may lead to damage, loss of items or parts, etc. Due to this, safe materials storage is required by putting materials in a straight line, in a group based on the similarity of their item mark are required to prevent materials from rain, light, and other preventable problems.

Furthermore, Mahajan (2002) has defined storage as "...a function of receiving, storing and issuing of materials, tools, spares, consumables, etc. to the respective department." Hence, according to Maynard in Mahajan (2002), the duties of storekeepers are "To receive materials, to protect them while in storage from damage and unauthorized removal, to issue the materials in the right quantities, at the right time to the right place and provide these services promptly and at least." In addition, proper utilisation of materials results in a large amount of savings. Proper storing avoids pilferage and wastage of materials. Thus, the scientific and systematic method of storekeeping helps considerably in reducing materials costs and expenses.

2.20.1.6 Utilisation of Material Resource

Educational material resources are vital if they are in good working condition at all times for their effective and efficient use. Knight (1993) regarding the utilisation of resources stated training institutions have a great duty and responsibility in managing, utilising, and controlling financial and material resources for better performance. Moreover, Gopalakrishnan (1998) defined proper utilisation of material resources as the function responsible for the coordination of planning, sourcing, purchasing, moving, storing, inventory, and controlling materials in an optimum manner to provide pre-decided services to the customer at a minimum cost. Moreover, Saxena (2003) indicated that the proper utilisation of educational material resources for a given application is essential for the following reasons. These are: for the completion of the job in the minimum possible time, for the completion of the work without damaging the equipment, thus ensuring the safety of the equipment, to do the work with less effort and less fatigue, to avoid chances of accidents, and to provide safe operations.

As reported in Bekuretsion (2005), optimum utilisation of available scarce resources and prevention of all types of waste were required by adapting a scientific system of management and controls of materials. Proper utilisation of material resources refers to the utilisation of material resources effectively and efficiently to sustain organisations as an organisation and to accomplish

their objectives. Ehiamentalor (2003) stated that the discipline of school business administration concerns the utilisation of available resources, which were scarce in relation to the need to achieve the goals of education. Therefore, if the materials were utilised properly, which guarantee the attainment of the planned goal (UNESCO, 2012). This indicated that proper use; directing and controlling of materials are important managerial functions in materials management.

According to Adesina (1990), the availability of educational resources is very important because of its role in the achievement of educational objectives and goals. Furthermore, the extent to which an organisation like an educational institution attains its objectives is directly proportional to the educational resources available and their utilisation. Hence, to realize the expected educational goals and objectives, it is essential to make available the material resources and to ensure the effective and efficient management and utilisation of materials. Accordingly, resource utilisation is the main emphasis in school management that finds efficient and effective ways to utilise the existing limited materials in the schools.

2.20.1.7 Inventory control

It is clear that one of the functions of material resources management is inventory control. Regarding this, many writers define the concept of inventory. For instance, according to Datta (1998), inventories are defined as, a “stock of materials of any kind stored for future use, mainly in the production process.” In addition, Mahajan (2002), defined inventory control as “The scientific method of finding how much stock should be able to provide the right type of materials at the right time in the right quantities.” Chary (2000), on the other hand, stated that inventory is needed for the uncertainties involved in the usage or availability of the materials. Thus, it ensures that one stage of production does not suffer because of the non-functioning or malfunctioning of the previous stages of production over which the former is dependent. Inventory is the stock of any item or resource used in an organization.

Everette (2003) stated that the basic reason for carrying inventories is that it is physically impossible and economically impractical for each stock item to arrive exactly where and when it is needed. He stated that inventory is crucially important to almost all businesses or organization whether it is product or service oriented. An inventory system is a set of policies and controls that monitor levels of inventory and determine what levels should be maintained, when stock should be replenished, and how large orders should be (Jacobs, 2008). Inventories

and material resources management are, therefore, the most important activities in the school program. As a result, great attention should be given to their accomplishment.

Inventory control provides storekeepers with information about educational materials that are in use or storage. Hence, in the absence of careful inventory control, there could be an inefficient use of the materials and a wastage of financial resources by making an unnecessary purchase. Inventories are kept in order to be certain that regularly used supplies and equipment are always on hand and that there is no overstocking or understocking (Condolie et al, 1984)

Furthermore, an inventory system of materials is intended to guarantee the proper use of limited resources, to measure the success in achieving the objectives, and also to settle the continuing relevance of limited resources in a changing situation (UNESCO, 1984) In conclusion, inventory control is responsible for keeping detailed records of parts and materials in the material for the operation of educational activities, these resources need a continuous control to make available information, ideas, methods and convincing data required for pertinent decision making. Proper utilization, effective controlling mechanisms, and timely efficient inventories of educational materials are vital to facilitate and promote the quality of education.

2.21 Methods used by school managers to monitor material and financial resource

According to Sharma (2011), one of the methods that school managers use in monitoring school resources is by planning a budget. Sharma further argued that in the case of secondary schools, school managers and administrators are charged with the responsibility of planning the school budget in order to monitor the spending of school funds, which, helps to achieve the objectives of the school and effective financial management. This implies that coming up with the school budget is one of the methods that school managers use in monitoring school funds. A budget helps managers know how much money must be spent per term and how much must be saved for the next term.

The budget also helps the school managers to carry out internal auditing. Ogbonnaya (2000) supports the above argument by contending that the main purpose of financial budgeting is to ensure that funds sourced are utilised in the most efficient and effective manner. The author further argued that resources are scarce and therefore educational administrators have to optimally and prudently use available resources for the attainment of institutional objectives. Lack of budgeting of available funds leads to embezzlement, diversion of funds from prioritized projects, and misappropriations.

A study by Demba (2013) has also revealed that the annual budget process affected the performance of the college through budget accuracy, cost minimization, resource allocation, financial information communication, and having internal accounting experts. In line with Ogbonnaya, Hansraj (2007) study revealed that school managers and school governing bodies were entrusted with the responsibility of ensuring funds were well managed in the school. This was through proper and adequate budgeting, procurement of items and purchases, and ensuring high levels of accountability and transparency in all activities. The study emphasized prudent financial management in schools in order to ensure resources are allocated adequately and to enhance the achievement of school objectives.

Furthermore, Maronga and Kengere (2013) argue that the governments have been enforcing financial management in schools through financial regulations such as financial management policies that involve imprest management, financial auditing among others, credit management policy, and inventory management policy. It is noted that a considerable number of schools especially in Gucha district followed recommended government financial management practices. Similarly, Dunn (2005) contends that internal controls are an integral part of careful financial management in every school setting. Internal controls provide a system of checks and balances to detect financial errors and irregularities in a timely fashion. Most internal controls are designed and used as measures to prevent mistakes from occurring or to correct operational or recording errors.

According to Campher et al., (2003), “Financial accounting is an essential component of the financial management of a school. A school needs to process, analyze, and interpret financial data and information in order to function effectively.” Mestry argued further that in terms of financial matters, the school managers have various kinds of school accounts and records kept properly and make the best use of funds for the benefit of learners in consultation with the appropriate structures.

The school manager sees to the day-to-day management of the school and has to implement many directives and policies formulated by the Ministry of Education (MoE) and the School Education Board (SEB). This simply means that record-keeping is one of the methods that school administrators use to monitor the usage of school resources. Recording keeping helps school managers to know whether the school procurement and store officers are misusing materials and school funds. In line with Mestry, Van Deventer, and Kruger (2003) state that an important

characteristic of the present approach to education management in general and financial management in particular, is the emphasis on transparency and information sharing among all stakeholders. For the school manager, this means that they must deal with funds in a responsible manner and that they are accountable to the parents, the learners, and the community.

Van Deventer and Kruger (2003) mention further that to be able to provide a clear picture of the state of a school's finances, the school manager to see to it monthly and quarterly statements are kept safely for future reference. The Establishment of a finance committee as Bischoff and Mestry (2007) put it is another method used by school administrators in monitoring material and school resources. They further stated that a Finance Committee be formed to assist the SEB in handling the financial matters of the school. Campher (2002) supports Bisschoff and Mestry by stating that schools may establish committees including a finance committee and executive committee and appoint persons based on their expertise and each committee must help in monitoring the usage of school resources.

2.22 Challenges associated with the accountability of material and financial resources in schools

According to Olembo (2005), school managers are responsible for the efficient and effective management of school finances in order to promote the delivery of services. It is however noted that the school managers, more than often underperform in financial management. This is due to employing less qualified staff who are inefficient and not adequately equipped in maintaining financial records, and financial controls and fail to adhere to accounting procedures. This implies that appointing unqualified officers to take over financial offices is one of the challenges associated with the accountability of financial and material resources in schools. For example, some school managers put loyalty first rather than qualifications when making local appointments. Most office bearers like procurement, store officers, and assistant accountants are appointed from either mathematics or social sciences departments rather than business studies. This is a challenge owing to the fact that such officers have little knowledge of financial management.

Magak (2013) supports the above point by arguing that incompetency in procurement, inadequate and irregular auditing, lack of accounting supportive documents and records, and inability to prepare end-year financial statements among others are problems associated with unqualified financial management officers in schools. The author sees the urgent need to examine financial

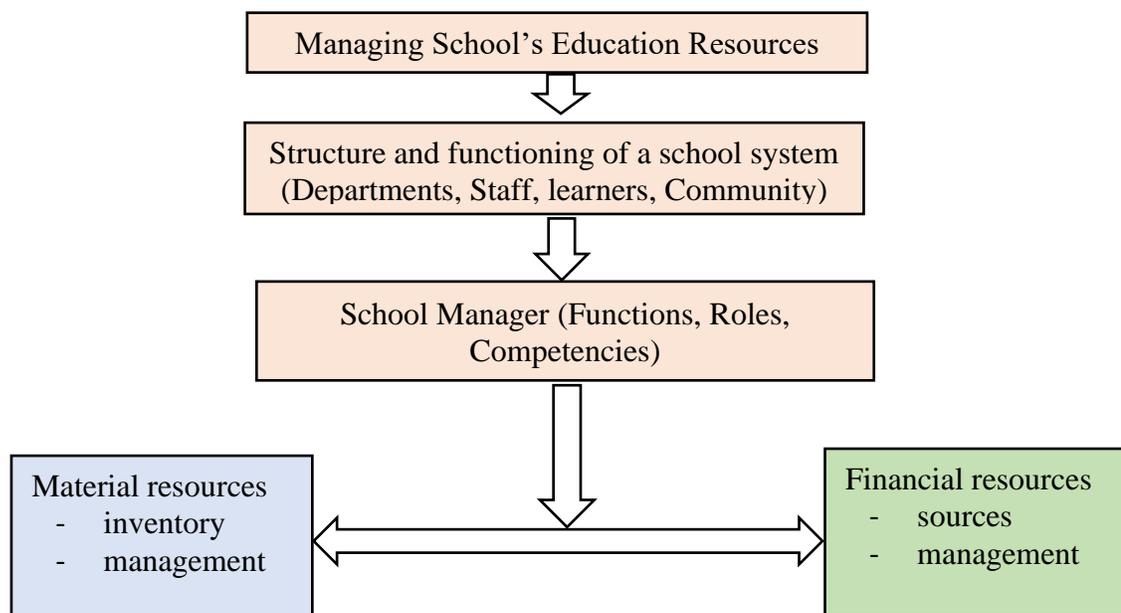
management in learning institutions and adequately train school managers on financial management.

Mito and Simatwa (2012) add that poor budgeting is one of the major reasons that derail the effective management of schools. This is due to overspending or underspending which leads to misappropriation and mismanagement of school funds. The authors further noted that, in addition to poor budgeting, delay in the disbursement of grants to secondary schools poses a challenge in the management of finances due to late settlement of transactions. In addition to this, Magak (2013) notes that school administrators in learning institutions experience thorny issues while managing institution funds.

2.23 Education resources management

Education resources are not only limited but can be effectively and efficiently managed when management activities are properly harmonized, organised, coordinated, and controlled by the school management team. This is in agreement with Blunt's (1990) opinion that: it is not the availability of these resources alone that guarantees the effective performance of the school, but their adequacy and effective utilisation. The chart below shows the organisational presentation of how school resources are managed.

Figure 2.4: Organisational presentation of school resources management



Source: Author, (2022)

2.23.1 Material/Physical Resources

These are tangible resources that can easily be seen and observed in any institution. The physical resources include the structure, machines, raw materials, vehicles, and other tools, which can facilitate the organisation's activities and processes. The physical resources may not be the same in all organisations. In the educational system, the physical resources would include the classrooms/lecture rooms, staff offices, vehicles, health centres, library, laboratory, and so on, which directly or indirectly contribute to the achievement of goals. This is why accountability becomes key in the day-to-day running of schools. The school's physical resource management has a direct impact on the learning environment and is a key determinant of educational outcomes. It is, therefore, critical that school physical resource management practices align with the school improvement plan by linking school assets to basic education service delivery standards and strategies. Facility maintenance entails providing a clean and safe environment for teaching and learning. It also involves the provision of adequate facilities for teaching and learning. According to Asabiaka (2008), the following type of maintenance was adopted in the facility maintenance plan. These are preventive, routine, emergency repairs, and predictive maintenance.

2.23.2 Financial Resources

Financial resources are the funds required for the smooth operations of a school and are regarded as the life-wire of any system. It is indeed a more critical facet with which other factors of administration are created, maintained, and sustained. In school administration, funds are necessary for the procurement of facilities, equipment, electronics, and communication gadgets needed for effective performance. Apart from this, funds are needed to pay the salaries of board workers. A robust financial allocation for school administration would not only enhance goal attainment but its sustainability. Plan and policy implementation is responsive to funds availability. Funds are needed for the fixed and current assets and to settle current liabilities and expenditures incurred in the course of administration. That is why accountability of financial and material resources in school is very important. Financial management in school covers such areas as the procurement of funds, their allocation, monitoring their use in the interest of accountability, and producing financial reports for the relevant stakeholders. Effective school financial management ensures that:

1. All financial regulations and procedures are complied with.
2. Adequate controls are in place to ensure that expenditures do not exceed income.
3. Only authorized expenditures are incurred, and transactions are recorded accurately.

2.24 Research Gap

Despite the various studies on accountability in the reviewed literature, there is still a deficit in the literature regarding school manager accountability practices in financial and material resources utilisation and implications on school performance in public secondary schools in Zambia have not been brought to light. Most studies on accountability have focused on the public sector but not on learning institutions. It is therefore apparent that the available empirical evidence on school manager accountability practices in financial and material resources utilisation and implications on school performance in public schools in Zambia be fully exploited and this study will seek to do that. This therefore necessitates the need to research in this area to bring out the relationship between school manager accountability practices and school performance levels.

2.25 Chapter summary and conclusion

The study focused on school manager accountability practices in the allocation and utilisation of financial and material resources in public secondary schools and lightered the implications on school performance and the chapter has explored in detail previous works done by others in relation to the topic. As mentioned earlier, performance is indicated, amongst other things, by the quality of their products, which entails learners' knowledge, skills, and overall academic performance (Brill et al., 2018).

The literature has highlighted aspects of school manager accountability practices in the utilization and management of financial and material resources and their implications on performance. It has explored school managers' accountability practices and procedures in the allocation and utilisation of financial and material resources. The literature revealed the tools school managers use including asset registers, stores ledgers, payment vouchers, goods received vouchers, stores requisition, bank reconciliations, receipt books, bin cards, cash books, bank statements, cheque registers to monitor and control material and financial resource utilisation. school managers use to monitor the allocation and utilisation of financial and material resources in schools.

2.26 Projection of the next chapter

The literature shows that school managers are very important not only for the academic achievement of students but also development of a school as a whole. Also, the literature review has provided the grounds for the methodology chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In the preceding chapter two, the researcher explored relevant literature to the study objectives with a view to identifying the research gap on school manager accountability practices in the utilisation of financial and material resources and its implications on school performance. This chapter aimed at explaining and justifying the philosophical foundations, research design, and methodological approach to the study. The philosophical assumptions of the study were discussed in section 3.2. As such, the chapter dealt with the methodological procedural steps followed by answering the research questions (Maree, 2015).

3.2 Philosophical assumptions

Research is a fundamental way of understanding, or logical reasoning about human beings, their activities, and the relationships they engage in (Vanderstoep & Johnston, 2009). Creswell (2014) stated that every research approach involves philosophical assumptions as well as distinct methods or procedures. Bahari (2010) pointed out that research philosophy in social science relates to the development of knowledge and the nature of that knowledge in the social world. In making sense of the research enquiry, Creswell (2013) attested that the researcher draws explicitly from a set of traditions or philosophical positions. Noor (2008) stated that many of the studies in social research and education are dominated by two traditions, post-positivism, and positivism each of which has different presumptions about the nature of reality.

Post-positivism is a spin-off of positivism and a reaction to it (Creswell, 2013). The post-positivist views reality as socially constructed rather than objectively determined (Noor, 2008). We construct individual views about the world based on our perceptions. Such an individual lens about the world means that post-positivism believes in subjectivity and rejects absolute objectivism. Accordingly, the task of the researcher was to collect facts, determine the patterns of events, and appreciate the constructionist and interpretivist grid that people place on their experience (Flick, 2014).

Noor (2008) declared that post-positivism deals with understanding social phenomena while recognizing the subjective lens of participants and the researchers. Positivism, on the other hand, is a worldview whose central tenet is that ideas are the only thing worth knowing; such reality was directly observed and measured, and the enquirer pursued absolute truth (Creswell, 2013).

Positivism, as observed by Noor (2008), is the preferred paradigm for the natural sciences that deals with facts, and is closely likened to the quantitative approach analysis. In a nutshell, positivists believe in an objective researcher who collects facts based on which he explains social phenomena and arranges such events and facts in a series of causality (Noor, 2008).

Noor (2008) declared that positivism deals with understanding social phenomena while recognizing the objectivity lens of participants and researchers, and fits a quantitative approach. Within the positivist paradigm is one school of objectivist realism that underpins this study.

This study was overlaid on the objectivist realism philosophical foundations which rejected subjective knowledge and acknowledged objective knowledge due to the issue at hand. Positivists believe that different researchers would generate a similar result using the same statistical tools by following the same research process while investigating large samples and paving a path for context-independent universal generalization (Wahyuni, 2012). Thus, it advocates for the use of quantitative research methods (Kivunja & Kuyini, 2017).

Paradigm is naïve realism, epistemology is objectivism, and methodology is experimental. Positivist believes that there exists only one true reality which is apprehendable, identifiable, and measurable (Ponterotto, 2005). In agreement with Kivunja and Kuyini (2017), the researcher believes that the realism objectivist view suits this study because the researcher and subjects are independent of each other and the conscience of the researcher is not as important as the meaning lies with the subjects (Crotty, 1998). They interact with the world impartially (objectivism) and discover absolute knowledge about objective reality and, the researcher studied the subjects without influencing them.

3.2.1 Research Philosophies and Paradigms

The philosophy supporting any kind of research is closely knit with the concepts of ontology, epistemology, and axiology. The philosophies are closely related to the fundamentals of the paradigm with paradigmatic preferences of the researcher that helped the researcher to arrive at a methodological choice.

This section started with the presentation of the theories of ontology and epistemology school of thought, with the nature of paradigms, and took it further to discuss paradigmatic preferences to ontological and epistemological assumptions. The paradigmatic preferences and philosophical standpoint of the researcher are presented next which helped the researcher answer the research questions set out in Chapter One.

3.2.2 Ontology and Epistemology

3.2.2.1 Ontology

Ontology is defined by Crotty (2003) as “the study of being”. According to Saunders et al. (2009), “Ontology is concerned with the nature of reality”. It is concerned with “what kind of world we are investigating, with the nature of existence and with the structure of reality” (Wydeman,2002). Guba and Lincoln (1989) stated that ontological assumptions are those that respond to the questions. So, for a Positivist, the world exists independently of our knowledge i.e.- it exists out there (Gray, 2013) waiting to be discovered. Researchers need to clarify their stand on their perception of reality and how things function (Scotland, 2012). Ontology indeed is one of the most abstract and difficult terms to understand, its importance in the research journey cannot be negated. A researcher's knowledge, intentions, goals, and philosophical assumptions are interlinked with the research undertaken (Mack, 2010).

3.2.2.2 Epistemology

Epistemology on the other hand is a way of understanding and explaining how we know what we know (Crotty,2003). Epistemological assumptions are concerned with how knowledge can be created, acquired, and transferred (Scotland, 2012). It is responsible for knowledge gathering and concerned with developing new knowledge in the form of new models or theories (Grix, 2002). Collis and Hussey (2009) defined epistemology from a research perspective and argued that it is concerned with the core question: “What do we accept as valid knowledge?” For Easterby Smith et al. (2008) epistemology relates to the “general set of assumptions about the best ways of inquiring into the nature of the world”. The epistemology of positivism is that of objectivism. The focus of positivism is dualism and objectivism (Ponterotto, 2005). As noted earlier, the ontological and epistemological assumptions and the stance of the researcher have a major impact on the way research is carried out.

3.2.3 Paradigms

The word Paradigm was first used by Thomas Kuhn (1962) to represent a Philosophical way of thinking (Chffee, 2015). A Paradigm can be understood as a set of beliefs that represents a worldview (Guba & Lincoln, 1994). It can also be defined as a mental model or a framework of thought or belief through which one interprets reality. A paradigm speaks about the researcher's philosophical orientation which decides ontology, epistemology, methodology, and methods to be used. It reflects the researcher's abstract beliefs that guide his/her interpretation of reality (Babbie, 2015). Gummesson (2000) suggested that the concept can be used to represent "people's value judgments, norms, standards, frames of reference, perspectives, ideologies, myths, theories,

and approved procedures that govern their thinking and action." According to Chalmers (2013), a paradigm also includes standard rules applied in various situations and helps the researcher to grasp a clear picture of the world. It is in this vein that the philosophical paradigm of the researcher in the current study heavily influenced the method chosen to address the research questions (Frankel et al., 2005).

3.2.4 Positivists' Approach

Positivism dominated social science research for a long time until the recent emergence of critical social science. Guba and Lincoln (1994) argued that positivism is rooted in the ontological assumption of objective reality. Positivism is concerned with variables, which embrace several assumptions about the social world and how they are investigated. Positivism is logically connected to pure scientific laws based on facts to satisfy the four requirements of falsifiability, logical consistency, relative explanatory power, and survival (Lee, 1991). Lee (1991) further described the theoretical requirements of positivism that theories must not only conform to empirical observations but also be falsifiable. For the second requirement, theoretical propositions are related to one another in a given theory and explain or predict competing theories. Thus, a falsifiable, consistent, and explanatory theory that survives through empirical tests.

Levin (1988) argued that positivists believe in a stable reality that is observable and objective which others can easily repeat. The positivists believe that a social science researcher is separated from the phenomenon being researched and is value-free. Positivist research is, therefore, a "systematic and methodological process" (Koch & Harrington, 1998, as cited in Walker, 2005) that emphasizes "rationality, objectivity, prediction, and control" (Streubert & Carpenter, 1999). Factors extracted from these ideas of rationality and objectivity, prediction, and control comprised methodological or instrumental positivism. Positivist advocates were concerned with abstracted empiricism based on quantitative methods, which were mainly numerical and subjected to statistical analysis (Duffy, 1987; Morgan & Smircich, 1980).

Positivism aims at measuring the variables of a social phenomenon through quantification. Quantification refers to the variables that can be expressed in terms of numbers and frequencies. This also uses mathematical tools to reveal the significance of drawing conclusions. The quantity differences are employed statistically to determine variations among variables (Bourdieu & Wacquant, 1992) and why such variations exist. Positivism strongly maintains that methodological procedures of natural sciences are adaptable to social sciences. Social science

research is value-free and takes the form of causal laws when explaining social regularities and patterns. Their methodologies range from cross-sectional, experimental, and longitudinal studies and surveys. Logical positivism is recognized as the most important in the explanation of different phenomena and forms the basis for scientific evaluation where programmes and policies require realistic outcomes (Pawson & Tilley, 1997).

3.2.5 Philosophical perspectives

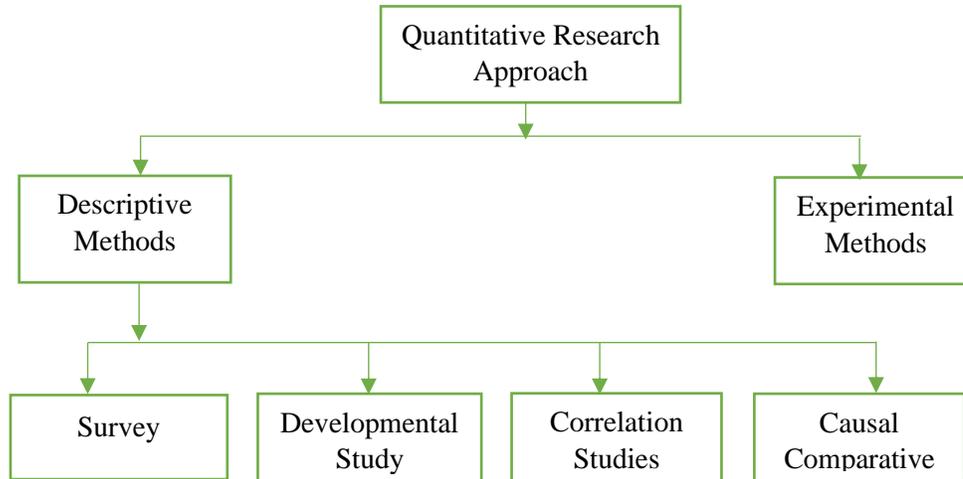
In a study that focuses on exploring school manager accountability practices in financial and material resource utilisation and their implications on school performance, the researcher has adopted a positivist assumption research approach, by identifying the main concepts from the theory construction, and by searching for linkages between concepts, which allows one to make predictive claims and bring conceptual coherence by explaining links between propositions (Botha *et al*, 2011; Mouton, 2001; Cooper and Schindler, 1998). In the current study of school manager accountability practices in the utilisation of financial and material resources and implications on school performance in Copperbelt province of Zambia, the researcher followed the positivist paradigm and the study was descriptive, whereas a quantitative research approach was used to analyze the hypothesized relationships. Positivist approaches provided a good insight into the phenomena being studied (Chipunza *et al*, 2011).

3.3 Research Approach

A research approach is a plan and procedure for the research that spans the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. Creswell (2013) defines a study approach as a framework and procedures underpinned by broader philosophical perspectives, detailing methodology, data collection, and analysis. This thesis followed the positivist paradigm due to the phenomena under study. The positivist approach in this study assumed that managerial accountability is an unbiased physical reality in its social world comprised of actors and objective reality that are modeled, quantified, and tested statistically. Literature on school manager accountability practices in financial and material resource utilisation made extensive use of large-scale surveys and models, especially on financial accountability. The research questions in this study were concerned with the antecedents of managerial accountability with specific reference to the school managers' practices in financial and material utilisation in public secondary schools. Therefore, this study followed the positivist approach that allowed the researcher to conduct surveys and carry out statistical analysis to produce facts and figures (Safiullah, 2015; Chien, 2013; Chipunza *et al*, 2011).

The survey design is used for descriptive, explanatory, and exploratory research. A descriptive survey design was used in this study to collect original data for describing a population too large to observe directly (Mouton, 1996). Figure 3.1 below shows the quantitative research approach used in this study.

Figure 3.1: Quantitative Research Approach



Source: Bums and Grove (1993)

3.4 Research Design

Kumar (1999) stated that a research design is a procedural plan that is adopted by researchers to answer questions objectively, accurately, economically, and with validity. A traditional research design is a blueprint or detailed plan of how a research study is to be completed; operating variables for measurement, selecting a sample, collecting data and analyzing the results of interest to the study, and testing the hypotheses (Thyer, 1993). In the most elementary sense, the design is the logical sequence that connects the empirical data, research questions, and conclusions (Yin, 2002). Bryman and Bell (2007) stressed that a research design provides the overall structure and orientation of an investigation as well as a framework within which data can be collected and analyzed. Miller and Lessard (2001), and Yin (2002) also provided detailed descriptions of the essential considerations in designing the research project.

Furthermore, Yin (2002) stressed that the main purpose of the research design is to help avoid a situation in which the evidence does not address the initial research questions. In this sense, a research design deals with a logical problem and not a logistical problem. Rani (2004) described a research design as a blueprint or an action plan, specifying the methods and procedures for collecting and analyzing the needed information, fulfilling the research objectives, and finding

the solutions, and, suggested four basic design techniques for research, namely, surveys, experiments, secondary data, and observation.

This study utilized the descriptive-correlational research design. This design provides a snapshot of the current state of affairs and discovers relationships among variables to allow the prediction of future events from present knowledge (Stangor, 2011). This design was deemed appropriate for the study because it attempted to describe the underlying variables of the study and revealed the degree of association between the variables of the study. Hence, it gave a better and deeper understanding of the phenomenon based on an in-depth study, which provided the basis for decision-making. Therefore, a design that is exploratory, diagnostic, and descriptive by nature fits this study (Cresswell, 2012). To achieve the four research objectives, the study adopted a quantitative research methodology. According to Fraenkel & Wallen (2003), quantitative research can be classified as either descriptive or experimental. The purpose of descriptive research is to become more familiar with the phenomena, gain new insight, and formulate a more specific research hypothesis. Descriptive research fits this objective study and a survey research design was adopted for gathering information for the purpose of constructing quantitative descriptors of the attributes of the larger population (Czaja & Blair, 2005; Groves et al., 2004).

The survey research design involves research in which (a) data are collected from members of a sample that represents a known population; (b) systematic technique of data gathering which is observed by obtaining estimates of the population parameters in a rigorous fashion; (c) the researcher manipulates no independent variables; (d) data are sought directly from respondents; (e) respondents provide data in natural settings; (f) the purpose of the research may range from exploration of phenomena to hypothesis testing; and (g) the resulting data are often put to both descriptive and analytic use (Czaja & Blair, 2005). The adoption of survey design as the method of inquiry in this study followed the prescription recommended by Groves et al (2004). Surveys were used for descriptive, explanatory, and exploratory research. This design was chosen to meet the objectives of the study and to determine the knowledge, skills, and practice levels of school managers, accounts assistants, and store officers with regard to accountability of financial and material resources and how it affects the school performance in public secondary schools in Copperbelt province of Zambia.

Finally, the use of the survey research design was viewed as consistent with previous studies which provided the conceptual and theoretical inspirations for the current study. The researcher

thought it prudent to ensure that the survey design adopted is consistent with the previous studies (e.g., Wong 2002; Zapalska et al. 2003; Co 2004; Dollar et al. 2005; amongst others).

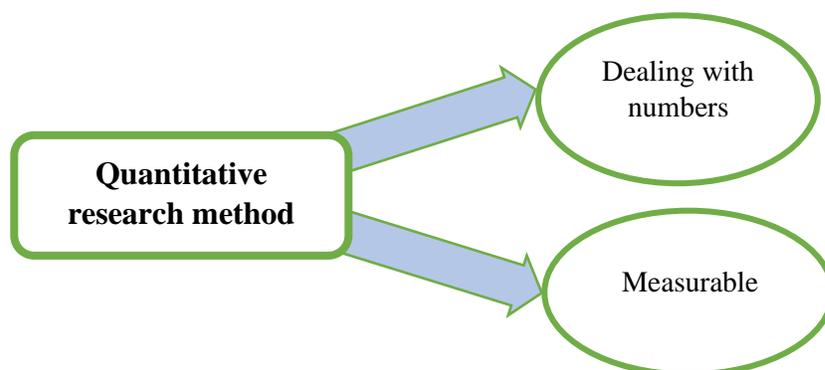
3.5 Research Methodology

3.5.1 Methods

While methodology tells us about the overall research approach under a paradigm, methods help us with the instruments used for the collection and analysis of data (Mackenzie & Knipe, 2006). According to Crotty (1998), Methods are the techniques and procedures used for the collection and analysis of data. The methods are free from philosophical assumptions and selected based on a research problem under study and the kind of sources from which data need to be collected (Grix, 2002).

The current study was carried out to address the research gap and answer the research questions on school manager accountability practices in financial and material resource utilisation and their implications on school performance. Thus, the research method was established from the research process formulated from the review of previous literature. To establish the research aims and objectives, a thorough literature review was conducted, including both primary and secondary sources, and due to the objective nature of this study, a quantitative method was adopted as a research method for this study. A pilot study was conducted and specific attention was given to identify and explore managerial accountability practices in financial and material resource utilisation with a view of highlighting the implications on school performance in selected public secondary schools. Quantitative research methods are research methods dealing with numbers and anything measurable in a systematic way of investigating of phenomena and their relationships (Figure 3.2). It is used to answer questions on relationships within measurable variables with the intention to explain, predict, and control a phenomenon (Leedy 1993).

Figure 3.2: Description of Quantitative Method



Source: Author, (2021)

An entire quantitative study usually ends with confirmation or disconfirmation of the hypothesis tested. Researchers using the quantitative method identify one or a few variables that they intend to use in their research work and proceed with data collection related to those variables. The quantitative method typically begins with data collection based on a hypothesis or theory and it is followed by the application of descriptive or inferential statistics. Surveys and observations are some examples that are widely used with statistical association. Quantitative is based on testing a theory, measuring with numbers, and analyzing using statistical techniques and it particularly emphasizes objectivity and reproducibility (Smith et al., 1979). Meanwhile, Fraenkel and Wallen (2003) argued that the goal of quantitative methods is to determine whether the predictive generalizations of a theory hold. Thus, quantitative research is more concerned with issues of how much, how well, or to whom that particular issue applies. Kerlinger and Lee (2000) explained that quantitative research is deductive and that researchers make inferences based on direct observations with the primary goal of describing cause and effect.

It is important to understand that methods are ‘the techniques or procedures used to gather and collect data related to research questions or hypothesis’ (Crotty, 2003: 3). Leedy & Ormrod (2001) and Williams (2011) describe research methodology as holistic steps a researcher employs in embarking on research work (p. 14). Therefore, a quantitative research method deals with quantifying and analyzing variables in order to get results. It involves the utilisation and analysis of numerical data by using specific statistical techniques to answer questions like who, how much, what, where, when, how many, and how. Amplifying on this definition, Aliaga, and Gunderson (2002) describe quantitative research methods as the explaining of an issue or phenomenon through the gathering of data in numerical form and analyzing it with the aid of mathematical methods; in particular statistics. Going by the above definition, it is deduced that the first thing a research tackles or deals with is explaining of an issue or explaining a given phenomenon.

The next feature in the above definition is that in quantitative research numeral data are collected and analyzed using statistical methods. On the other hand, Leedy & Ormrod (2001) and Williams (2011) explain that “quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute alternative knowledge claims” Furthermore, Williams (2011) remark that quantitative research starts with a statement of a problem, generating of hypothesis or research question, reviewing related literature, and quantitative analysis of data. Similarly, Creswell (2003) and Williams (2011) project quantitative research to “employ strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistical data” (p.18).

Accountability in education is concerned with figuring out issues about records techniques, procedures, and structures utilised, recording characterization and synopsis of exercises of occasions investigating and deciphering the recorded information, getting ready and giving reports and proclamations which reflect conditions starting at a given time. A quantitative method best fits this study which is objective by nature and needs objectivity in answering research questions. The quantitative method is commonly used to study events or levels of concurrence. Data is collected through a structured questionnaire asking questions starting with "how much" or "how many." Since quantitative data is numerical and this study requires correct and accurate answers to the research questions, this method fits well in the study because it represents both definitive and objective data. Furthermore, quantitative information is much sorted for statistical and mathematical analysis, making it possible to illustrate it in the form of charts and graphs (Aliaga & Gunderson, 2002).

3.5.2 The rationale for selecting a quantitative research method

The rationale for selecting the quantitative research method for this research was based on the topic at hand which is objective by nature. Prew, et al. (2011) indicated that the management capability at the school level is very weak and most school managers still lack both record-keeping skills and, financial and material resource management knowledge. This situation partly contributes to the lack of financial and material resource accountability by school managers in most public secondary schools. This statement revealed that a majority of school managers lack management skills to manage financial and material resources. They also have difficulties in planning and managing funds allocated to their schools and how to report on how funds have been used among other managerial challenges. Record keeping in most public secondary schools is very poor with a lot of misapplication of financial resources leading to audit quarries (Report of the Auditor General of the Republic of Zambia for the financial year ended 31st December 2020). Due to the nature of the topic at hand which is “school manager accountability practices in financial and material resource utilisation on school performance”, the quantitative research method was preferred because it is more scientific, objective, fast, focused, and widely acceptable.

3.5.3 Target Population

Mugenda and Mugenda (1999) define a target population as a complete set of individuals, cases, or objects with some observable characteristics. A population as Kombo and Tromp (2007) put it, "is a group of individuals, objects or items from which samples are taken for measurement. It is an entire group of persons or elements that have at least one thing in common (Kombo &

Tromp, 2006). Copperbelt province comprised One hundred thirteen (113) public secondary schools with a population of three hundred thirty-nine (339); This means one hundred thirteen (113) school managers, One hundred thirteen (113) accounts assistants, and one hundred thirteen (113) store officers with a target population of one hundred fifty (150) participants. The respondents of this study were drawn from fifty (50) public secondary schools. This logically means fifty (50) school managers, fifty (50) accounts assistants, and fifty (50) store officers from urban and peri-urban secondary schools and one (1) boarding secondary school in Copperbelt province.

3.5.4 Sampling Techniques

The purpose of the sampling techniques was to help select units to be included in the sample (e.g., 50 school managers). Broadly speaking, there were two groups of sampling techniques: probability sampling techniques and non-probability sampling techniques.

❖ Probability sampling techniques

Probability sampling techniques use random selection (i.e., probabilistic methods) to help in the selection of units from the sampling frame (i.e., similar or the same population) to be included in the sample. These procedures (i.e., probabilistic methods) are very clearly defined, making it easy to follow them. Since the characteristics of the sample researchers are interested in vary, different types of probability sampling techniques exist to help select the appropriate units to be included in the sample. These types of probability sampling techniques include simple random sampling, systematic random sampling, stratified random sampling, and clusters (Barreiro & Albandoz, 2001).

❖ Non-probability sampling techniques

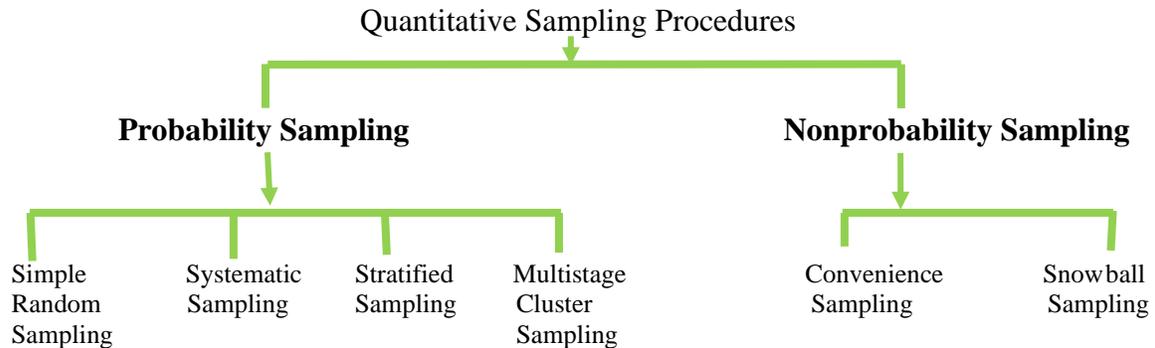
Non-probability sampling techniques refer to the subjective judgement of the researcher when selecting units from the population to be included in the sample. There are different types of non-probability sampling techniques and the procedures for selecting units to be included in the sample are very clearly defined, just like probability sampling techniques.

However, in others (e.g., purposive sampling), subjective judgement is required to select units from the population, which involves a combination of theory, experience, and insight from the research process, making selecting units more complicated. Non-probability techniques include; quota sampling, purposive sampling, convenience sampling snowball sampling, and self-section (Doherty, 1994)

Probability sampling is the selection of individuals from the population so that they are representative of the population.

Nonprobability sampling is the selection of participants because they are available, convenient, or represent some characteristic the investigator wants to study. Below is the quantitative sampling procedure.

Figure 3.3 Quantitative Sampling Procedures



Source: Gay (1992)

In this study, Simple random sampling was used because it is a probability sampling procedure that gives every element in the target population, and each possible sample of a given size, an equal chance of being selected. As such, it is an **Equal Probability Selection Method (EPSEM)**. Simple random sampling is the major strength required in this study. Notably, among its strengths, it tends to yield representative samples and allows the use of inferential statistics in analyzing the data collected. Simple random sampling has several strengths that were considered in choosing it as the type of probability sample design to be used in this study. Some of these include:

- Advanced auxiliary information on the elements in the population was not required. Such information was required for other probability sampling procedures, such as stratified sampling.
- Each selection was independent of other selections, and every possible combination of sampling units had an equal and independent chance of being selected. In systematic sampling, the chances of being selected are not independent of each other.
- It was generally easier than other probability sampling procedures (such as multistage cluster sampling) to understand and communicate with others.
- Statistical procedures required to analyze data and compute errors are easier than those required of other probability sampling procedures.

- Statistical procedures for computing inferential statistics are incorporated in most statistical software and described in most elementary statistics textbooks.

3.5.5 Sample Selection and Sampling Procedures

According to Gay (1992), sampling is described as a process of selecting a number of individuals for a study in such a way that the individuals represent the larger group from which it was selected and it was part of the population from which it was selected. Furthermore, Gay (1992) emphasizes that it is important for a researcher to select a sample because the goodness of the sample determines the generalizability of the results. A good sample is representative of the population from which it was drawn (Johnson & Christensen, 2012). Thus, based on the preferred research design and in order to select a sample that represented the target population, this study used both probability and non-probability procedures. Creswell and Clark (2007) observe that these techniques use results from one method to enhance, elaborate, or illustrate results from the other. Creswell (2014) recommends a random sample since each individual in the population has an equal probability of being selected. With randomization, representative sample from a population provides the ability to generalise to a population. The sample was selected from one hundred thirteen (113) public secondary schools in the Copperbelt province in Zambia. Therefore, the participants who were sampled from each school had an equal and independent chance to be selected because random sampling was used and controlled selection bias (Patton, 2002).

3.5.6 Sample Size and Organisation

Kothari (2011) stated that sample size refers to the number of items to be selected from the universe. The study sample for the current research consisted of one hundred fifty (150) respondents out of 339 population size: Fifty (50) school managers from fifty (50) selected public secondary schools out of hundred thirteen (113) public secondary schools in Copperbelt province. Fifty (50) account assistants and fifty (50) store officers from selected schools. The sample size was determined by Cronbach's Alpha Test value of 150 which is within $\pm 5\%$ ($0.95 = 1.96$) of the surveyed value.

$$n = \frac{Z^2 X P (1 - P)}{E}$$

Where: **Z** is the Z score,

E is the Margin of error,

n is the population size

P is the population proportion.

Table 3.1 Cronbach's alpha Sample size determination

Factors	Factors description	Value
Population Size (No.)	The total population that the sample will represent	339
Confidence Level (%)	The probability that the sample accurately represents the characteristics of the sample	95%
Margin of error (%)	The range that the population's responses may deviate from the sample	5%
Population proportion (%)	The proportion of the sampled population	77.5%

Source; Author (2022)

3.5.6.1 Schools

The researcher adopted the random sampling technique to select schools based on the number of years of experience of the school manager, performance, and location of the school because it was the best technique and unbiased method. It is the best process for selecting a representative sample. The researcher targeted fifty (50) public secondary schools out of one hundred and thirteen (113) secondary schools in the Copperbelt province with at least five (5) from rural districts of the Copperbelt province and one (1) boarding secondary school within the province. The Copperbelt province has one hundred and thirteen (113) Secondary Schools.

3.5.6.2 School managers

The selection of school managers was based on the selected secondary schools. In this case, all fifty (50) school managers were purposively selected. The school managers are selected for this study because they are the key implementers and managers of financial and material resources at the school level. For this reason, they are best placed to provide insights into the state of accountability in public secondary schools.

3.5.6.3 Accounts Assistants and Stores officers

A purposive selection technique was used in the selection of accounts assistants and store officers based on the selected secondary schools. In this case, fifty (50) accounts assistants and fifty (50) store officers were selected for the study. The accounts assistants and store officers were selected for this study because they are key in the collection and storage of school resources such as funds and materials bought by the school and how they are used. They are best placed to provide insights into the lack of accountability of financial and material resources in public secondary schools.

3.6 Data collection

Upon identifying the research methodology, research design, and sampling design, as proposed by Leedy & Ormrod (2005), and Cavana *et al.* (2001), data collection was then planned for the quantitative study. The quantifiable information or data that was set for collection and planned for analysis using descriptive statistical analysis.

3.6.1 Data Collection Method

The data collection method entails the approach that the researcher takes to collect data that is to be used in the study. Primary data was collected using questionnaires designed by the researcher. The questionnaires were used because they enabled the researcher to collect information more easily and within a reasonable time (Kombo et al, 2006). They also provided a high level of privacy to the respondent and hence highly recommended. Three (3) sets of structured questionnaires were designed; the first set was for school managers, the second set was for accounts assistants, and the third set was for store officers.

All the questionnaires were developed based on literature surveys and further enhanced by employing the outcomes, suggestions, and comments from the pilot study which was conducted, and guidance from my supervisor. The main objective was to determine and examine school manager accountability practices in financial and material resource utilisation and their implications on performance in public secondary schools.

The researcher personally visited all the selected secondary schools in Copperbelt province and questionnaires were distributed and administered to the school managers, Accounts assistants, and Store officers. Before the participants could start responding to the survey questions, the researcher gave a brief introduction that covered the purpose of the study and clearly explained the confidentiality of the data, the need for the respondents to provide a candid response, names not being captured in the questionnaire, etc. They were also requested to provide answers to all the questions and informed that their responses would not be useful for analysis if they failed to answer even just one question. After the respondents completed the survey, their filled-in responses were collected. Data was also collected through document review.

According to Ayob (2005); Rani (2004) and Sekaran (2000), the researcher must specifically set up respondents for the research – individuals, groups, and a panel of respondents whose opinions may be sought on specific issues. Questionnaires and document reviews were the main data

collection methods used in this survey research. Quantitative data collection methods rely on random sampling and structured data collection instruments that fit diverse experiences into predetermined response categories. They produce results that are easy to summarize, compare, and generalize.

3.6.1.1 Sources of Data

In this study, both primary and secondary sources of data were used to gather the needed information.

3.6.1.1.1 Primary data

Primary data for this study was collected from school managers, accounts assistants, and store officers through questionnaires. These participants were selected purposively because they directly or indirectly participate in the acquisition and utilisation of financial and material resources in one way or the other.

3.6.1.1.2 Secondary Data

Secondary data was obtained from documents like financial records (cash book, receipt books, payment vouchers, etc.), stock books, store requisition, and goods received the voucher (GRV) for materials received. Minutes from finance meetings and inventory reports were also used. In this regard, all the documents related to the areas of study such as monitoring reports, from the standard officer, finance Committee minutes, procurement plan, school annual budget, and examination analysis reports were checked and analyzed in all the selected secondary schools to support and consolidate the data that were gathered from primary sources. These were considered necessary as they helped in securing clear and detailed information that may have been left out in the questionnaires.

3.6.2 Data collection instruments

Data was collected with the aid of questionnaires and document analysis. This helped the researcher to evaluate the school managers, accounts assistants, and store officers' knowledge and practices in financial and material resource accountability.

3.6.2.1 Questionnaire Survey

Questionnaires were developed and numbered by the researcher to gather the data required to generate answers to the research problems. A questionnaire is used when factual information and opinions are required with the use of an attitude scale to gather data from a population sample (Best and Kahn, 2005). According to Robson (2002), survey questions are designed to enable the

achievement of research goals and specifically to answer the research questions. The use of the questionnaire enabled the respondents to provide honest answers since they were not required to indicate their names. All the “ questionnaires had a short introduction that explained the purpose of the research. There was one set of questionnaires for each group as follows; one for School Managers, one for Accounts assistants, and one for the store officers. The questionnaires contained both closed and open-ended questions and were divided into parts as follows; Part - 1 seeks demographic information of the respondents. Parts 2, 3. 6 to 7 seek information on various areas concerned with school resource accountability such as effectiveness in managing financial and material, resources in secondary schools. Likert scale was used as follows: Strongly agree = 5 Agree = 4 Neutral = 3 Disagree = 2 Strongly Disagree =1

3.6.2.2 Document Review

In this study, a document analysis guide was carried out in all the sampled schools. The documents that were envisaged to be analyzed include; PTA Annual General meeting copies of amounts of money raised for projects, minutes of finance committee meetings, and the school annual budgets. The Government Republic of Zambia (GRZ) receipts books and bank statements for the period under review, cash books payment vouchers, requisition books, stock books, goods received vouchers, Bin cards available, etc. Document review is a process used to collect data after reviewing the existing documents.

It is an efficient and effective way of gathering data as documents are manageable and are a practical resource for getting qualified data from the past. Apart from strengthening and supporting the research by providing supplementary research data, document review has emerged as one of the best methods for gathering quantitative research data. The researcher also checked the accountable documents being used in schools. It was important to look at the documents to see if the schools were following the Procumbent Act of 2011. Three primary document types were analyzed for collecting supporting quantitative research data. Namely:

1. Public records/documents
2. Personal documents
3. Physical evidence

Public Records; under document review, official, ongoing records of an organisation were analyzed for further research. For example, annual reports, policy manuals, stock books, goods

received vouchers, store requisitions, deposit slips, receipt books, and cash books. **Personal Documents** were not considered in this study though **Physical Evidence** of the organisation was looked at.

3.7 Pilot Study

A pilot study is an element of work undertaken as part of a larger project or programme to improve understanding of the product being delivered and to reduce the risk of uncertainty. In short, a pilot study is a mini-version of a full-scale study or a trial run done in preparation for the complete study (Blaxter, Hughes & Tight, 1996). It is from the above understanding that a pilot study was conducted with a view of attaining a high level of relevance and reliability. The participating public secondary schools were labeled 1,2,3,4,5,6, up to 50, in order to conceal their identity. These schools were picked using simple random sampling.

3.7.1 Pilot Testing of Research Instruments

The researcher carried out a pilot study in three (3) public secondary schools which are not included in the final study population. The researcher composed three types of questionnaires. One for the school manager, one for the accounts assistant, and one for the store officer which was used to collect data. A pilot study had several functions, principally to increase the reliability and practicability of the questionnaire/instrument (Cohen, Manion & Morrisson, 2007).

The questionnaire was pilot tested and the researcher used the piloted data to determine the reliability of the research instrument. It helped the researcher to identify the language problems, and typographical errors such as spellings, etc. Piloting also helped the researcher to check whether the wording of the questions was clear to the respondents. Piloting, therefore, helped the researcher to make necessary adjustments to the questionnaire thereby improving the reliability of the instrument.

Three (3) public secondary schools and nine (9) participants were targeted as recommended by Johnson and Christensen (2012) who pointed out that “A pilot test be conducted with a minimum of 5 to 10 people” (p. 183). The instrument was pilot-tested in three (3) public secondary schools that are similar to the real survey sample. The researcher was able to distribute the questionnaires as shown in Table 3.2 below:

Table 3.2: Participants in the pilot study

Position	No.	Responsibility	Comments/Action
School manager	3	<ul style="list-style-type: none"> To manage the administrative and academic programs in the school and facilitate the delivery of quality education. Also, to manage effectively financial and material resources to facilitate the achievement of the set objectives 	A questionnaire was administered 3 School managers
Accounts Assistant	3	<ul style="list-style-type: none"> To undertake receipting, payments, and maintenance of records to facilitate accountability and efficient storage and retrieval of financial information. Also, to maintain accurate and timely up-to-date banking records to facilitate efficient storage and retrieval of information 	Questionnaire was administered
Stores officer	3	<ul style="list-style-type: none"> Receives all items that come in school either procured or donated and issues a Goods Received Voucher (GRV) to acknowledge receipt of the goods received and take regular stocktaking. 	The questionnaire was administered and a checklist used
Total	9		

Source: Author (2022)

By the cut-off date, nine (9) survey instruments were collected. As a result, the response rate of the pilot study was 100%. The pilot test revealed that on average, respondents took about 15 to 20 minutes to complete the survey instrument. The pre-tests were also conducted to establish the questionnaire's content validity. All the items in the instrument were reviewed by my supervisor, especially their content, scope, and purpose. My supervisor commented, advised, and guided on various aspects of the survey design such as the clarity or ambiguity of definitions, item representativeness, appropriateness of the scale, and clarity of instructions. The researcher was advised to:

1. Rephrase some questions so that they flow like in a conversation;
2. Include biodata of the participants;
3. Go back and fill in the gaps in the data that answer the study questions;
4. Add detailed data from observations and documentary analysis.
5. Ensure that statements are rearranged according to objectives and research questions
6. Incorporate the policy document “Educating Our Future” 's principles on accountability to strengthen the instrument on how accountability has impacted education in Zambia.
7. Also, incorporate material resource economical usage and;
8. Ensure alignment, formatting, and font are appropriately adjusted to be more aesthetic and appealing.

3.7.2 Lessons learned from the pilot for the main study

The pilot study revealed that the conceptual framework, as it stood at that point in the development of the thesis, was an effective tool for organising the various factors that influenced the accountability activities of school managers. However, the interconnectedness of the various elements led to a degree of repetition in the gathering and analysis of data. As a result, the main study continued to employ the conceptual framework (although modified as more literature was read) but the study focused more on school manager accountability practices and performance in public secondary schools.

The questionnaire was designed with statements exploring school manager accountability practices in financial and material resource utilisation and their implications on school performance in selected public secondary schools in Copperbelt province of Zambia with a view of establishing the kind of relationship existing between managerial accountability and school performance.

3.7.3 Conclusions of the pilot study

The pilot study, therefore, fulfilled an important part of the preparation for the main study, as it identified research areas on which to focus, and some of the issues with the methods adopted. This was instrumental in directing the main study.

3.8 Reliability and Validity of the research instrument

The developed research instrument for the survey research was subjected to validation and reliability testing prior to the formal conduct of the survey. This was to ensure that only appropriate and quality data were collected to find plausible answers to the research questions.

3.8.1 Reliability of the Research Instrument

Reliability of the instrument refers to the degree to which a particular technique applied repeatedly to the same object yields the same results each time (Babbie, 2010). A reliable instrument for a piece of research will yield similar data from similar respondents over time. An instrument is reliable if it yields similar results over time (McMillan & Schumacher, 2001). The research used internal consistency as this reliability type was estimated by giving one form of a test once.

The researcher administered the questionnaire to three (3) School managers, Three (3) Accounts Assistants, and three (3) store officers from three (3) public secondary schools in Copperbelt

province during pilot testing. The data collected was subjected to reliability tests using Cronbach's alpha which was determined by using Cronbach's basic equation for alpha (Mohsen & Dennik, 2011) as follows:

$$\alpha = (n/n-1) (1-(\sum V_i)/V \text{ test})) \text{ where}$$

- n = number of questions
- V_i = variance of scores on each question
- V-test = total variance of overall scores (not %'s) on the entire test

It is important to note that this was applied specifically to the parts in the instrument that had Likert scale items. However, Nunnally (1978) in Kerlinger (2000) stated that a satisfactory level of reliability is dependent upon how the measure is used. In some cases, a reliability value of 0.5 or 0.6 is acceptable. The three instruments had a validity that falls within acceptable limits in the original reliability analysis table of Cronbach's alpha. To ensure the reliability of the data collected, three Secondary Schools were subjected to a test re-test exercise. The choice of the schools was informed by the fact that the three public secondary schools represented both urban and rural schools in Copperbelt province of Zambia which had experienced rapid improvements in performance over the last few years and one which had virtually stagnated over a long period of time which provided a contrasting view.

The schools were visited after a month and the same questionnaires were administered and a correlation coefficient of the results was calculated. The correlation coefficient of different items in the questionnaires averaged 0.85 which meant that the responses were within a reliable range.

3.8.2 Validity of Research Instruments

Validity is the extent to which a measuring instrument measures what it claims to measure. It is whether an instrument measures the traits, characteristics, quality, or whatever for which it is intended to measure (Singh, 2012). In addition, Mugenda (2008) pointed out that researchers define validity as the accuracy, truthfulness, and meaningfulness of inferences that are based on the data obtained from the use of a tool or a scale for construct or variable in the study (p. 256). Mugenda identified and described three main types of validity or techniques for validating a study, namely: Criterion-related validity, content validity, and construct validity. Criterion-rated validity refers to the relationship between an instrument and some other criterion. Two types of criterion-related validity are recognized, predictive and concurrent. Whereas predictive validity is the extent to which data can predict the behaviour of the subject not in the future but at present.

Content validity is the extent to which data gathered using a particular instrument represents time and a specific domain of content or indicators of a particular concept. There are other types of validity or techniques for validating a study. Johnson and Christensen (2012) discussed internal validity, external validity, population validity, ecological validity, temporal validity, outcome validity, and statistical conclusion validity, among others. Of great importance to the current study was the content validity. This was used to assess the validity of questionnaires, in order to ensure the content of each part of the questionnaire generates valid data that when analyzed, answers the research questions. In this study, the researcher used content validity for questionnaires and document analysis guides. Content validity permitted the researcher to determine the content as well as the amount of data the instrument generated from the respondents. Furthermore, in this study, the validation of quantitative data showed the importance of content validity.

According to Creswell and Clark (2007), researchers apply validation of the quantitative approach when they need to validate and expand the findings from a survey by incorporating judgment from experts to determine the validity of the measuring instruments. Mugenda (2008) maintained that a judgmental procedure of determining whether an instrument is likely to yield content-valid data is to request professionals or experts in a particular field to review it and provide recommendations. Therefore, the researcher requested, two external experts in educational research and my supervisor to examine the items in the questionnaires to ascertain content validity. My supervisor and external experts rated each item in the instrument and either adjusted or included more information where necessary. They indicated their comments on a validation Form for Data collection. The constructive feedback and responses received were then used to improve the content of the instruments before they were finally administered to the respondents.

3.9 Data Analysis.

Data analysis is the process of inspecting, cleaning, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision-making. Sekaram, (2003) noted that establishing the goodness of data lends credibility to all subsequent analyses and findings because it measures the reliability and the validity of the measures used in the study. After gathering data from the questionnaire schedules, an SPSS (SPSS, Version 26) database was created into which the data was entered and checked adequately for reliability, accuracy, and clarity. The software packages used enabled the researcher to present the data in

percentages, means, and standard deviations. The results were then presented in the form of frequency tables and pie charts. The data was then analysed using regression analysis to test the research hypotheses.

According to Martin and Acuna (2002) and Orodho (2009), the SPSS program is able to handle huge amounts of data and it has a wide spectrum of statistical procedures that are designed for social sciences. The data were coded and entered into the SPSS program to help in generating descriptive statistical data from responses. Descriptive statistical analysis was used to analyze the data collected and regression analysis was then employed to generate statistical tables. Results were generated and presented in the form of tables. These were later interpreted, analyzed, and discussed for easy understanding. Descriptive statistics were generated to examine the normality of the distribution of data.

3.9.1 Analysis of Quantitative Data

The first step in quantitative data analysis was to describe or summarise the data using descriptive statistics (Nachmias & Nachmias, 2003). Data analysis was carried out using frequencies, percentages, and averages for quantitative data. The researcher used Statistical software including SPSS v.26, to code data and conducted statistical result analysis in relation to research objectives. Quantitative data was coded and converted into numerical codes; 1, 2,3,4, and 5 which represent various variables in the Likert Scale. Each statement had a scale of five numbers [5] [4] [3] [2] [1]. In relation to 5 = Strongly Agree, 4 = Agree, 3 = somewhat agree, 2 = Not sure, 1 = Disagree. The researcher then entered the numbers representing the various categories into the computer and analyzed them using the SPSS package and SmartPLS.

3.10 Ethical considerations

The study was based on established ethical considerations and was carried out in an ethical manner relating to both practical and moral issues around the study. Ethical concerns were considered at various stages in the research process including planning data collection, writing the report, and disseminating the findings. The study adopted the acceptable research ethical issues as articulated in the literature (Creswell, 2014; Mugenda, 2011; Johnson & Christensen, 2008). Research problems are real and researchable to the extent that they come to completion. The study was guided by the following ethical and logistical considerations:

- i) An introduction letter was obtained from the University of Zambia (Appendix I)
- ii) A permit from the Ministry of Education was obtained from the Provincial Education Officer's office (Appendix II).

- iii) Authority was obtained from the District Education Board Secretary's offices in all the ten (10) districts of the Copperbelt Province.
- iv) A good rapport was maintained between the researcher and the respondents.
- v) Information given by the respondents was treated as privately and confidentially as possible
- vi) No informant was forced to participate in the study.
- vii) The informed consent was actualized based on any foreseen risks, a guarantee of anonymity, confidentiality, and identification of the researcher as recommended by Creswell and Clark (2007).
- viii) The aspect of confidentiality was adhered to, and the names of the participants and participating institutions were not disclosed in any way in this study.
- ix) Privacy and confidentiality refer to the unwanted disclosure of information about the participants which may potentially compromise them in some way (Cohen, 2007).
- x) No discrimination of participants based on sex, race, ethnicity, or other factors related to their scientific competence and integrity (McMillan, 2006).
- xi) The researcher acknowledged all the sources that have been used in the research exercise to (avoid plagiarism) be honest in reporting, and strictly adhere to the American Psychological Association (APA) manual, sixth edition.
- xii) Materials from different books, journal articles, magazines, and empirical studies were cited properly and direct quotes were acknowledged (Creswell, 2014).
- xiii) Application of ethical concerns was required in the document or content analysis.

According to Robson (2002), the researcher needs to seek permission to obtain and use official documents that belong to the institutions and offices in which the study was being conducted. That was done and the researcher stated the purpose of the document analysis and pledged to preserve the documents and the confidential contents of the information.

3.11 Summary of the Chapter

This chapter has provided a detailed overview of the research design and sources of data are also highlighted together with the methods for data collection and analysis. It has also explored the methodological underpinnings of the study, detailing the research philosophies and Paradigms, ontology and epistemology, paradigms, rationale, theoretical Perspective, and research approach. Chapter four presents the data presentation and analysis.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The previous chapter outlined and highlighted the research methodology. It also highlighted the importance of the pilot study as an indispensable process for developing a reliable survey instrument which helped to ascertain its suitability in the actual field condition (Singh, 2007) for the achievement of set objectives and research questions of this study.

This chapter presents data management and analytical processes involved in generating empirical evidence by testing the hypothesis. The chapter deals also with the procedures and processes used in preparing and cleaning the data from the survey, assessing biases and missing values, and examining the normality of the distribution of data. The statistical analyses were performed using SPSS v 26 (SPSS, 2015) which was the main software used in data processing, SmartPLS 3.3.7 (Ringle, 2015) was also used when SPSS could not process the required statistical tests.

4.2 Data Preparation

4.2.1 Retrieval of Questionnaire.

The researcher scanned and double-checked each of the questionnaires upon retrieval from the respondents. If there were unanswered or blank items, the researcher consulted/referred back to the respondents. Most of the time, the unanswered/blank items were attributed to respondents having unintentionally misplaced them. Subsequently, the respondents provided their answers when the researcher referred back to the blank items to them. This, however, did not apply to part five (5) on managerial accountability and school performance (relationship of accountability and school performance).

4.2.2 Data Encoding and Screening.

The researcher coded and entered the raw data into a database using SPSS version 26 (SPSS, 2015). The entries were double-checked for errors by a different person to ensure the accuracy of the data entry. Corrections were made when necessary to rectify any discrepancies. It was planned that retrieved questionnaires with the following characteristics were to be excluded outright: randomly and sporadically filled out the first few pages only (more than 50% to 90% of items were left unanswered). Hair et al (2006) recommended that “cases with missing data on the dependent variable/s be excluded to avoid any artificial increase in relationships with the

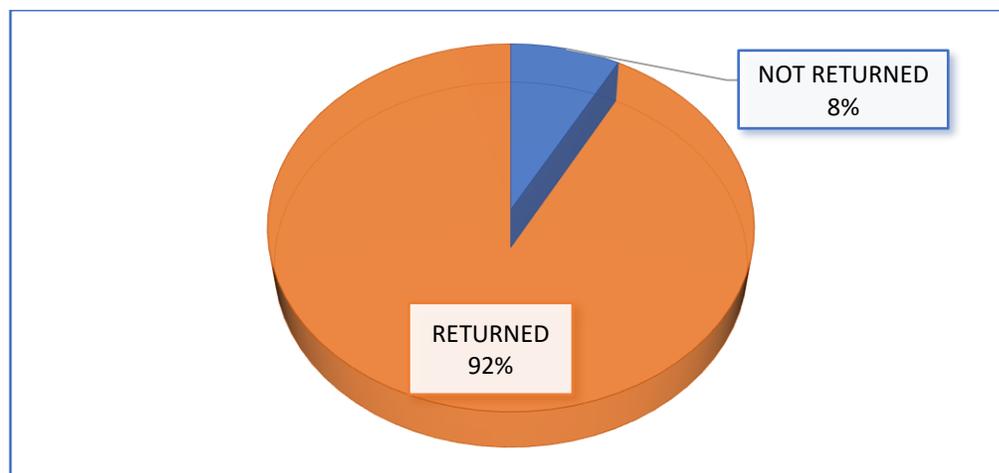
independent variables of the study”. However, no questionnaire was excluded because they all met the benchmarks.

4.3 Response Rate

The study distributed one hundred and fifty questionnaires to fifty (50) randomly selected public secondary schools in the Copperbelt province of Zambia. The questionnaires were segmented as follows; fifty (50) School Managers, fifty (50) Accounts Assistants, and fifty (50) store officers. Three questionnaires were distributed at each of the fifty secondary schools that were selected to take part in the study across the province. Most of the respondents requested the researcher to give them time to respond to the questionnaire considering that it would have taken them some time to complete. In view of this, the researcher had to leave the questionnaires and only collected them after ten to fifteen (10 - 15) days in most instances.

However, there were a few respondents who quickly completed their questionnaires within a short time as the researcher waited on them. Out of the one hundred and fifty (150) questionnaires distributed, only one hundred and thirty-eight (138) were collected translating into a 92% response rate. The twelve (12) (8%) that were not collected were either misplaced or had been left at home by the respondents. These respondents made promises and requested for the researcher to go back another day but mostly those never came to fruition as other things now come into the picture like respondents not being found at their workplaces while some confessed that they had misplaced the Questionnaire. Despite all this, however, the response rate of 92% was not bad and the researcher decided to go ahead with the data presentation and analysis. Figure 4.1 below shows the response rate.

Figure 4.1: Response Rate



Source: Author, (2022)

4.4 School manager demographic information

Demographic information was sought to obtain general information from the respondents on their gender, length of service, age, and level of academic and professional qualifications. It is important to note that the data presented in this section of the study was obtained from the completed questionnaires from school managers, accounts assistants, and store officers in selected sampled public secondary schools in Copperbelt Province of Zambia.

4.4.1 Gender of respondents (School Managers)

Table 4.1: represents the gender distribution of school managers in public secondary schools that participated in the study in the Copperbelt Province of Zambia.

Table 4.1: School Managers by Gender (Male /Female)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	30	65.2	65.2	65.2
	Female	16	34.8	34.8	100.0
	Total	46	100.0	100.0	

Source: Author, (2022)

Table 4.1, statistical data established that the gender of school managers who participated in the study was skewed in favour of males with 30 (65.2%) and 16 (34.8%) females. While there are more female teachers than males in schools, there are more males in public secondary schools' headship than females. In agreement with these findings on the number of women, Hechanova et al (2006) observed that despite the progress made by women in the workplace, disparities still exist in school management positions where women are underrepresented. But statistics from the sampled schools show that, out of the 16 (34.8%) sampled female school managers, 14 (87.5%) were compliant with laid down accountability procedures in the utilisation of financial and material resources, and their practices were in conformity with the set accountability practices.

According to the information gathered 2 (12.5%) had challenges following laid down procedures in the procurement of educational materials and utilisation of financial resources. Statistics also revealed that out of the 30 (65.2%) male school managers, 25(83.3%) had shown high compliance levels to financial procedural practices and material resource utilisation while 5 (56.7%) did not. Cumulatively, 39 (84.8%) of the school managers sampled showed high compliance levels to financial procedural practices and material resource utilisation while 7 (15.2) did not. This shows that gender has no effect on accountability.

4.4.2 Age distribution of respondents

Table 4.2: represents the age of school managers in sampled public secondary schools who participated in the study in Copperbelt Province of Zambia.

Table 4.2: Age group of respondents

	Age group	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31-35 Years	6	13.0	13.0	13.0
	36-40 Years	9	19.6	19.6	32.6
	41-45 Years	9	19.6	19.6	52.2
	< 46 Years	22	47.8	47.8	100.0
	Total	46	100.0	100.0	

Source: Author, (2022)

The researcher was mindful that some people are sensitive to disclosing their age hence the questionnaire requested that respondents provide the age group they belong to. The study findings indicated that 22 (47.8%) of the respondents were above the age of 46 and 9 (19.6%) were between the ages of 41 and 45 respectively. Further, 9 (19.6%) indicated that they were in the age group of 36 to 40, and 6 (13.0%) indicated that they were between the age of 31 and 35 years respectively. This shows that most of the school managers are above the age of 45. The statistical data from the sampled respondents show that out of 22 (47.8%) school managers who were above 46 years, 19 (86%) had shown very high economic accountability on the usage of water, stationary, and electricity.

Responses also showed that 22 (47.8%) check and ensure that all education materials purchased or donated are entered in the stock book and labeled by the store's officer before use/ distribution to departments and showed very high compliance levels to laid down procedures. High levels of accountability in the utilisation of financial and material resources were also exhibited by school managers above the age of 46 years. Statistics had also shown that school managers in the age group of 31-35, 6 (13%) had shown low compliance levels to laid down procedures, and low accountability levels in the utilisation of financial and material resources were also exhibited. This shows that somehow, age has an effect on accountability.

4.4.3 School managers' professional qualifications

The findings from the study on professional qualifications revealed that 41 respondents, representing 89.1% hold Bachelor's Degrees in Education whilst four (4) (8.7%) indicated that they hold Master's degrees in different fields. Interestingly, one (1) respondent representing 2.2% indicated that he holds a Ph.D. qualification. Table 4.3 below shows these results.

Table 4.3: Highest Professional Qualifications for School Managers

	Qualification	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BA/BSC/B.Ed.	41	89.1	89.1	89.1
	Master Degree	4	8.7	8.7	97.8
	Ph.D.	1	2.2	2.2	100.0
	Total	46	100.0	100.0	

Source: Author, (2022)

In Zambia, a Bachelor's degree in education or Master's degree holder is supposed to head a secondary school (MoE, 2008). This is also in line with Maliwatu's (2011) case study on In-service training for school managers and its effects on their leadership practices. Statistical data had shown that the school manager with a Ph.D. was more compliant with laid down procedures and was good at record keeping in resources utilisation followed by master's degree holders. This shows that professional qualifications or level of education affect accountability.

4.4.4 Years Served as School manager (Experience as School Manager)

The school managers were asked to indicate their administrative experience. Table 4.4: Shows the administrative experience of school managers in public secondary schools that participated in the study in the Copperbelt Province of Zambia

Table 4.4: Number of years served as a school manager

	Item	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 Years	20	43.5	43.5	43.5
	6-10 Years	18	39.1	39.1	82.6
	11- 15 Years	8	17.4	17.4	100.0
	Total	46	100.0	100.0	

Source: Author, (2022)

School managers were asked to indicate the number of years they have served as school managers. The number of years school managers have served was grouped into four categories, i.e., those that have served between 1 to 5 years, 6 to 10 years, and 11 to 15 years. The findings on the administrative experience of school managers revealed that 20 (43.5%) had served as school managers for a period between 1 - 5 years. 18 (39.1%) have served between 6 – 10 years and 8 (17.4%) have served between 11 - 15 years.

The findings revealed that 20 (43.5%) of the school managers in public secondary schools in Copperbelt Province do not have much administrative experience in the running of secondary schools. The data led to a conclusion that 26 (56.5 %) of the sampled school managers had a

better understanding of financial and material resource accountability and the responses obtained from these respondents helped in receiving more persuasive information that helped the study to come up with convincing and tangible conclusions that experience has an effect on accountability.

4.4.5 School managers' Years served at the current station

The school managers were asked to indicate the number of years of service as a head teacher/ school manager at the current station. Table 4.5: Years of service as school manager at the current station

Table 4.5: Number of years served as school manager at the current station

	Years Served	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 Years	22	47.8	47.8	47.8
	6-10 Years	16	34.8	34.8	82.6
	11-15 Years	8	17.4	17.4	100.0
	Total	46	100.0	100.0	

Source: Author, (2022)

The data on the number of years served as school managers at the current station revealed that 22 (47.8%) have served as school managers for a period of 1- 5 years at the current school and 16 (34.8%) have served as school manager at the current station for a period between 6 to 10 years and 8 (17.4%) school managers have served at the current station between 11 to 15 years. The researcher concluded that the number of years served as school manager at the current station has no effect on accountability.

4.5 Analysis of descriptive statistics for quantitative variables

This section shows variables as well as statistics from the data collected on each of the variables. Before an analysis of descriptive statistics for Quantitative variables, a reverse scoring was conducted because the questionnaire contained some positively worded questions and also some negatively worded questions.

To ensure that all items are consistent with each other in terms of what an agreement or disagreement means for the attribute being measured, a reverse score was done to all the items that were “negatively phrased”, so that all variables are consistent. The aim of reverse scoring was to re-code the responses so that a high score is transformed into the corresponding low score on the scale.

4.5.1 School manager accountability practices and procedures in the acquisition and utilisation of financial and material resources

4.5.1.1 Acquisition of financial resources

Table 4.6 shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under acquisition of financial resources. The mean ranged from 1.04 to 4.87, the standard deviation ranged from 0.206 to 1.766. Skewness ranged from -2.269 to 4.630 while Kurtosis ranged from -0.379 to 20.315. The skewness and kurtosis of the three items were not within the range of -2 and 2. The analysis indicated that three variables –1.703, -0.397, and -1.662 were within the range of -2 and 2. These variables did not deviate from normality with reference to the research. This means that data is distributed in a way that is consistent with a normal distribution, while the other three (3) variables that they acquire financial resources through school, Civilian day, and sale of uniforms whose kurtosis shot up to 3.291, 20.315 and 20.315 and seriously deviated from normality fees.

Table 4.6: Acquisition of financial resources

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
You acquire financial resources in school through:					
a) School Fees	46	4.87	.341	-2.269	3.291
c) Tuck Shop	46	3.24	1.766	-.330	-1.703
d) Hall Hire	46	1.85	1.460	1.216	-.379
e) Production Unit	46	2.50	1.735	.454	-1.662
f) Civilian Day	46	1.04	.206	4.630	20.315
g). Sale of Uniforms	46	1.04	.206	4.630	20.315
Valid N (list-wise)	46				

Source: Author, (2022)

4.5.1.1.1 Acquisition of financial resources

- a) Acquisition of financial resources through levying of School Fees:* The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.87. This shows that of the sampled respondents 40 (87%) strongly agreed and 6 (13%) agreed that they acquired financial resources for the school through levying of School Fees.
- b) Acquisition of financial resources through the tuck shop:* The statistics from the data on this variable were also slightly above 3 as reflected by the mean score of 3.24. This shows that of the sampled respondents 18 (39.1%) strongly agreed, 7 (15.2%) agreed, 5 (10.9%) somewhat agreed and 16 (34.8%) disagreed that they acquire financial resources in school through fundraising activities such as the Tuck shop.

- c) *Acquisition of financial resources through Room/Hall hire*: The statistics from the data on this variable were below 2 as reflected by the mean score of 1.85. This shows that of the sampled respondents 3 (6.5%) strongly agreed, 9 (19.6%) agreed and 34 (73.9%) disagreed that they acquire financial resources in school through Room/Hall hire.
- d) *Acquisition of financial resources through production Unit*: The statistics from the data on this variable were below 3 as reflected by the mean score of 2.50. This shows that of the sampled respondents 10 (21.7%) strongly agreed, 8 (17.4%) agreed, 1 (2.2%) somewhat agreed, 3 (6.5%) were not sure and 24 (52.2%) disagreed that they acquire financial resources in school through fundraising activities such as production Unit.
- e) *Acquisition of financial resources through Civilian/Career's Day*: The statistics from the data on this variable were below 2 as reflected by the mean score of 1.04. This shows that of the sampled respondents 2 (4.3%) were not sure and 44 (95.7) disagreed that they acquire financial resources through Civilian/Career's Day.
- f) *Acquisition of financial resources through the sale of Uniforms*: The statistics in the data on this variable were also below 2 as reflected by the mean score of 1.04. This shows that of the sampled respondents 2 (4.3%) were not sure and 44 (95.7) disagreed that they acquire financial resources through the sale of school uniforms.

Table 4.6.1 cumulative variable on the Acquisition of financial resources

ITEM	Strongly Agree	Agree	Somewhat Agree	Not Sure	Disagree	Total
School fees	40	6	0	0	0	46
Tuck shop	18	7	5	0	16	46
Room/hall hire	3	9	0	0	34	46
Production Unit	10	8	1	3	24	46
Civilian/Careers' Day	0	0	0	2	44	46
Sale of Uniforms	0	0	0	2	44	46
FREQUENCY	71	30	6	7	162	276
PERCENTAGE	25.72%	10.86%	2.17%	2.53%	58.72%	100%

Source: Author, (2022)

The cumulative statistics on the acquisition of financial resources show that 46 (100%) acquire financial resources through school fees, 30 (65%) acquire additional funds through Tuckshop sales, and 16 (15%) do not. 12 (26%) acquire additional financial resources through Room /Hall hire and 34 (74%) do not. 19 (41%) acquire financial resources through production unit and 27 (59%) do not. 46 (100%) of the sampled school managers disagreed with acquiring additional

financial resources through the sale of school uniforms and civilian/career days. This means that schools mainly acquire financial resources through school fees, Tuck shop sales, room/hall hire, and production unit. These are the four known sources of funds in public secondary schools sampled. Statistics revealed that schools do not acquire additional financial resources through the sale of school uniforms or civilian /career day activities. This shows high compliance levels with the Government directive for schools not to acquire additional financial resources through the sale of school uniforms or the so-called civilian/ careers day.

4.5.1.2 Utilization of financial resources

Table 4.7 shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under utilisation of financial resources. The mean ranged from 2.15 to 4.20 and the standard deviation ranged from 1.326 to 1.891. Skewness ranged from -1.581 to 1.155 and Kurtosis ranged from -1.924 to 1.195. This, therefore, shows that the skewness and kurtosis of all the variables were within the range of -2 and 2. The results indicated that none of the variables deviate from normality.

Table 4.7: Utilisation of Financial Resources (Descriptive Statistics)

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
You always use fundraised funds by following the procedures	46	4.20	1.344	-1.581	1.195
You always follow laid down procedures in the utilisation of government grants.	46	2.15	1.577	.910	-.880
You always account for monies raised from fundraising activities	46	2.15	1.445	1.155	-.118
You ensure that financial resources are utilised as stipulated in the budget.	46	3.59	1.326	-.435	-1.303
You utilise financial resources for the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers,	46	2.35	1.663	.506	-1.632
You use financial resources to maintain school surroundings and pay board workers.	46	2.30	1.459	.923	-.629
You always ensure that limited available resources are used for the intended purpose in the provision of education.	46	2.74	1.891	.229	-1.924
You ensure that the school has the funds it needs to run all the programmes smoothly	46	2.37	1.435	.580	-1.076
You ensure efficiency, equity, accountability, and cost-effectiveness in resource utilisation.	46	2.35	1.663	.506	-1.632
Valid N (listwise)	46				

Source: Author (2022)

4.5.1.2.1 Utilisation of Financial Resources

- i. **Funds used by following laid down procedures:** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.20. This shows that of the sampled respondents 30 (65.2%) strongly agreed, 6 (13%) agreed, 4(8.7%) somewhat agreed, 1

(2.2%) not sure, and 5 (10.9%) disagreed that they always use fundraised funds by following financial guidelines.

- ii. *Government grants are utilised in accordance with laid down procedures:*** The statistics from the data on this variable were above 2 as reflected by the mean score of 2.15. This shows that of the sampled respondents 7 (15.2%) strongly agreed, 5 (10.9%) agreed, 3(6.5% somewhat agreed, 4(8.7%) were not sure and 27 (58%) disagreed that they always follow laid down guidelines in the utilisation of government grants.
- iii. *Monies raised from fundraising activities are fully accounted for:*** The statistics from the data on this variable were slightly above 2 as reflected by the mean score of 2.15. This shows that of the sampled respondents 7 (15.2%) strongly agreed, 3 (6.5%) agreed, 16 (34.8%) were not sure and 20 (43.5%) disagreed that they always account for monies raised from fundraising activities.
- iv. *Financial resources are utilised as stipulated in the budget:*** The statistics from the data on this variable were above 3 as reflected by the mean score of 3.59. This shows that of the sampled respondents 15 (32.6%) strongly agreed, 14 (30.4%) agreed, 2 (4.3%) somewhat agreed, 13 (28.3%) were not sure and 2 (4.3%) disagreed that they ensure that financial resources are utilised as stipulated budget.
- v. *Financial resources are utilised following the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc.:*** The statistics from the data on this variable were above 2 as reflected by the mean score of 2.35. This shows that of the sampled respondents 6 (13%) strongly agreed, 12 (26.1%) agreed and 1 (2.2%) somewhat agreed and 27 (58.7%) disagreed that financial resources are utilised following the procurement of school educational materials, and other requirements such as textbooks, chemicals, chalk, markers, etc.
- vi. *Financial resources are used to maintain school surroundings and pay board workers:*** The statistics from the data on this variable were above 2 as reflected by the mean score of 2.30. This shows that of the sampled respondents 36 (78.3%) strongly agreed, 7 (15.2%) agreed, 2 (4.3%) somewhat agreed and 1 (2.2%) disagreed that they use financial resources to maintain school surrounding and pay board workers.

- vii. Ensure limited available resources are used for the intended purpose in the provision of education.* The statistics from the data on this variable were slightly above 2 as reflected by the mean score of 2.74. This shows that of the sampled respondents 17 (37%) strongly agreed, 4 (8.7%) agreed, 2 (4.3%) somewhat agreed and 23 (50%) disagreed that they always ensure that limited available resources are used for the intended purpose in the provision of education.
- viii. Ensure the school has the funds it needs to run all the programmes smoothly.* The statistics in the data on this variable were above 2 as reflected by the mean score of 2.37. This shows that of the sampled respondents 14 (30.4%) strongly agreed, 9 (19.6%) agreed, 12 (26.1%) somewhat agreed, 2 (4.3%) were not sure and 9 (19.6%) disagreed with the statement that they ensure the school has the funds it needs to run all the programmes smoothly.
- ix. Ensure efficiency, equity, accountability, and cost-effectiveness in resource utilisation.* The statistics from the data on this variable were above 2 as reflected by the mean score of 2.35. This shows that of the sampled respondents 6 (13%) strongly agreed, 12 (26.1%) agreed and 1 (2.2%) somewhat agreed and 27 (58.7%) disagreed that efficiency, equity, accountability, and cost-effectiveness in resource utilisation are ensured.

Table 4.7.1: Cumulative analysis variable on Utilisation of financial resources

ITEM	Strongly Agree	Agree	Somewhat Agree	Not Sure	Disagree	TOTAL
You always use fundraised funds by following the procedures	30	6	4	1	5	46
You always follow laid down procedures in the utilisation of government grants.	7	5	3	4	27	46
You always account for monies raised from fundraising activities	7	3	0	16	20	46
You ensure that financial resources are utilised as stipulated in the budget.	15	14	2	13	2	46
You utilise financial resources for the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc.	6	12	1	0	27	46
You use financial resources to maintain school surroundings and pay board workers.	36	7	2	0	1	46
You always ensure that limited available resources are used for the intended purpose in the provision of education.	26	14	2	0	4	46
You ensure that the school has the funds it needs to run all the programmes smoothly	6	12	1	0	27	46
You ensure efficiency, equity, accountability, and cost-effectiveness in resource utilisation.	14	9	12	2	9	46
FREQUENCY	147	82	27	36	128	414
PERCENTAGES	35.6%	20%	6.5%	8.7%	29.2%	100%

Source: Author, (2022)

The cumulative data from the statistics on the utilisation of financial resources shows that out of the 414 responses, 256 (62%) follow the procedure in the utilisation of financial resources and 158 (38%) do not. This, therefore, shows high compliance levels to following procedures in the utilisation of financial resources in public secondary schools.

4.5.1.3 Financial procedural practices

Table 4.8 below shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under financial procedural practices. The mean ranged from 3.22 to 4.76 while the standard deviation ranged from 0.431 to 1.712. Skewness ranged from -1.265 to -0.132 and Kurtosis ranged from -1.519 to 0.910. This, therefore, shows that the skewness and kurtosis of all the items were within the range of -2 and 2. The results indicated that none of the variables deviated from normality.

Table 4.8: Financial Procedural Practices (Descriptive Statistics)

Item	N Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
You always ensure that cash received by the school from other sources (such as the Production Unit), is recorded in the books of accounts.	46	3.43	1.628	-.363	-1.519
You always ensure that the Budget practice procedure is in line with the MOE recommendations.	46	3.22	1.712	-.132	-1.787
There is a signing procedure in place for any payment on the voucher and cheque.	46	4.76	.431	-1.265	-.421
(a) You sign off on funds for every activity in accordance with the budget	46	4.24	.794	-.463	-1.252
(b) You authorize the disbursement of school funds as stipulated in the budget	46	4.30	.628	-.328	-.596
You allocate financial resources according to the budget.	46	4.28	.807	-.570	-1.224
You always check income and expenditure against the approved budget.	46	3.76	1.662	-.845	-1.109
You review budgetary controls on the issuance of warrants, commitments, expenditures, revenues, and accounting from time to time;	46	3.98	.830	-.935	.910
Valid N (listwise)	46				

Source: Author, (2022)

4.6.1.1 Financial Procedural practices

- i ***Cash received by the school from other sources (such as the Production Unit), is recorded in the books of accounts.:*** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.43. This shows that of the sampled respondents 21 (46.7%) strongly agreed, 2 (4.3%) agreed, 8 (17.4%) somewhat agreed, 6 (13.0%) were not sure and 9 (19.6%) disagreed that they always ensure that cash received

by the school from other sources (such as Production Unit), is recorded in the books of accounts.

- ii ***Always ensure Budget practice procedure is in line with the MOE recommendations.:*** The statistics from the data on this variable were above 3 as reflected by the mean score of 3.22. This shows that of the sampled respondents 19 (41.3%) strongly agreed, 4 (8.7%) agreed, 2 (4.3%) somewhat agreed, 10 (21.7%) were not sure and 11 (23.9%) disagreed that they always ensure that the Budget practice procedure is in line with the MOE recommendations.
- iii ***There is a signing procedure in place for any payment on the voucher and cheque:*** The statistics from the data on this variable were above 4 as reflected by the mean score of 4.76. This shows that of the sampled respondents 35 (76.1%) strongly agreed and 11 (23.9%) agreed that there is a signing procedure in place for any payment made on the voucher and cheque.
- iv ***Always sign off on funds for every activity in accordance with the budget:*** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.24. This shows that of the sampled respondents 21 (45.7%) strongly agreed, 15 (32.6%) agreed and 10 (21.7%) somewhat agreed that they always sign off on funds for every activity in accordance with the budget.
- v ***Authorize the disbursement of school funds as stipulated in the budget:*** The statistics from the data on this variable were also slightly above 4 as reflected by the mean score of 4.30. This shows that of the sampled respondents 18 (39.1%) strongly agreed, 24 (52.2%) agreed and 4 (8.7%) somewhat agreed that they always authorize the disbursement of school funds as stipulated in the budget.
- vi ***Allocate financial resources according to the budget.:*** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.28. This shows that of the sampled respondents 23 (50%) strongly agreed, 13 (28.3%) agreed and 5 (10.9%) somewhat agreed that they allocate financial resources according to the budget.
- vii ***Always check income and expenditure against the approved budget:*** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.76. This shows that of the sampled respondents 26 (56.5%) strongly agreed, 6 (13%) agreed, 5

(10.9%) were not sure and 9 (19.6%) disagreed that they always check income and expenditure against the approved budget.

viii ***Review budgetary controls on issuance of warrants, commitments, expenditures, revenues, and accounting from time to time:*** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.98. This shows that of the sampled respondents 11(23.9 %) strongly agreed, 27 (58.7%) agreed, 4 (8.7%) somewhat agreed and 4 (8.7%) were not sure that they reveal budgetary controls on the issuance of warrants, commitments, expenditures, revenues and accounting from twice every month.

Table 4.8.1: Cumulative Analysis of Financial Procedural Practices

ITEM	Strongly Agree	Agree	Somewhat Agree	Not Sure	Disagree	TOTAL
Always ensure that cash received by the school from other sources (such as the Production Unit), is recorded in the books of accounts.	21	2	8	6	9	46
Always ensure that the Budget practice procedure is in line with the MOE recommendations.	19	4	2	10	11	46
There is a signing procedure in place for any payment on the voucher and cheque.	35	11	0	0	0	46
(a) Sign off on funds for every activity in accordance with the budget	21	15	10	0	0	46
(b) Authorize the disbursement of school funds as stipulated in the budget	18	24	4	0	0	46
Allocate financial resources according to the budget.	26	6	0	5	9	46
Always check income and expenditure against the approved budget.	18	12	12	4	0	46
Review budgetary controls on issuance of warrants, commitments, expenditures, revenues, and accounting from time to time;	11	27	4	4	0	46
FREQUENCY	169	101	40	29	29	368
PERCENTAGE	46 %	27 %	11 %	8 %	8 %	100 %

Source: Author, 2022

Cumulative statistics on the sampled respondents on financial procedural practices show that out of the 368 responses, 310 (84.2%) follow laid down financial procedural practices and 58 (15.8%) do not. This shows high compliance levels to financial procedural practices from school managers.

4.6.2 Material resource acquisition and utilisation

Table 4.9 below shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under material resource acquisition and utilisation. The mean ranged from 2.54 to 3.70

while the standard deviation ranged from 1.152 to 1.683. Skewness ranged from -1.063 to 0.360 while Kurtosis ranged from -1.644 to 0.121. This, therefore, shows that the skewness and kurtosis of all the items were within the range of -2 and 2. The results indicated that none of the variables deviated from normality.

Table 4.9: Material Resource Acquisition (Descriptive Statistics)

ITEM	N Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
You acquire materials through Government supplies/donations	46	3.09	1.518	-.034	-1.521
You acquire materials through stakeholders' donations	46	2.54	1.683	.360	-1.644
You acquire materials through purchases that are made based on the annual plan schedule	46	3.70	1.152	-.549	-.813
You ensure that needed materials are procured on time	46	3.70	1.331	-1.063	.121
Valid N (listwise)	46				

Source: Author, (2022)

4.6.2.1 Material Resource Acquisition and Utilisation

- i. ***Acquire and utilise material resources through Government supplies/donations:*** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.09. This shows that of the sampled respondents 12 (26.1%) strongly agreed, 9 (19.6%) agreed, 5 (10.9%) somewhat agreed, 11 (23.9%) were not sure and 9 (19.6%) disagreed that they acquire, and utilise material resources through Government supplies/donations.
- ii. ***Acquire material resources through stakeholders' donations:*** The statistics from the data on this variable were below 3 as reflected by the mean score of 2.54. This shows that of the sampled respondents 9 (strongly agreed, 8 (17.4%) agreed, 5 (10.9%) somewhat agreed, 1 (2.2%) was not sure and 23 (50%) disagreed that they acquire material resources through stakeholders' donations.
- iii. ***Acquire material resources through purchases that are made based on the annual plan:*** The statistics from the data on this variable were also slightly above 3 as reflected by the mean score of 3.70. This shows that of the sampled respondents 13 (28.3%) strongly agreed, 17 (37%) agreed, 6 (13%) somewhat agreed, 9 (19.6%) were not sure and 1 (2.2%) disagreed that they acquire materials through purchases which are made based on the annual plan.

- iv. **Ensure that needed materials are procured in time:** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.70. This shows that of the sampled respondents 14 (30.4%) strongly agreed, 18 (39.1%) agreed, 7 (15.2%) somewhat agreed and 7 (15.2%) disagreed that they ensure that needed materials are procured in time.

Table 4.9.1: Cumulative analysis of variables on Material Resource Acquisition

ITEM	Strongly Agree	Agree	Somewhat Agree	Not Sure	Disagree	TOTAL
Acquire materials through Government supplies/donations	12	9	5	11	9	46
Acquire materials through stakeholders' donations	9	8	5	1	23	46
Acquire materials through purchases that are made based on the annual plan schedule	13	17	6	9	1	46
Ensure that needed materials are procured on time	14	18	7	0	7	46
TOTAL	48	52	23	21	40	184
PERCENTAGE	26 %	28 %	13 %	11 %	22 %	100 %

Source; Author (2022)

Cumulative statistics on the sampled respondents on material resource acquisition shows that out of the 184 responses, 123 (66.8%) represent Government material supplies and stakeholder donations. 61(33.2%) school purchases. This shows that schools acquire 66.8% of material resources through Government supplies and stakeholders' donations and 33.2% through school purchases.

4.6.3 Compliance to procedure for financial resource utilisation

Table 4.10 below shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under Compliance with the procedure for financial resource utilisation. The mean ranged from 3.30 to 4.20 while the standard deviation ranged from 0.718 to 1.562. Skewness ranged from -1.328 to -0.143 while Kurtosis ranged from -1.426 to 3.340. This, therefore, shows that the skewness and kurtosis of all the items were within the range of -2 and 2 except one which shot up to 3.340. The results indicated Compliance with the procedure for financial resource utilisation.

Table 4.10: Compliance to the procedure for financial resource utilisation (Descriptive Statistics)

ITEM	N Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
You always involve staff in the planning for material resource purchases	46	4.20	1.147	-1.325	.932
You always follow laid down procedures in the procurement of teaching and learning materials.	46	3.78	1.381	-.755	-.606
You always make follow-ups and check material utilisation by responsible departments	46	3.67	1.550	-.659	-1.250
You always ensure that materials are protected from wastage and abuse.	46	3.83	1.305	-.918	-.451
You have an assigned body to control the availability and utilisation of educational materials in the school.	46	3.52	1.312	-.944	-.267
You always countersign on the store's requisition book to authorise the release of materials from stores.	46	3.30	1.562	-.387	-1.426
You ensure that material resources are allocated according to departmental requests.	46	4.20	.619	-.143	-.422
You monitor resource arrival, resource use, resource storage, and retrieval; and reapportion unused or under-used resources.	46	4.13	.718	-1.328	3.340
Valid N (listwise)	46				

Source: Author, (2022)

4.6.3.1 Compliance with procedure for financial resource utilisation

- i. Always involve staff in the planning for material resource purchases:* The statistics from the data on this variable were above 4 as reflected by the mean score of 4.20. This shows that of the sampled respondents 27 (58.7%) strongly agreed, 7 (15.2%) agreed, 8 (17.4%) somewhat agreed, 2 (4.3%) were not sure and 2 (4.3%) disagreed that they always involve their staff in the planning for material resource purchases.
- ii. Follow laid down procedures in the procurement of teaching and learning materials:* The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.78. This shows that of the sampled respondents 22 (47.8%) strongly agreed, 4 (8.7%) agreed, 13 (28.3%) somewhat agreed, 2 (4.3%) were not sure and 5 (10.9%) disagreed that they always follow laid down procedures in the procurement of teaching and learning materials.
- iii. Always make follow-ups and check material utilisation by responsible departments:* The statistics from the data on this variable were above 3 as reflected by the mean score of 3.67. This shows that of the sampled respondents 22 (47.8%) strongly agreed, 8 (17.4%) agreed, 1 (2.2%) somewhat agreed, 9 (19.6%), and 6 (13%) disagreed that they always make follow-ups and check material utilisation by responsible departments.

- iv. ***Ensure that materials are protected from wastage and abuse:*** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.83. This shows that of the sampled respondents 18 (39.1%) strongly agreed, 16 (34.8%) agreed, 1 (2.2%) somewhat agreed, 8 (17.4%) were not sure and 3 (6.5%) disagreed with the statement that they sometimes ensure that materials are protected from wastage and abuse.
- v. ***Have an assigned body to control the availability and utilisation of educational materials in school:*** The statistics from the data on this variable were also slightly above 3 as reflected by the mean score of 3.52. This shows that of the sampled respondents 9 (19.6%) strongly agreed, 23 (50%) agreed, 4 (8.7%) somewhat agreed, 3 (6.5%), and 7 (15.2%) disagreed that there is an assigned body to control the availability and utilisation of educational materials in school.
- vi. ***Always countersign on the store's requisition book to authorize the release of materials from stores:*** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.30. This shows that of the sampled respondents 14 (30.4%) strongly agreed, 12 (26.1%) agreed, 4 (8.7%) somewhat agreed, 6 (13%) were not sure and 10 (21.7%) disagreed that they always countersign on the store's requisition book to authorize the release of materials from stores.
- vii. ***Ensure that material resources are allocated according to departmental requests:*** The statistics from the data on this variable were also slightly above 4 as reflected by the mean score of 4.20 This shows that of the sampled respondents 14 (30.4%) strongly agreed, 27 (58.7%) agreed and 5 (10.9%) somewhat agreed that they ensure that material resources are allocated according to departmental requests and helps in material resource accountability in education provision.
- viii. ***Monitor resource arrival, resource use, and resource storage and retrieval; and reapportion unused or under-used resources:*** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.13. This shows that of the sampled respondents 12 (26.1%) strongly agreed, 31 (67.4%) agreed and 3 (6.5%) were not sure that they monitor resource arrival, resource use, resource storage, retrieval; and reapportion of unused or under-used resources.

Table 4.10.1: Cumulative analysis of variable on Material Resource Acquisition

ITEM	Strongly Agree	Agree	Somewhat Agree	Not Sure	Disagree	TOTAL
Always involve staff in the planning for material resource purchases	27	7	8	2	2	46
Always follow laid down procedures in the procurement of teaching and learning materials.	22	4	13	2	5	46
Always make follow-ups and check material utilisation by responsible departments	22	8	1	9	6	46
Always ensure that materials are protected from wastage and abuse.	18	16	1	8	3	46
Have an assigned body to control the availability and utilisation of educational materials in the school.	9	23	4	3	7	46
Always countersign on the store's requisition book to authorise the release of materials from stores.	14	12	4	6	10	46
Ensure that material resources are allocated according to departmental requests.	14	27	5	0	0	46
Monitor resource arrival, resource use, and resource storage and retrieval; and reappportion unused or under-used resources.	12	31	0	3	0	46
TOTAL	138	128	36	33	33	368
PERCENTAGE	37 %	35 %	10%	9 %	9 %	100 %

Source: Author, (2022)

Cumulatively, statistics on the sampled respondents on material resource acquisition show that out of the 368 responses, 302 (82.1%) follow procedure in the acquisition of material resources, and 66 (17.9%) do not. This shows very high compliance levels with material resource acquisition procedures.

4.6.3.2 Projection from Accounts assistants on compliance to procedure for financial resource utilisation

Table 4.11 shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under financial resource utilisation and compliance by accounts assistants. The mean ranged from 3.02 to 4.61 while the standard deviation ranged from 0.771 to 1.578. Skewness ranged from -1.679 to 0.190 while Kurtosis ranged from -1.449 to 1.305. This, therefore, shows that the skewness and kurtosis were within the range of -2 and 2. The result, therefore, indicated that none of the variables deviated from normality.

Table 4.11 Compliance to procedure for financial resource utilisation (Descriptive Statistics)

Item	N Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Kurtosis Statistic
You are always involved in the preparation of the school budget	46	3.89	1.552	-.891	-.890
You always advise your supervisor on financial regulations and procedures.	46	4.37	.771	-.759	-.881
You always ensure compliance with accounting regulations or acts.	46	4.61	.682	-1.509	.929
You always keep custody of all used and unused receipt books.	46	3.70	1.576	-.752	-1.056
You keep custody of all the used and unused cheque books.	46	4.48	.836	-1.358	.620
You always report to the school manager and the finance committee on all matters pertaining to the school's finances	46	4.26	1.373	-1.679	1.305
You always pay on time for purchased items required by the school.	46	3.02	1.542	.190	-1.449
You are a signatory to all the school bank accounts	46	4.02	.802	-.310	-.669
You always give accurate financial reports in board meetings.	46	4.43	.981	-1.286	-.026
You always have accurate and updated banking records.	46	4.28	.861	-.594	-1.398
Valid N (listwise)	46				

Source: Author, (2022)

4.6.3.3 Projection from Accounts assistants on compliance to procedure for financial resource utilisation

- i. ***Always involved in the preparation of the school budget.*** The statistics in the data on this variable were above 3 as reflected by a mean score of 3.89. This means that of the sampled respondents 29 (63%) strongly agreed, 6 (13%) somewhat agreed, 5 (10.9%) were not sure and 6 (13%) disagreed that they are always involved in the preparation of the school budget.
- ii. ***Advise supervisor on financial regulations and procedures.*** The statistics in the data on this variable were above 4 going by the mean score of 4.37. This shows that of the sampled respondents 25 (54.3%) strongly agreed, 13 (28.3%) agreed and 8 (17.4%) somewhat agreed that they always advise their supervisor on financial regulations and procedures.
- iii. ***Ensure compliance with accounting regulations or acts.*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.61. This shows that of the sampled respondents 33 (71.7%) strongly agreed, 8 (17.4%) agreed and 5 (10.9%) somewhat agreed that they always ensure compliance with accounting regulations or acts.
- iv. ***Keep custody of all used and unused receipt books:*** The statistics in the data on this variable were above 3 going by the mean score of 3.70. This shows that of the sampled respondents 23 (50%) strongly agreed, 6 (13%) agreed, 5 (10.2%) somewhat agreed, 4 (8.7%) were not sure and 8 (17.4%) disagreed that they always keep custody of all used and unused receipt books.

- v. ***Keep custody of all the used and unused cheque books:*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.48. This shows that of the sampled respondents 31 (67.4%) strongly agreed, 7 (15.3%) agreed, 7 (15.2%) somewhat agreed and 1 (2.2%) was not sure that they keep custody of all the used, and unused cheque books.
- vi. ***Report to the school manager and the finance committee on all matters pertaining to the school's finances:*** The statistics in the data on this variable were also slightly above 4 as reflected by a mean score of 4.26. This shows that of the sampled respondents 33 (71.7%) strongly agreed, 4 (8.7%) agreed, 2 (4.3%) somewhat agreed, 2 (4.3%) were not sure and 5 (10.2%) disagreed that they always report to the school manager and the finance committee on all matters pertaining to the school's finances.
- vii. ***Pay on time for purchased items required by the school:*** The statistics in the data on this variable were slightly above 3 as reflected by a mean score of 3.02. This shows that of the sampled respondents 15(32.6%) strongly agreed, 11 (23.9%) somewhat agreed, 11 (23.9%) were not sure and 9 (19.6%) disagreed that they paid for the purchased items required by the school in time.
- viii. ***Signatory to all the school bank accounts:*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.02. This shows that of the sampled respondents 14 (30.4%) strongly agreed, 20 (43.5%) agreed, 11 (23.9%) somewhat agreed and 1 (2.2%) was not sure that he/she is a signatory to all the school bank accounts.
- ix. ***Always give accurate financial reports in board meetings.*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.43. This shows that of the sampled respondents 25 (54.3%) strongly agreed, 9 (19.6%) agreed and 12 (26.1%) somewhat agreed that they always give accurate financial reports in board meetings.
- x. ***Have accurate and updated banking records:*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.28. This shows that of the sampled respondents 25 (54.3%) strongly agreed, 9 (19.6%) agreed and 12 (26.1%) somewhat agreed that they always have accurate and updated banking records

Table 4.11.1 Cumulative analysis on compliance to procedure for financial resource utilisation

ITEM	Strongly Agree	Agree	Somewhat Agree	Not Sure	Disagree	TOTAL
Always involved in the preparation of the school budget	29	0	6	5	6	46
Always advise your supervisor on financial regulations and procedures.	25	13	8	0	0	46
Always ensure compliance with accounting regulations or acts.	33	8	5	0	0	46
Always keep custody of all used and unused receipt books.	23	6	5	4	8	46
Keep custody of all the used and unused cheque books.	31	7	7	1	0	46
Always report to the school manager and the finance committee on all matters pertaining to the school's finances	33	4	2	2	5	46
Always pay on time for purchased items required by the school.	15	0	11	11	9	46
You are a signatory to all the school bank accounts	14	20	11	1	0	46
Always give accurate financial reports in board meetings.	25	9	12	0	0	46
Always have accurate and updated banking records.	25	9	12	0	0	46
TOTAL	253	76	79	24	28	460
PERCENTAGE	55 %	16.5 %	17.2 %	5.2%	6.1 %	100 %

Source: Author, (2022)

Cumulatively, statistics on the sampled respondents on compliance to procedure for financial resource utilisation shows that out of the 460 responses, 408 (88.7%) comply with the procedure in financial resources utilisation, and 52 (11.3%) do not. This shows very high compliance levels to the procedure.

4.6.3.4 Projection from Accounts assistants on compliance to procedure for financial resource utilisation

Table 4.12 shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under financial resource utilisation and compliance by accounts assistants. The mean ranged from 3.02 to 4.61 while the standard deviation ranged from 0.771 to 1.576. Skewness ranged from -1.679 to 0.190 while Kurtosis ranged from -1.449 to 1.305. This, therefore, shows that the skewness and kurtosis of most of the items were within the range of -2 and 2. The result, therefore, indicated that none of the variables deviated from normality and so there is high compliance to procedures for financial resource utilisation.

Table 4.12: Compliance to procedure for financial resource utilisation (Descriptive Statistics)

	N	Mean	Std. Deviation	Skewness	Kurtosis
Item	Statistic	Statistic	Statistic	Statistic	Statistic
You update financial records at least twice a week	46	3.43	1.294	-.494	-.554
You always consult the school manager before a payment is made.	46	4.35	.849	-.979	-.197
You periodically carry out reconciliation for students records against payments made.	46	4.30	.662	-.425	-.689
You record all financial disbursements	46	4.24	.794	-.463	-1.252
You periodically carry out account reconciliation with the bank statement	46	4.37	.741	-1.069	.961
Account for a daily statement from the bank on students' payments	46	4.15	.918	-.495	-1.219
You ensure accounts department is in charge of all monetary transactions	46	4.37	.711	-.681	-.714
There is available technology (ICT) for processing all accounting records in school	46	3.09	1.575	-.150	-1.546
You ensure all departmental budgets are properly scrutinized	46	3.96	.788	-.207	-.642
You ensure that all purchases are done by the procurement unit and that all supporting documents are documented	46	3.85	1.053	-.160	-1.414
Valid N (list-wise)	46				

Source: Author, (2022)

4.6.3.5 Projection from Accounts assistants on compliance to procedure for financial resource utilisation

- i. ***Update financial records at least twice a week:*** The statistics in the data on this variable were above 3 going by the mean score of 3.43. This shows that of the sampled respondents 12 (26.1%) strongly agreed, 10 (21.7%) agreed, 16 (34.8%) somewhat agreed, 2 (4.3%) were not sure and 6 (13%) disagreed that you update financial records at least twice a week.
- ii. ***Always consult the school manager before a payment is made.*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.35. This shows that of the sampled respondents 26 (56.5%) strongly agreed, 11 (23.9%) agreed, 8 (17.4%) somewhat agreed and 1 (2.2%) was not sure that they always consult the school manager before a payment is made.
- iii. ***Periodically carry out reconciliation for students' records against payments made:*** The statistics in the data on this variable were slightly above 4 as reflected by a mean score of 4.12. This shows that of the sampled respondents 19 (41.3%) strongly agreed, 22 (47.8%) agreed and 5 (10.9%) somewhat agreed that they periodically carry out reconciliations for students records against payments made.

- iv. ***Record all financial disbursements;*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.24. This shows that of the sampled respondents 21 (45.7%) strongly agreed, 15 (32.6%) agreed and 10 (31.7%) somewhat agreed that they record all disbursements made.
- v. ***Periodically carry out account reconciliation with the bank statement:*** The statistics in the data on this variable were above 4 going by the mean score of 4.37. This shows that of the sampled respondents 23 (50%) strongly agreed, 18 (39.1%) agreed, 4 (8.7%) somewhat agreed and 1 (2.2%) was not sure that they periodically carry out account reconciliations with the bank statement as a requirement stipulated by the public finance management Act of 2018.
- vi. ***Account for a daily statement from the bank on students' payments:*** The statistics in the data on this variable were above 4 as reflected by a mean score of 4.15. This shows that of the sampled respondents 22 (47.8%) strongly agreed, 10 (21.7%) agreed, 13 (28.3%) somewhat agreed and 1 (2.2%) were not sure that they account for a daily statement from the bank on students' payments.
- vii. ***Ensure accounts department is in charge of all monetary transactions in school.*** The statistics in the data on this variable were also slightly above 4 as reflected by a mean score of 4.37. This shows that of the sampled respondents 23 (50%) strongly agreed, 17 (37%) agreed and 6 (13%) somewhat agreed that the accounts department is in charge of all monetary transactions in school.
- viii. ***There is available technology (ICT) for processing all accounting records in school:*** The statistics in the data on this variable were slightly above 3 as reflected by a mean score of 3.09. This shows that of the sampled respondents 12 (26.1%) strongly agreed, 10 (21.7%) agreed, 6 (13%) somewhat agreed, 6 (13%) were not sure and 12 (26.1%) disagreed that there is available technology (ICT) for processing all accounting records in school.
- ix. ***All departmental budgets are properly scrutinized:*** The statistics in the data on this variable were above 3 going by the mean score of 3.96. This shows that of the sampled respondents 12 (23.1%) strongly agreed, 21 (45.7%) agreed, 12 (26.1%) somewhat agreed and 1 (2.2%) was not sure that they ensure that all departmental budgets are properly scrutinized.

- x. ***Ensure that all purchases are done by the procurement unit and that all supporting documents are attached:*** The statistics in the data on this variable were above 3 as reflected by a mean score of 3.85. This shows that of the sampled respondents 18 (39.1%) strongly agreed, 7 (15.2%) agreed, 17 (37%) somewhat agreed and 4 (8.7%) were not sure that all purchases in school are done by the procurement unit and supporting documents attached as stipulated in the procurement Act of 2011.

Table 4.12.1 Cumulative analysis on compliance to procedure for financial resource utilisation

ITEM	Strongly Agree	Agree	Somewhat Agree	Not Sure	Disagree	TOTAL
Update financial records at least twice a week	12	10	16	2	6	46
Always consult the school manager before a payment is made.	26	11	8	1	0	46
Periodically carry out reconciliation for students records against payments made.	19	22	5	0	0	46
Record all financial disbursements	21	15	10	0	0	46
Periodically carry out account reconciliation with the bank statement	23	18	4	1	0	46
Account for a daily statement from the bank on students' payments	22	10	13	1	0	46
Ensure accounts department is in charge of all monetary transactions	23	17	6	0	0	46
There is available technology (ICT) for processing all accounting records in school	12	10	6	6	12	46
Ensure all departmental budgets are properly scrutinized	12	21	12	1	0	46
Ensure that all purchases are done by the procurement unit and that all supporting documents are documented	18	7	17	4	0	46
TOTAL	188	141	97	16	18	460
PERCENTAGE	41%	30.6%	21%	3.5%	3.9%	100%

Source: Author, (2022)

Statistics on the sampled respondents on compliance to procedure for financial resource utilisation from accounts assistants cumulatively show that 426 (93%) respondents comply with procedure and 34 (7%) do not comply. This shows high levels of compliance by accounts assistants to procedures for financial resource utilisation.

4.6.4 Managerial accountability and compliance with material resource utilisation

Table 4.13 shows the mean, standard deviation, skewness, and kurtosis for each of the variables under Compliance with the procedure for material resource utilisation. The mean ranged from 2.20 to 4.63 while the standard deviation ranged from 0.504 to 1.736. Skewness ranged from -

1.553 to 1.339 while Kurtosis ranged from -2.059 to 1.983. This, therefore, shows that the skewness and kurtosis of all the items were within the range of -2 and 2. The results indicated that none of the variables deviated from normality.

Table 4.13 Managerial Accountability and Compliance - (Descriptive Statistics)

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
You ensure that all revenue received in school is promptly banked before being used.	46	4.63	.645	-1.553	1.237
Your school has a cheque register.	46	3.09	1.736	-.033	-1.835
You organise school board meetings and give financial reports at the beginning of the term.	46	2.46	1.277	.402	-.966
You always follow public accountability procedures as stipulated in the Public Finance Management Act No. 1 of 2018 and the procurement Act of 2011.	46	3.61	1.308	-.778	-.268
You always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services.	46	4.09	1.262	-1.142	-.015
You always review compliance with the existing Government financial regulations, instructions, and procedures;	46	2.22	1.489	.875	-.665
You prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board.	46	4.54	.504	-.181	-2.059
You always ensure that the school budget is approved by the board before any spending is done as guided by the Government Decentralization Policy.	46	4.41	.686	-1.186	1.983
You check income statements, bank balance sheets, books of accounts, and bank reconciliation every month-end.	46	2.20	1.485	.712	-1.146
You check and verify daily collection and receipt issuance by the accounts department at least twice a week.	46	2.57	.935	1.339	.371
You ensure that all statutory accounting books like the ledger, cashbook, and asset register, are maintained and updated at least three times in a term.	46	2.13	1.166	.614	-.441
Valid N (listwise)	46				

Source: Author, (2022)

4.5.3.2 Managerial accountability and compliance with material resource utilisation

- i. ***Ensure revenue received in school is promptly banked before being used.*** The statistics from the data on this variable were above 3 as reflected by the mean score of 4.63. This shows that of the sampled respondents 33 (71.7%) strongly agreed, 9 (19.6%) agreed and 4 (8.7%) somewhat agreed that revenue received in school is banked before being used as stipulated in the financial management regulation of 2018.
- ii. ***The school has a cheque register:*** The statistics from the data on this variable were significantly above 4 as reflected by the mean score of 3.09. This shows that of the sampled

respondents 30 (65%) strongly agreed, 6 (13%) agreed, and 10 (22%) were not sure that they have a cheque register.

- iii. ***Organise school board meetings and give financial reports at the beginning of the term:***
The statistics from the data on this variable were slightly above 2 as reflected by the mean score of 2.46. This shows that of the sampled respondents 3 (6.5%) strongly agreed, 8 (17.4%) agreed, 10 (21.7%) somewhat agreed, 11 (23.4%) were not sure and 14 (30.4%) disagreed that the school board meetings are organised and financial reports are given at the beginning of the term
- iv. ***Always follow public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the procurement Act of 2011:*** The statistics from the data on this variable were above 3 as reflected by a mean score of 3.61. This shows that of the sampled respondents 14 (30.4%) strongly agreed, 13 (28.3%) agreed, 12 (26.1%) somewhat agreed and 7 (15.2%) disagreed that they always follow public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the procurement Act of 2011.
- v. ***Always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services.*** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.09. This shows that of the sampled respondents 26 (56.5%) strongly agreed, 8 (17.4%) agreed, 4 (8.7%) somewhat agreed, 6 (13%) were not sure and 2 (4.3%) disagreed that they always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services.
- vi. ***Review compliance with the existing Government financial regulations, instructions, and procedures;*** The statistics from the data on this variable were above 2 as reflected by the mean score of 2.22. This shows that of the sampled respondents 7 (15.2%) strongly agreed, 2 (4.3%) agreed, 8 (17.4%) somewhat agreed, 6 (13%) were not sure and 23 (50%) disagreed that they always review compliance with the existing Government financial regulations, instructions, and procedures.
- vii. ***Prepare a school budget in consultation with all stakeholders such as the head of departments, teachers, school council representatives, and the School Education Board:***
The statistics from the data on this variable were above 4 as reflected by the mean score of 4.54. This shows that of the sampled respondents 25 (54.3%) strongly agreed and 21

- (45.7%) agreed that the school budgets are prepared in consultation with all concerned education stakeholders.
- viii. ***Always ensure that the school budget is approved by the board before any spending is done as guided by the Government Decentralization Policy:*** The statistics from the data on this variable were above 4 as reflected by the mean score of 4.41. This shows that of the sampled respondents 23 (50%) strongly agreed, 20 (43.5%) agreed, 2 (4.3%) somewhat agreed and 1 (2.2%) was not sure that they always ensure that the school budget is approved by the board before any spending is done as guided by the Government Decentralization Policy.
- ix. ***Check income statements, bank balance sheets, books of accounts, and bank reconciliation every month-end:*** The statistics from the data on this variable were slightly above 2 as reflected by the mean score of 2.20. This shows that of the sampled respondents 4 (8.7%) strongly agreed, 9 (19.6%) agreed, 4 (8.7%) somewhat agreed and 29 (63%) disagreed that they check income statements, bank balance sheets, books of accounts, and bank reconciliation every month-end.
- x. ***Check and verify daily collections and receipt issuance by the accounts department at least twice a week:*** The statistics from the data on this variable were above 2 as reflected by the mean score of 2.57. This shows that of the sampled respondents 2 (4.3%) strongly agreed, 8 (17.4%) agreed, 4 (8.7%) somewhat agreed and 32 (69.6%) were not sure that they checked and verified daily collections and receipt issuance by the accounts department at least twice a week.
- xi. ***Ensure all statutory accounting books like the ledger, cashbook, and asset register, are maintained and updated at least three times in a term.*** The statistics from the data on this variable were slightly above 2 as reflected by a mean score of 2.13. This shows that of the sampled respondents 2 (4.3%) strongly agreed, 3 (6.5%) agreed, 6 (13%) somewhat agreed, and 35 (76.1%) were not sure that all statutory accounting books are maintained and updated at least three times in a term.

The cumulative statistics on the sampled respondents on managerial accountability and compliance show that of the 506 responses, 330 (65%) comply with the procedure and 176 (35%) do not comply. This shows high levels of compliance by school managers to managerial accountability practices.

4.6.4.1 Control of Material Resources utilisation

Table 4.14 shows the mean, standard deviation, skewness, and kurtosis for the variable under the Control of Material Resources utilisation. The mean was 4.48 while the standard deviation was 0.547. Skewness was -0.336 while Kurtosis was -1.051. This, therefore, shows that the skewness and kurtosis of the item were within the range of -2 and 2. The result, therefore, indicated that none of the variables deviate from normality.

Table 4.14: Control of Material Resources (Descriptive Statistics) COMR

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
You check and ensure that all education materials purchased or donated are entered in the stock book and labeled by the store's officer before use/ distribution to departments.	46	4.48	.547	-.336	-1.051
Valid N (listwise)	46				

Source: Author, (2022)

Check and ensure all education materials purchased or donated are entered in the stock book and labeled by the store's officer before use/ distribution to departments: The statistics from the data on this variable were above 4 as reflected by the mean score of 4.48. This shows that of the sampled respondents 23 (50%) strongly agreed, 22 (47.8%) agreed and 1 (2.2%) somewhat agreed that they check and ensure that all education materials purchased or donated are entered in the stock book and labeled by the store's officer before use/ distributed to departments.

Cumulatively, statistics show that 46 (100%) of the sampled respondents check and ensure that all education materials purchased or donated are entered in the stock book and labeled by the store's officer before use/ distribution to departments for use.

4.6.5 Economic resource utilisation

4.6.5.1 Accountability and economic usage of stationary

Table 4.15 shows the mean, standard deviation, skewness, and Kurtosis for each of the variables under Accountability and economic usage of stationary. The mean ranged from 4.41 to 3.80 while the standard deviation ranged from 0.926 to 1.147. Skewness ranged from -1.948 to -.983 while Kurtosis ranged from 0.091 to 3.259. The results showed that the skewness and kurtosis of all the items were within the range of -2 and 2. The results indicated that none of the variables deviated from normality.

Table 4.15 Accountability and economic usage of stationary

	N	Mean	Std. Deviation	Skewness	Kurtosis
Item	Statistic	Statistic	Statistic	Statistic	Statistic
Your school uses back-to-back printing	46	4.41	1.066	-1.948	3.259
You limit the allocation of stationary to each department	46	3.80	1.147	-.983	.091
Promotion of e-mail or electronic communication to departments (soft copy)	46	3.83	.926	-1.041	1.211
VALID N (LISTWISE)	46				

Source: Author, (2022)

4.6.5.1.1 Accountability and economic usage of stationary

- i. **Usage of back-to-back printing:** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.41. This shows that of the sampled respondents 32 (69.6%) strongly agreed, 6 (13%) agreed, 5 (10.9%) somewhat agreed, 1 (2.2%) was not sure and 2 (4.3%) disagreed that the school uses back-to-back printing.
- ii. **Limiting allocation of stationary to each department:** The statistics from the data on this variable were slightly above 3 as reflected by the mean score of 3.80. This shows that of the sampled respondents 13 (28.3%) strongly agreed, 22 (47.8%) agreed, 2 (4.3%) somewhat agreed, 7 (15.2%) were not sure and 2 (4.3%) disagreed that there is a limit in the allocation of stationary to each department.
- iii. **Promotion of e-mail or electronic communication to departments (soft copy):** The statistics from the data on this variable were above 3 as reflected by the mean score of 3.83. This shows that of the sampled respondents 9 (19.6%) strongly agreed, 26 (56.5%) agreed, 6 (13%) somewhat agreed, 4 (8.7%) were not sure and 1 (2.2%) disagreed that they use e-mails or electronic communication to departments (soft copy).

Cumulative statistics on the sampled respondents on **accountability and economic usage of stationary** show that out of the 138 responses, 121 (87.7%) account for the usage of stationary and 17 (12.3%) do not. This shows a high economic accountability level in the usage of stationary.

4.6.5.2 Accountability and economic usage of water

Table 4.16 shows the mean, standard deviation, skewness, and Kurtosis for each of the variables under accountability and economic usage of water. The mean ranged from 3.78 to 4.39 while the standard deviation ranged from 0.774 to 1.228. Skewness ranged from -1.800 to -.845 while Kurtosis ranged from 0.055 to 3.074. The results showed that the skewness and kurtosis of all the

items were within the range of -2 and 2. The results indicated that none of the variables deviated from normality.

Table 4.16 Accountability and economic usage of water

	N	Mean	Std. Deviation	Skewness	Kurtosis
Item	Statistic	Statistic	Statistic	Statistic	Statistic
Teach students not to play with water in the toilet	46	4.09	1.112	-1.800	3.074
Avoid flushing the toilet unnecessarily	46	3.98	1.164	-1.282	1.011
Irrigate plants in the morning or in the evening to avoid rapid evaporation under the mid-day scorching sun	46	4.39	.774	-1.122	.697
Arrange for prompt repair to any dripping tap or leaking water main found	46	3.78	1.228	-.845	.055
VALID N (LISTWISE)	46				

Source: Author, (2022)

4.6.5.2.1 Accountable and economic usage of water

- i **Teaching students not to play with water in the toilet:** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.09. This shows that of the sampled respondents 18 (39.1%) strongly agreed, 22 (47.5%) agreed, 2 (4.3%) somewhat agreed and 4 (8.7%) disagreed that learners are taught not to play with water in the toilets.
- ii **Avoid flushing the toilet unnecessarily:** The statistics from the data on this variable were above 3 as reflected by the mean score of 3.98. This shows that of the sampled respondents 18 (39.1%) strongly agreed, 18 (39.1%) agreed, 4 (8.7%) somewhat agreed, 3 (6.5%) were not sure and 3 (6.5%) disagreed that learners should avoid flushing the toilet unnecessarily.
- iii **Irrigate plants in the morning or the evening to avoid rapid evaporation under the mid-day scorching sun:** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.39. This shows that of the sampled respondents 25 (54.3%) strongly agreed, 15 (32.6%) agreed, 5 (10.9%) somewhat agreed and 1 (2.2%) was not sure that Irrigation of plants is done in the morning or in the evening to avoid rapid evaporation under the mid day's scorching sun.
- iv **Arrange for prompt repair to any dripping tap or leaking water main found:** The statistics from the data on this variable were above 3 as reflected by the mean score of 3.78. This shows that of the sampled respondents 17 (37.0%) strongly agreed, 11 (23.9%) agreed, 13 (28.3%) somewhat agreed, 1 (2.2%) was not sure and 4 (8.7%) disagreed that arrangements for prompt repair to any dripping tap or leaking water main found should be made.

Cumulative statistics on the sampled respondents on **accountability and economic usage of water** show that out of the 184 responses, 168 (91.3%) account for the usage of water and 16 (8.7%) do not. The cumulative statistics show very high economic accountability on the usage of water.

4.6.5.3 Accountability practices and economic usage of electricity

Table 4.17 shows the mean, standard deviation, skewness, and Kurtosis for each of the variables under Accountability practices and economic usage of electricity. The mean ranged from 2.52 to 4.11 while the standard deviation ranged from 0.842 to 1.761. Skewness ranged from -1.635 to 0.422 while Kurtosis ranged from -1.683 to 3.898. The results showed that the skewness and kurtosis of all the variables were within the range of -2 and 2. These results indicated that none of the variables deviated from normality.

Table 4.17: Accountability practices and economic usage of electricity

	N	Mean	Std. Deviation	Skewness	Kurtosis
Item	Statistic	Statistic	Statistic	Statistic	Statistic
Switched over to LED or CFLs compact florescent light in school	46	3.63	1.404	-.708	-.749
Use sensors for turning lights On or Off in school	46	2.52	1.761	.422	-1.683
Keep all windows, light bulbs, and light fittings clean to maintain optimum lighting performance	46	3.78	1.114	-.456	-1.124
Maintain only those lighting which is essential for safety, security, or other specific purposes in areas that are infrequently occupied	46	4.04	.842	-1.251	2.910
Have ensured maximized daylight usage	46	4.11	.924	-1.635	2.898
VALID N (LISTWISE)	46				

Source: Author, (2022)

4.6.5.3.1 Accountability practices and economic usage of electricity

- i. **Switched over to LED or CFLs compact fluorescent light in school:** The statistics from the data on this variable were above 3 as reflected by the mean score of 3.63. This shows that of the sampled respondents 17 (37%) strongly agreed, 11 (23.9%) agreed, 8 (17.4%) somewhat agreed, 4 (8.7%) were not sure and 6 (13%) disagreed that they have Switched over to LED or CFLs compact fluorescent light in school.
- ii. **Use sensors for turning lights On or Off in school:** The statistics from the data on this variable were below 3 as reflected by the mean score of 2.52. This shows that of the sampled respondents 11(23.9%) strongly agreed, 6 (13.0%) agreed, 4 (8.7%) somewhat agreed and 25 (54.3%) disagreed that they use sensors for turning lights **On** or **Off** in school.

- iii. ***Keep all windows, light bulbs, and light fittings clean to maintain optimum lighting performance:*** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.04. This shows that of the sampled respondents 15 (32.6%) strongly agreed, 15 (32.6%) agreed, 7 (15.2%) somewhat agreed and 9 (19.6%) were not sure that they should keep all windows, light bulbs, and light fittings clean to maintain optimum lighting performance:
- iv. ***Maintain only those lighting which are essential for safety, security, or other specific purposes in areas that are infrequently occupied:*** The statistics from the data on this variable were slightly above 4 with a mean score of 4.04. This shows that of the sampled respondents 13 (28.3%) strongly agreed, 25 (54.3%) agreed, 6 (13%) somewhat agreed, 1 (2.2%) was not sure and 1 (2.2%) disagreed that they maintain only those lightings which are essential for safety, security or other specific purposes in areas that are infrequently occupied.
- v. ***Have ensured maximized daylight usage:*** The statistics from the data on this variable were slightly above 4 as reflected by the mean score of 4.11. This shows that of the sampled respondents 16 (34.8%) strongly agreed, 23(50%) agreed, 5 (10.9%) somewhat agreed and 2 (4.3%) disagreed that they have ensured maximized daylight usage.

Cumulative statistics on the sampled respondents on **accountability and economic usage of electricity** show that out of the 230 responses, 182 (79.1%) account for the usage of electricity and 48 (20.9%) do not. The cumulative statistics show very high economic accountability on the usage of electricity.

4.6.5.4 Accountability and economic practices

Table 4.18 shows the mean, standard deviation, skewness, and Kurtosis for each of the variables under Beliefs. The mean ranged from 3.65 to 4.50 while the standard deviation ranged from 0.621 to 1.215. Skewness ranged from -1.055 to -265 while Kurtosis ranged from -0.558 to -0.077. The results showed that the skewness and kurtosis of all the items were within the range of -2 and 2. The result, therefore, indicated that none of the variables deviated from normality.

Table 4.18: Accountability and Economic Practices (Descriptive Statistics)

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
Remind the last one to leave the classroom/office to switch off all electrical appliances	46	4.50	.691	-1.055	-.110
Conduct routine checks to ensure unnecessary lighting/air-conditioners, and communal facilities (e.g., photocopiers) are switched off outside school/office hours	46	4.28	.621	-.265	-.558
Monitor the usage of electricity, water, and stationery	46	3.65	1.215	-.838	-.077
Valid N (listwise)	46				

Source: Author, (2022)

4.6.5.4.1 Accountability and economic practices

- i. ***Remind the last one to leave the classroom/office to switch off all electrical appliances:*** The statistics from the data on this variable were above 4 as reflected by the mean score of 4.50. This shows that of the sampled respondents 28 (60.9%) strongly agreed, 13 (28.3%) agreed and 5 (10.9%) somewhat agreed that the last person leave the classroom/office to switch off all electrical appliances.
- ii. ***Conduct routine checks to ensure unnecessary lighting/air-conditioners, and communal facilities (e.g., photocopiers) are switched off outside school/office hours:*** The statistics from the data on this variable were above 4 as reflected by the mean score of 4.28. This shows that of the sampled respondents 17 (37%) strongly agreed, 25 (54.3%) agreed and 4 (8.7%) somewhat agreed that routine checks are conducted to ensure unnecessary lighting/and other electrical appliances are switched off outside school/office hours.
- iii. ***Monitor the usage of electricity, water, and stationery:*** The statistics from the data on this variable were above 4 as reflected by the mean score of 4.48. This shows that of the sampled respondents 12 (26.1%) strongly agreed, 18 (39.1%) agreed, 8 (17.4%) somewhat agreed, 4 (8.7%) were not sure and 4 (8.7%) disagreed that they monitor the usage of electricity, water, and stationery.

Cumulative statistics on the sampled respondents on **accountability and economic practices** show out of the 138 responses, 130 (94.2%) agreed to economically account for their practices in resource usage and 8 (5.8%) did not. The cumulative statistics, in this case, show very high economic accountability on economic practices.

4.6.6 Exploring material resources procurement procedures in public secondary schools

The researcher explored material resource procurement procedures in the procurement of material resources in public secondary schools. Despite schools following the laid down procedure as stipulated in the procurement Act of 2011, cumulative data shows that of the 506 responses, 463 (91.5%) comply with procedure in the procurement of educational materials and 43 (8.5%) do not comply as shown in Table 4.12. This shows high levels of compliance with procurement procedures by the school manager with minimal deviations. Below is a step-by-step practice and procedure for the acquisition of material resources;

STEP 1 IDENTIFICATION OF NEED and SPECIFICATION of the need by the user department

STEP 2 GENERATING OF THE INDENT

The User department puts the need in writing via indent/purchase requisition. A full description, quantity, estimate value, justification, and approvals.

STEP 3 PURCHASE ENQUIRY

Procurement unit undertakes sourcing of the market and collects 3 competitive quotations.

STEP 4 EVALUATION OF QUOTATIONS AND RECOMMENDATIONS.

An evaluation sheet is used. Procurement unit recommends for award of an order to the lowest evaluated price not merely the lowest price. (Quality, delivery, and payment aspects may outweigh price). Thus, consideration of a price consistent with quality, timely delivery, etc.

STEP 5 RAISING LPO –LOCAL PURCHASE ORDER.

Thus, instructing suppliers to Deliver goods/services. Depending on the threshold, the procurement committee may be sought to convene before an order is raised.

STEP 6 RECEIPT AND RECORDING OF THE GOODS

stores personnel demand an invoice and a delivery note and goods are inspected.

STEP 7 If goods are accepted, A GOODS RECEIVED VOUCHER IS AISED.

This acknowledges that goods have been received.

STEP 8 BINNING OF GOODS

A bin is a location for a specific item and each bin has a bin card. The bin card is then updated by recording qty received.

STEP 9 UPDATE OF STORES LEDGER

The main record of received goods captures details of receipts, issues, and stock value.

Cumulatively the situation on the ground established that of the 46 sampled respondents 39 (85 %) always followed public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the procurement Act of 2011 and 7 (15%) did not. It is important to note that the procurement process as shown above is a step-by-step process. The practice on the ground cumulatively shows that 39 (85%) of the 46 sampled respondents always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services and 7 (15%) did not. Despite the fact that data shows high compliance levels in the procurement process, school managers complain about the long process.

4.6.7 Tools school managers use for monitoring material and financial resource utilisation

The statistical data on these variables on identification and evaluation of tools school managers use for monitoring financial and material resource utilisation was ranked for easy summation of the responses from the sampled respondents. The tools included; the cash book, the Goods received voucher, the store requisition, the Bank Statement, stores ledgers, cheque register, fixed asset register, Bank reconciliation, Stock-taking of supplies, and the receipt books. Deviations were experienced from 124(16%) responses.

Statistics on the sampled respondents on tools school managers use for monitoring material and financial resource utilisation show that of the 782 responses, 330 (42.2%) strongly agreed that these tools are used and are effective, 242 (30.94%) agreed, 86 (11%) somewhat agreed, 62 (7.93%) were not sure and 62 (7.93%) disagreed.

Cumulatively, 658 (84%) agreed and 124 (16%) did not. The study in this case shows very high levels in the usage of these tools to monitor financial and material resource utilisation effectively with a deviation of just 16%. These tools are very effective in monitoring material and financial resource utilisation as can be seen from the responses as illustrated in Table 4.29 below.

Table 4.19: Scale and Number of Material and financial resource utilisation

Item	Disagree	Not Sure	Somewhat Agree	Agree	Strongly Agree	Mode	Total	RII	Ranking
	1	2	3	4	5				
FP3	0	0	0	11	35	Strongly Agree	46	0.952	1
FP5	0	0	4	24	18	Agree	46	0.861	2
FP6	0	0	10	13	23	Strongly Agree	46	0.857	3
FP4	0	0	10	15	21	Strongly Agree	46	0.848	4
MP1	2	2	8	7	27	Strongly Agree	46	0.839	5
MP7	0	0	5	27	14	Agree	46	0.839	6
MP8	0	3	0	31	12	Agree	46	0.826	7
FP9	0	4	4	27	11	Agree	46	0.796	8
FP7	0	4	12	12	18	Strongly Agree	46	0.791	9
MP4	3	8	1	16	18	Strongly Agree	46	0.765	10
MP2	5	2	13	4	22	Strongly Agree	46	0.757	11
FP8	9	5	0	6	26	Strongly Agree	46	0.752	12
MP3	6	9	1	8	22	Strongly Agree	46	0.735	13
MP5	7	3	4	23	9	Agree	46	0.704	14
FP1	9	6	8	2	21	Strongly Agree	46	0.687	15
MP6	10	6	4	12	14	Strongly Agree	46	0.661	16
FP2	11	10	2	4	19	Strongly Agree	46	0.643	17
FREQUENCY	62	62	86	242	330		782		
%	7.93%	7.93%	11%	30.94%	42.20%		100%		

Source: Author, (2022)

From the findings, all assets are given asset registration numbers and labeled or engraved accordingly. Each time a new asset is purchased/donated or otherwise obtained, when an asset is sold or otherwise disposed of, or when an asset is moved from one location to another location, this is promptly recorded in the register. Procured goods are managed efficiently and cost-effectively in most of the schools sampled, and the school's management provides a reliable service to users at all times. All goods in the sampled schools are stored in a secure place that is only accessed by authorised staff.

Cumulatively, 35 (76%) of the 46 sampled schools duly recorded in the store's ledger all the goods received in the store and all the goods issued from the store. 27 (58.6%) of the 46 sampled store officers carry out a stock count under the supervision of the school manager and all differences between recorded and actual quantities were explained and presented in a stock-taking statement signed by the stores' officer and the school managers termly. Of the school sampled 11

(24%) Heroes Secondary, Apple Day Secondary, Bright Future Secondary, Winners Secondary, West Star Secondary, Orange Grove Secondary, Blue Valley Secondary, Highland Secondary, Stepping Stone Secondary, Rose Dale Secondary, Hope Valley Secondary Schools stores officers had not updated their store's ledgers in relation to the items received and utilised in school. This means that these schools were unable to account for the material resources received and utilised in school.

4.6.7.1 Management of fixed assets

From some of the schools sampled, all fixed assets were physically maintained and kept in a secure, efficient, and effective manner.

4.6.7.2 Fixed assets register

Some accounts assistants maintain a register of fixed assets. All assets have been given asset registration numbers and labeled or engraved accordingly. According to them, each time a new asset is purchased/donated or otherwise obtained, when an asset is sold or otherwise disposed of, or when an asset is moved from one location to another location, this is promptly recorded in the register.

According to the statistical data obtained from some sampled secondary schools stocktaking of assets is done termly, the accounts assistant and the school manager jointly ensure that a stocktaking of all assets in each office, class, and other space in the school is done. Financial reports in some of the sampled schools are prepared at the end of each term, the accounts assistants provide the following financial reports:

1. Income & expenditure statement;
2. Balance of bank accounts, petty cash and
3. Outstanding imprest;
4. Stores stocktaking statement; and
5. Employee statement.

4.6.7.3 Income and expenditure report

In most schools sampled the accounts assistant prepares the income and expenditure statement. This statement presents all actual receipts and expenditures against the budgeted amounts. The statement covers the period from the beginning of the school year to date. The relevant receipts and expenditure codes are observed.

4.6.7.4 Statement of balances

The accounts assistants in some sampled secondary schools prepare the statement of balances, presenting the following:

1. Balance of each bank account;
2. Petty cash balance; and
3. The total amount of outstanding imprest.

4.7 Assessing levels of managerial accountability compliance to set standards/ expectations

To assess the levels of managerial accountability compliance to set standards a Relative Importance Index formula (RII) (Tam et al., 2000) was used to analyse Objective three (3).

$$RII = \frac{\sum fW}{n * 5}$$

Where:

f = frequency

W = weights (which are the scores on the 1-5 Likert scale)

n = sample size

5 = the highest score on the Likert scale

Table 4.20 below shows items/factors that influence the levels of managerial accountability compliance to set standards. Having ranked items, 1,287 responses were received and 522 representing 40.56 % of the respondents' responses on all items revealed that compliance to set standards was the highest under strongly agreed followed by 430 responses of agreed representing 33.41%. Somewhat agree responses totaled 179 responses giving 13.91% and not sure responses were 68 representing 5.28% while 88 responses representing 6.84% disagreed to compliance to laid down standards. Therefore, not sure was the lowest on managerial accountability compliance to set standards.

Table 4.20: Scale and Number of Compliance to set standard in resource utilisation

Item	Disagree	Not Sure	Somewhat Agree	Agree	Strongly Agree	Mode	Total	RII	Ranking
	1	2	3	4	5				
CTPFUOFR2	0	0	0	7	39	Strongly Agree	46	0.97	1
CTPFUOFR1	0	0	4	9	33	Strongly Agree	46	0.926	2
CTPFUOFR7	0	0	0	21	25	Strongly Agree	46	0.909	3
COMR13	0	0	5	13	27	Strongly Agree	45	0.898	4
CTPFUOMR1	0	0	1	22	23	Strongly Agree	46	0.896	5
CTPFUOFR8	0	1	2	20	23	Strongly Agree	46	0.883	6
COMR1	2	1	5	6	32	Strongly Agree	46	0.883	7
COMR6	0	1	5	15	25	Strongly Agree	46	0.878	8
COMR14	0	0	4	25	17	Agree	46	0.857	9
CTPFUOFR5	2	5	4	8	27	Strongly Agree	46	0.83	10
CTPFUOFR9	1	0	7	21	17	Agree	46	0.83	11
COMR12	2	0	5	23	16	Agree	46	0.822	12
COMR4	4	0	2	22	18	Agree	46	0.817	13
COMR11	1	1	6	25	13	Agree	46	0.809	14
CTPFUOFR10	0	4	9	17	16	Agree	46	0.796	15
COMR5	3	3	4	18	18	Agree/Strongly Agree	46	0.796	16
CTPFUOFR3	1	0	18	14	13	Some What Agree	46	0.765	17
COMR3	1	4	6	26	9	Agree	46	0.765	18
COMR2	2	7	2	22	13	Agree	46	0.761	19
COMR7	4	1	13	11	17	Strongly Agree	46	0.757	20
COMR10	0	9	7	15	15	Agree/Strongly Agree	46	0.757	21
CTPFUOFR6	2	10	9	6	19	Strongly Agree	46	0.73	22
COMR15	4	4	8	18	12	Agree	46	0.73	23
COMR8	6	4	8	11	17	Strongly Agree	46	0.726	24
CTPFUOFR4	7	0	12	13	14	Strongly Agree	46	0.717	25
CTPFUOFR11	2	8	13	12	11	Some What Agree	46	0.696	26
COMR9	25	0	4	6	11	Disagree	46	0.504	27
CTPUOFR12	19	5	16	4	2	Disagree	46	0.448	28
FREQUENCY	88	68	179	430	522		1,287		
%	6.84%	5.28%	13.91%	33.41%	40.56%		100%		

Source: Author, (2022)

Statistics on the sampled respondents on compliance to set standards in resource utilisation shows that of the 1,287 responses, 1,131 (88 %) comply to set standards in resource utilisation and 156 (12%) do not. This shows high compliance levels to set standards in resource utilisation. Out of 368 responses, the findings showed that 302 (82.1%) follow procedure in the acquisition of material resources. This shows high compliance levels to material resource acquisition

procedures. The study findings revealed and confirmed from the statistical data that school managers' compliance with laid down procedures in the acquisition and utilisation of financial and material resources in public secondary schools is very high (81.1%). However, the researcher noted some inconsistencies in adherence to procedures in seven (7) public secondary schools translating into 15.2 %. Aggregated statistics on the findings further revealed that public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the Procurement Act of 2020 are always followed by most school managers.

4.7.1 Monitoring and control of material resources (from store officer projection)

Table 4.21 shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under Monitoring and control of material resources by the store's officer. The mean ranged from 2.24 to 3.41 while the standard deviation ranged from 1.268 to 1.813. Skewness ranged from -0.550 to 0.668 while Kurtosis ranged from -1.870 to -0.701. This, therefore, shows that the skewness and kurtosis of all the items were within the range of -2 and 2. The results indicated that none of the variables deviated from Normality.

Table 4.21: Monitoring and control of material resources

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
You rarely ensure stock is checked for defects or no defects, the right quantity and right quality upon receipt before entering into the stock book	46	2.24	1.268	.552	-.701
You always issue goods received vouchers for items received	46	3.04	1.813	-.091	-1.870
Sometimes ensure that any officer that collects the items or goods from stores writes his or her name and signs in the requisition book for the items.	46	2.93	1.794	.054	-1.855
You sometimes display material identification (Bin cards and labels) and ensure material codification	46	2.28	1.471	.668	-1.068
You sometimes wait for approval from your supervisor before issuing items from stores	46	3.41	1.613	-.550	-1.368
Often cross-check for the return of borrowed materials	46	2.80	1.695	.206	-1.687
There is an inventory control system in place	46	2.93	1.638	.014	-1.651
Valid N (listwise)	46				

Source: Author, (2022)

4.7.1.1 Monitoring and control of material resources from store officer projection

- i. *Always perform monthly and quarterly stock check:* The statistics in the data on this variable were above 2 as reflected by a mean score of 2.24. This shows that of the sampled respondents 5 (10.9%) strongly agreed, 5 (10.9%) agreed, 6 (13%) somewhat agreed, 2 (4.3%) were not sure and 28 (60.9%) disagreed that they always perform monthly and quarterly stock checks.

- ii. ***Always reminded to prepare monthly inventory reports for management use:*** The statistics in the data on this variable were also slightly above 3 as reflected by a mean score of 3.04. This shows that of the sampled respondents 5 (10.9%) strongly agreed, 6 (13%) agreed, 6 (13%) were not sure and 29 (63%) disagreed that they are always reminded to prepare monthly inventory reports for management use.

- iii. ***Reconcile stock book quantities with physical quantities, Analyze, Interpret, and investigate the resulting variance:*** The statistics in the data on this variable were above 2 as reflected by the mean score of 2.93. This shows that of the sampled respondents 11 (23.9%) strongly agreed, 11 (23.9%) agreed, 4 (8.7%) somewhat agreed 2 (4.3%) were not sure and 18 (39.1%) disagreed that they always reconcile stock book quantities with physical quantities, Analyze, Interpret and investigate the resulting variance.

- iv. ***Ensure Goods Received Vouchers are raised on all goods received:*** The statistics in the data on this variable were above 4 as reflected by a mean score of 2.28. This shows that of the sampled respondents 5 (10.9%) strongly agreed, 4 (8.7%) agreed, 2 (4.3%) somewhat agreed, 10 (21.7%) were not sure and 25 (54.3%) disagreed that they ensure that Goods Received Vouchers are raised on all goods received.

- v. ***Ensure goods received are matched with the actual invoices from the supplier:*** The statistics in the data on this variable were above 3 as reflected by a mean score of 3.04. This shows that of the sampled respondents 10 (21.7%) strongly agreed, 5 (10.9%) agreed, 5 (10.9%) somewhat agreed, 5 (10.9%) were not sure and 21(45.7%) disagreed that they always ensure that goods received are matched with the actual invoices from the supplier.

- vi. ***Receive stock from vendors via the procurement section; inspect supplies and accept or reject some depending on quality and specification given vis-à-vis purchase orders etc.:*** The statistics in the data on this variable were above 2 as reflected by a mean score of 2.80. This shows that of the sampled respondents 14 (30.4%) strongly agreed, 9 (19.6%) agreed, 5 (10.9%) were not sure and 18 (39.1%) disagreed that they receive stock from vendors via the procurement section; inspect supplies and accepts or rejects some depending on quality and specification are given vis-à-vis purchase orders, etc.

- vii. ***Maintain a database for all stocks and reports on any shortages, losses, obsolete items, and expired stocks for the attention of superiors:*** The statistics in the data on this variable were above 2 going by the mean score of 2.93. This shows that of the sampled respondents

7 (15.2%) strongly agreed, 7 (15.2%) agreed, 5 (10.9%) somewhat agreed, 8 (17.4%) were not sure and 19 (41.3%) disagreed that they maintain a database for all stocks and reports on any shortages, losses, obsolete items, and expired stocks for the attention of superior.

Analysed statistical data on the sampled respondents on monitoring and control of material resources show that out of the 322 responses, 126 (39 %) economically account for their practices in resource usage and 196 (61 %) do not. Cumulatively this shows low levels of monitoring and control of material resources in the sampled public secondary schools from store officer projection.

4.8 Accountability tools and compliance (from store officer projection)

Table 4.22 shows the mean, standard deviation, skewness, and kurtosis, for each of the variables under Stores accountability tools and compliance. The mean ranged from 2.24 to 4.02 while the standard deviation ranged from 1.268 to 1.813. Skewness ranged from -1.377 to 0.753 while Kurtosis ranged from -1.870 to 0.730. This, therefore, shows that the skewness and kurtosis of all the items were within the range of -2 and 2. The results indicated that none of the variables deviated from normality.

Table 4.22: Stores accountability tools and compliance (Descriptive Statistics)

Item	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
(1) You have and use a store ledger	46	4.02	1.358	-1.377	.730
(2) You do not fully know how to use the stores' ledger	46	2.65	1.741	.195	-1.863
(3) You have and use a requisition book always	46	3.02	1.706	-.176	-1.766
You consistently use the requisition when distributing and disposing of items from stores	46	3.33	1.674	-.455	-1.536
You rarely ensure stock is checked for defects or no defects, the right quantity and right quality upon receipt before entering into the stock book	46	2.24	1.268	.552	-.701
You always issue goods received vouchers for items received	46	3.04	1.813	-.091	-1.870
Sometimes ensure that any officer that collects the items or goods from stores writes his or her name and signs in the requisition book for the items.	46	2.93	1.794	.054	-1.855
You sometimes display material identification (Bin cards and labels) and ensure material codification	46	2.28	1.471	.668	-1.068
You sometimes wait for approval from your supervisor before issuing items from stores	46	3.41	1.613	-.550	-1.368
Often cross-check for the return of borrowed materials	46	2.89	1.703	.120	-1.722
There is an inventory control system in place	46	2.93	1.638	.014	-1.651
(a) You carry out inventory stock-taking once a month	46	2.96	1.414	-.019	-1.274
(b) You report to the supervisor on stock levels once a term	46	3.46	1.456	-.587	-1.007
(c) You only request restocking when stock levels are almost finished	46	2.37	1.540	.753	-1.018
Valid N (listwise)	46				

Source: Author, (2022)

4.8.1.1 *Store Office accountability tools and compliance (from store officer projection)*

- i. ***Have and use a store ledger:*** The statistics in the data on this variable were slightly above 4 as reflected by a mean score of 4.02. This shows that of the sampled respondents 24 (52.2%) strongly agreed, 11 (23.9%) agreed, 5 (10.9%) somewhat agreed and 6 (13%) disagreed that they have and use a store ledger.
- ii. ***Know how to use the store ledger very well:*** The statistics in the data on this variable were above 2 as reflected by a mean score of 2.65. This shows that of the sampled respondents 9 (19.6%) respondents strongly agreed, 13 (28.3%) agreed, 1 (2.2%) was not sure and 23 (50%) disagreed that they know how to use the store's ledger very well.
- iii. ***Always use a requisition book:*** The statistics in the data on this variable were significantly above 3 as reflected by the mean score of 3.02. This shows that of the sampled respondents 12 (26.1%) strongly agreed, 13 (28.3%) agreed, 2 (4.3%) somewhat agreed, 2 (4.3%) were not sure and 17 (37%) disagreed that they have, and use a requisition book always.
- iv. ***Use the requisition when distributing and disposing of items from stores:*** The statistics in the data on this variable were significantly above 3 as reflected by a mean score of 3.33. This shows that of the sampled respondents 16 (34.8%) strongly agreed, 12 (26.1%) agreed, 2 (4.3%) somewhat agreed, 3 (6.5%) were not sure and 13 (28.3%) disagreed that they consistently use the requisition when distributing and disposing of items from stores.
- v. ***Always ensure stock is checked for defects or no defects, the right quantity, and the right quality upon receipt before entering into the stock book:*** The statistics in the data on this variable were slightly above 2 as reflected by a mean score of 2.24. This shows that of the sampled respondents 3 (6.5%) strongly agreed, 3 (6.5%) agreed, 16 (34.8%) somewhat agreed, 4 (8.7%) were not sure and 20 (43.5%) disagreed that they always ensure stock is checked for defects or no defects, right quantity and right quality upon receipt before entering into the stock book.
- vi. ***Issue goods received vouchers for items received;*** The statistics in the data on this variable were slightly above 3 as reflected by a mean score of 3.04. This shows that of the sampled respondents 17 (37%) strongly agreed, 6 (13%) agreed, 3 (6.5%) somewhat agreed, 2 (4.3%) were not sure and 18 (39.1%) disagreed that they always issue goods received vouchers for items received.

- vii. ***Always ensure that any officer that collects the items or goods from stores writes his or her name and signs in the requisition book for the items:*** The statistics in the data on this variable were above 2 as reflected by a mean score of 2.95. This shows that of the sampled respondents 16 (34.8%) strongly agreed, 5 (10.9%) agreed, 3 (6.5%) somewhat agreed, 4 (8.7%) were not sure and 18 (39.1%) disagreed that they always ensure that any officer that collects the items or goods from stores writes his or her name and sign in the requisition book for the items.
- viii. ***Display material identification (Bin cards and labels) and ensure material codification:*** The statistics in the data on this variable were slightly above 2 as reflected by a mean score of 2.28. This shows that of the sampled respondents 5 (10.9%) strongly agreed, 7 (15.2%) agreed, 6 (13%) somewhat agreed, 6 (13%) were not sure and 22 (47.8%) disagreed that they always display material identification or codify on the materials, especially books.
- ix. ***Wait for approval from your supervisor before issuing items from stores:*** The statistics in the data on this variable were above 3 as reflected by a mean score of 3.41. This shows that of the sampled respondents 16 (34.8%) strongly agreed, 13 (28.3%) agreed, 2 (4.3%) somewhat agreed, 4 (8.7%) were not sure and 11 (23.9%) disagreed that they always wait for approval from your supervisor before issuing items from stores.
- x. ***Often cross-check for the return of borrowed materials:*** The statistics in the data on this variable were above 2 as reflected by a mean score of 2.89. This shows that of the sampled respondents 16 (34.8%) strongly agreed, 13 (28.3%) agreed, 2 (4.3%) somewhat agreed, 4 (8.7%) were not sure and 11 (23.9%) disagreed that they often cross-check for the return of borrowed materials.
- xi. ***There is an inventory control system in place:*** The statistics in the data on this variable were above 2 as reflected by a mean score of 2.93. This, therefore, means that from the sampled respondents 12 (26.1%) strongly agreed, 8 (17%) agreed, 6 (13%) somewhat agreed, 5 (10.9%) were not sure and 15 (32.6%) disagreed that there is an inventory control system in place.
- xii. ***Carry out inventory stock taking once a month:*** The statistics in the data on this variable were slightly above 2 as reflected by a mean score of 2.96. This shows that of the sampled respondents 8 (17.4%) strongly agreed, 10 (21.7%) agreed, 10 (21.7%) somewhat agreed,

8 (17.4%) were not sure and 10 (21.7%) disagreed that they carry out inventory stock taking once a month.

- a) ***Report to the supervisor on stock levels once a term:*** The statistics in the data on this variable were slightly above 3 as reflected by a mean score of 3.46. This shows that of the sampled respondents 14 (30.4%) strongly agreed, 13 (28.3%) agreed 7 (15.2%) somewhat agreed, 4 (8.7%) were not sure and 8 (17.4%) disagreed that they report to the supervisor on stock levels once a term.
- b) ***Request for restocking when stock levels are almost finished:*** The statistics in the data on this variable were slightly above 4 as reflected by a mean score of 2.37. This shows that of the sampled respondents 8 (17.4%) strongly agreed, 5 (10.9%) agreed, 2 (4.3%) somewhat agreed, 12 (26.1%) were not sure and 19 (41.3%) disagreed that they only request for restocking when stock levels are almost finished.

The collected and analysed statistical data on the sampled respondents on monitoring and control of material resources shows that of the 644 responses, 250 (39 %) monitor and control material resources and 394 (61 %) do not. in this case, collected and analysed data show average levels of monitoring and control of material resources in the sampled public secondary schools from store officer projection.

4.9. Relationship between managerial accountability and performance

4.9.1 Data Analysis to Test the Hypotheses

The Latent variables partial least-squares (LVPLS) were used for the evaluation of both error in construct measurement and the error in hypothesized relations. The LVPLS estimation enforces significantly less conditions for its usage. The only requirement is that the basic assumptions of least squares estimation are fulfilled. This estimation is distribution-free, poses no identification difficulties, it is suitable for small samples (< 300) and allows the same freedom with respect to measurement scales as ordinary regression.

The role of LVPLS is for the examination of a set of relations amongst constructs that are unable to be measured directly. The actual LVPLS model has a composition of two parts: the measurement model and the structural model. The measurement model stipulates the relations between the manifest variables and the constructs which they represent whilst the structural model stipulates the relations amongst the latent variables (or constructs).

Three general sets of methodological considerations are relevant to the application of PLS in a management research context: (1) assessment of the reliability and validity of measures; (2) determining the appropriate nature of the relationships between measures and constructs; and (3) interpretation of path coefficients, and determining model adequacy. Each one of the above is dealt with below.

The PLS estimation proceeds in two stages. In stage one, the latent variables are estimated in an iterative manner by finding successive approximations. The algorithm contains alterations between the measurement and structural model where parameter estimates in either part of the model are preserved as fixed as the parameters in the other part are estimated. In stage two, upon convergence, the measurement and structural relations are estimated by OLS regression using the latent variables estimated in stage one. As can be seen, the LVPLS model is essentially a path analytic model with latent variables. The measurement model permits the evaluation of whether the constructs are measured with satisfactory accuracy. As with LISREL, convergent and discriminant validity can be evaluated within the PLS model. The convergent validity of a construct is measured by the ratio of the amount of variance due to measurement error ('average variance extracted').

The general rule states that a ratio of less than 0.50 is judged inappropriate as more variance is due to an error. Satisfactory discriminant validity among constructs is obtained when the squared correlation between any two constructs is statistically less than the average variance extracted. This gives an implication that the variance shared between any two constructs is less than the variance shared between a construct and its indicators. Before proper assessment of path coefficients in the structural model, an examination of the indicator reliability, internal consistency reliability, discriminant validity, and convergent validity of the reflective measurement model is to ensure they are satisfactory (Wong, 2013).

Part A: School Manager Accountability and Student Performance

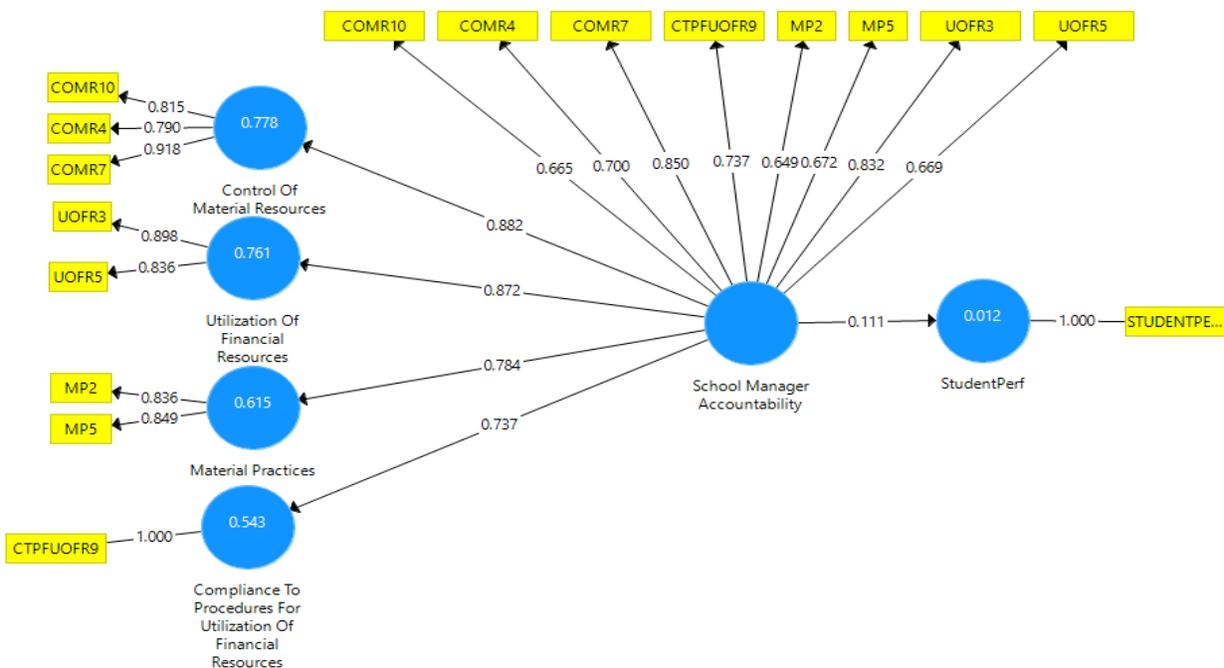
4.9.1.1 Indicator Reliability

Since reliability is a condition for validity, indicator reliability is first checked to ensure the associated indicators have much in common that is captured by the latent construct. After the examination of the outer loadings for the latent variable of School Manager accountability, four of the indicators had outer loadings above the 0.7 threshold level (Hair et al, 2013). A loading relevance test was performed for the indicators COMR10 (factor loading 0.665), MP2 (factor loading 0.649), MP5 (factor loading 0.672), and UOFR5 (factor loading 0.669) to see if they

should be retained in the model. In a loading relevance test, problematic indicators are deleted only if their removal from the PLS model leads to an increase of AVE and composite reliability for the latent variables that the items represent. Since AVE is above 0.5 and composite reliability is above 0.7, COMR10, MP2, MP5, and UOFR5 were not removed from the model to maintain content validity.

The remaining indicators (COMR4, COMR7, CTPFUOFR9, and UOFR3) are retained because their outer loadings are all 0.7 or higher. Out of a total of 65 indicators, only 8 met the condition for inclusion in the model. The resulting path model estimation is presented in Figure 4.2. The model has used Gender, Age, and Education as control variables.

Figure 4:2: PLS Path Model Estimation



Source: Author, (2022)

4.9.1.2 Outer Loadings and Internal Consistency Reliability

Composite reliability rather than Cronbach's alpha is used when using PLS-SEM to evaluate the measurement model's internal consistency reliability. Internal consistency reliability is traditionally checked using Cronbach's alpha. Nevertheless, it is not appropriate for PLS-SEM due to its sensitivity to the number of items on the scale, and this measure is also known for generating severe underestimation when applied to PLS path models (Werts, Linn, and Joreskog, 1974). Previous studies suggest that a threshold level of 0.60 or higher is required for demonstrating satisfactory composite reliability in exploratory research (Bagozzi and Yi, 1988)

but not exceeding the 0.95 level (Hair et al., 2013). Composite reliability for the construct School Manager Accountability is shown in Table 4.23 below to be 0.898, indicating high levels of internal consistency reliability (Nunnally and Bernstein, 1994).

Table 4.23: Outer Loadings and Internal Consistency Reliability

Construct (Latent Variable)	Composite Reliability	Outer Loadings
School Manager Accountability	0.898	
COMR10		0.665
COMR4		0.700
COMR7		0.850
CTPFUOFR9		0.737
MP2		0.649
MP5		0.672
UOFR3		0.832
UOFR5		0.669

Source: Author, (2022)

4.9.1.3 Convergent Validity and Discriminant Validity

Convergent validity is the model's ability to explain the indicator's variance. The Average Variance Extracted (AVE) is able to provide evidence for convergent validity (Fornell and Larcker, 1981). The AVE for the latent variable School Manager Accountability is shown in Table 4.35 and it is above the required minimum level of 0.50 (Bagozzi and Yi, 1988). As a result, School Manager Accountability has a high level of convergent validity.

The Fornell-Larcker principle happens to be a common and conservative approach to assess discriminant validity and is also applicable to the PLS-SEM. In establishing the discriminant validity, the square root of the AVE of each latent variable must be greater than the latent variable correlations (LVC). Table 4.24 clearly shows that discriminant validity is met as the square root of AVE for School Manager Accountability is greater than the corresponding LVC.

Table 4.24: Convergent Validity and Discriminant Validity

	School Manager Accountability	Student Performance
School Manager Accountability	.725	
Student Performance	.111	1.000

Source: Author, (2022)

Note: The values of the AVE values are shown in the diagonal and the non-diagonal is the latent variable correlation (LVC).

4.9.1.4 Coefficient of Determination (R^2)

The main focus of the structural model evaluation is the assessment of the coefficient of determination (R^2). Student Performance is the key construct of interest. Based on the PLS Path model estimation diagram Figure 4.26. The overall R^2 is seen to be strong. The threshold values of 0.25, 0.5, and 0.7 are regularly used in the description of a weak, moderate, and strong coefficient of determination (Hair et al., 2013). In this instance, School Manager Accountability explained 1.2% of the variance of the endogenous construct of Student Performance. The R^2 value is 0.012.

4.9.1.5 Path Coefficient

From Table 4.25 It is seen that the School Manager Accountability variable has a moderate and significant effect on Student Performance (0.111).

Table 4.25: Path Coefficient

	Path	Path Coefficient	t - value	p-value
H3	School Manager Accountability > Student Performance	0.111	0.707	0.480

Source: Author, (2022)

4.9.1.6 Predictive Relevance (Q^2)

Doing an assessment of Stone-Geisser's predictive relevance (Q^2) is vital as it does the checking of the data points of the indicators in the reflective measurement model of endogenous construct that can be predicted accurately. This is achievable through the use of the blindfolding procedure in Smart PLS. Student Performance is the endogenous construct in the model and it is therefore selected for running the Blindfolding Algorithm.

The following table gives a summary of the results. It is observed that the proposed model has fair predictive relevance for the endogenous variable of School Manager Accountability. Chin (1998) suggests that a model demonstrates good predictive relevance when its Q^2 value is greater than zero (see Table 4.26).

Table 4.26: Results of Coefficient of Determination (R^2) and Predictive Relevance (Q^2)

Endogenous Latent Variable	R^2 Value	Q^2 Value
<i>Student Performance</i>	0.012	- 0.038

Source: Author, (2022)

4.9.1.7 The f^2 Effect Size

The last step in the structural model evaluation is an assessment of the effect of a specific exogenous construct on the endogenous construct if it is deleted from the model. This becomes achievable through the examination of the f^2 effect sizes. Following Cohan’s (1988) guideline which stipulates that f^2 values of 0.02, 0.15, and 0.35 are interpreted as small, medium, and large effect sizes, respectively, it can be said that in general the exogenous variables have very small (Power) effect sizes on the endogenous variables (see Table 4.27)

Table 4.27: Results of f^2

	Student Performance	
	Path Coefficient	f^2 Effect Size
School Manager Accountability	0.111	0.012

Source: Author, (2022)

4.9.1.8 Summary of Hypothesis Testing

The hypothesis was supported, and the result is summarized in Table 4.28. *School Manager Accountability (Head Teacher)* was found to have a significant effect on Student Performance (H1).

Table 4.28: Summary of Hypotheses Testing

	Hypotheses	Supported?
		(Yes/No)
H1	School Manager Accountability-> Student Performance	Yes

Source: Author, (2022)

The results above in **Table 4.28** reveal the following:

H1 – There was a moderate positive relationship between the variable School Manager Accountability (Head Teacher) and Student Performance ($t=0.707$, $p > 0.05$). Hence, this hypothesis was weakly supported.

Part B: School Manager Accountability and Student Performance (Accounts Assistant projection)

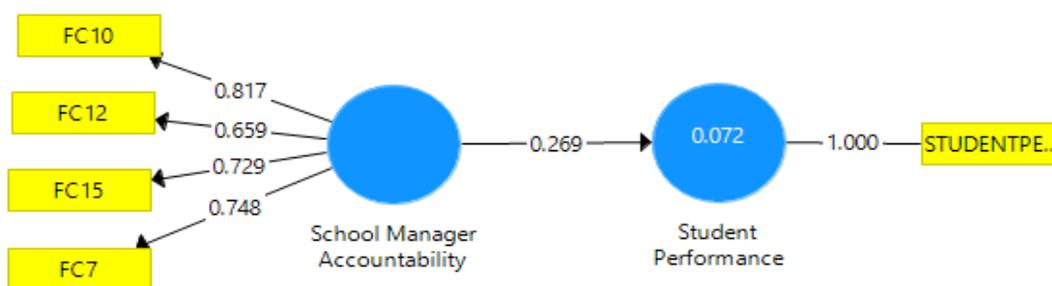
4.9.1.9 Indicator Reliability

Since reliability is a condition for validity, indicator reliability is first checked to ensure the associated indicators have much in common that is captured by the latent construct. After the

examination of the outer loadings for the latent variable of School Manager accountability, three of the indicators had outer loadings above 0.7 threshold level (Hair et al, 2013).

A loading relevance test was performed for the indicator FC12 (factor loading 0.659) to see if it should be retained in the model. In a loading relevance test, problematic indicators should be deleted only if their removal from the PLS model leads to an increase of AVE and composite reliability for the latent variables that the items represent. Since AVE is above 0.5 and composite reliability is above 0.7, FC12 was not removed from the model to maintain content validity. The remaining indicators are retained because their outer loadings are all 0.7 or higher. Out of a total of 23 indicators, only 4 met the condition for inclusion in the model. The resulting path model estimation is presented in Figure 4.3. The model has used Gender, Age and Education as control variables.

Figure 4.3: PLS Path Model Estimation



Source: Author, (2022)

4.9.1.10 Outer Loadings and Internal Consistency Reliability

Composite reliability rather than Cronbach’s alpha is used when using PLS-SEM to evaluate the measurement model’s internal consistency reliability. Internal consistency reliability is traditionally checked using Cronbach’s alpha. Nevertheless, it is not appropriate for PLS-SEM due to its sensitivity to the number of items on the scale, and this measure is also known for generating severe underestimation when applied to PLS path models (Werts, Linn, and Joreskog, 1974).

Previous studies suggest that a threshold level of 0.60 or higher is required for demonstrating satisfactory composite reliability in exploratory research (Bagozzi and Yi, 1988) but not exceeding the 0.95 level (Hair et al., 2013). Composite reliability for the construct School Manager Accountability is shown in Table 4.29 to be 0.828, indicating high levels of internal consistency reliability (Nunnally and Bernstein, 1994).

Table 4.29: Outer Loadings and Internal Consistency Reliability

Construct (Latent Variable)	Composite Reliability	Outer Loadings
School Manager Accountability	0.828	
FC7		0.748
FC10		0.817
FC12		0.659
FC15		0.729

Source: Author, (2022)

4.9.1.11 Convergent Validity and Discriminant Validity

Convergent validity is the model’s ability to explain the indicator’s variance. The Average Variance Extracted (AVE) is able to provide evidence for convergent validity (Fornell and Larcker, 1981). The AVE for the latent variable School Manager Accountability is shown in Table 4.29 and it is above the required minimum level of 0.50 (Bagozzi and Yi, 1988). As a result, School Manager Accountability has a high level of convergent validity. The Fornell-Larcker principle happens to be a common and conservative approach to assess discriminant validity and is also applicable to the PLS-SEM. In establishing the discriminant validity, the square root of the AVE of each latent variable must be greater than the latent variable correlations (LVC). Table 4.30 clearly shows that discriminant validity is met as the square root of AVE for School Manager Accountability is greater than the corresponding LVC.

Table 4.30: Convergent Validity and Discriminant Validity

	School Manager Accountability	Student Performance
School Manager Accountability	.741	
Student Performance	.269	1.000

Source: Author, (2022)

Note: The values of the AVE values are shown in the diagonal and the non-diagonal are the latent elements are the latent variable correlation (LVC).

4.9.1.12 Coefficient of Determination (R^2)

The main focus of the structural model evaluation is the assessment of the coefficient of determination (R^2). Student Performance is the key construct of interest. Based on the PLS Path model estimation diagram Figure 4.7. The overall R^2 is seen to be very weak. The threshold values of 0.25, 0.5, and 0.7 are regularly used in the description of a weak, moderate, and strong coefficient of determination (Hair et al., 2013). In this instance, School Manager Accountability explained 7.2% of the variance of the endogenous construct of Student Performance. The R^2 value is 0.072.

4.9.1.13 Path Coefficient

From Table 4.31 It is seen that the School Manager Accountability variable has a strong and significant effect on Student Performance (0.269).

Table 4.31: Significance Testing Results of the Structural Model Path Coefficients

	Path	Coefficient	t - value	p-value
H2	School Manager Accountability > Student Performance	0.269	3.847	0.000

Source: Author, (2022)

4.9.1.14 Predictive Relevance (Q^2)

Doing an assessment of Stone-Geisser’s predictive relevance (Q^2) is vital as it does the checking of the data points of the indicators in the reflective measurement model of endogenous construct that can be predicted accurately. This is achievable through the use of the blindfolding procedure in Smart PLS. Student Performance is the endogenous construct in the model and it is therefore selected for running the Blindfolding Algorithm. The following table gives a summary of the results. It is observed that the proposed model has fair predictive relevance for the endogenous variable of School Manager Accountability. Chin (1998) suggests that a model demonstrates good predictive relevance when its Q^2 value is greater than zero (see Table 4.32).

Table 4.32: Results of Coefficient of Determination (R^2) and Predictive Relevance (Q^2)

Endogenous Latent Variable	R2 Value	Q2 Value
Student Performance	0.072	0.015

Source: Author, (2022)

4.9.1.15 The f^2 Effect Size

The last step in the structural model evaluation is an assessment of the effect of a specific exogenous construct on the endogenous construct if it is deleted from the model. This becomes achievable through the examination of the f^2 effect sizes. Following Cohan’s (1988) guideline which stipulates that f^2 values of 0.02, 0.15, and 0.35 are interpreted as small, medium, and large effect sizes, respectively, it can be said that the exogenous variable School Manager Accountability has a very small (Power) effect size on the endogenous variable Student Performance (see Table 4.33)

Table 4.33: Results of f^2

	Student Performance	
	Path Coefficient	f^2 Effect Size
School Manager Accountability	0.269	0.078

Source: Author, (2022)

4.9.1.16 Summary of Hypothesis Testing

The hypothesis was supported, and the result is summarized in Table 4.34. *School Manager Accountability (Account)* was found to have a significant effect on Student Performance (H2).

Table 4.34: Summary of Hypotheses Testing

	Hypotheses	Supported?
		(Yes/No)
H2	School Manager Accountability-> Student Performance	Yes

Source: Author, (2022)

The results above in Table 4.34 reveal the following:

H2 – There was a significant positive relationship between the variable School Manager Accountability (Account Assistant projection) and Student Performance ($t=3.847$, $p < 0.01$). Hence, this hypothesis was supported. This can be interpreted that, higher values of School Manager Accountability are associated with higher values of Student Performance i.e., schools with higher School Manager Accountability have higher Student Performance.

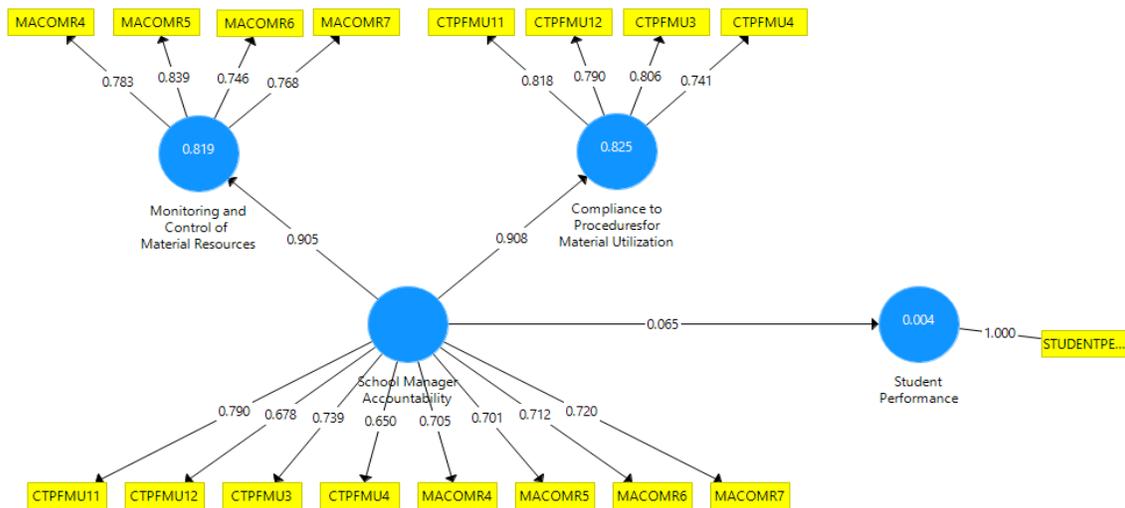
Part C: School Manager Accountability and Student Performance (From Store Officer projection)

4.9.1.17 Indicator Reliability

Since reliability is a condition for validity, indicator reliability is first checked to ensure the associated indicators have much in common that is captured by the latent construct. After the examination of the outer loadings for the latent variable of school manager accountability, six of the indicators had outer loadings above the 0.7 threshold level (Hair et al, 2013). A loading relevance test was performed for the indicators CTPFMU12 (factor loading 0.678) and CTPFMU4 (factor loading 0.650) to see if they should be retained in the model. In a loading relevance test, problematic indicators should be deleted only if their removal from the PLS model leads to an increase of AVE and composite reliability for the latent variables that the items represent. Since AVE is above 0.5 and composite reliability is above 0.7, CTPFMU12 and CTPFMU4 were not removed from the model to maintain content validity.

The remaining indicators are retained because their outer loadings are all 0.7 or higher. The resulting path model estimation is presented in Figure 4.4 Twelve (12) items were deleted from the model because they had low loadings. The model has used Gender, Age, and Education as control variables.

Figure 4.4: PLS Path Model Estimation



Source: Author, (2022)

4.9.1.18 Outer Loadings and Internal Consistency Reliability

Composite reliability rather than Cronbach’s alpha is used when using PLS-SEM to evaluate the measurement model’s internal consistency reliability. Internal consistency reliability is traditionally checked using Cronbach’s alpha. Nevertheless, it is not appropriate for PLS-SEM due to its sensitivity to the number of items on the scale, and this measure is also known for generating severe underestimation when applied to PLS path models (Werts, Linn, and Joreskog, 1974). Previous studies suggest that a threshold level of 0.60 or higher is required for demonstrating satisfactory composite reliability in exploratory research (Bagozzi and Yi, 1988) but not exceeding the 0.95 level (Hair et al., 2013). Composite reliability for the construct School Manager Accountability is shown in Table 4.35 to be 0.892, indicating high levels of internal consistency reliability (Nunnally and Bernstein, 1994).

Table 4.35: Outer Loadings and Internal Consistency Reliability

Construct (Latent Variable)	Composite Reliability	Loadings
School Manager Accountability	0.892	
MACOMR4 Composite		0.783
MACOMR5		0.839
MACOMR6		0.746
MACOMR7		0.768
CTPFMU11		0.818
CTPFMU12		0.790
CTPFMU3		0.806
CTPFMU4		0.741

Source: Author, (2022)

4.9.1.19 Convergent Validity and Discriminant Validity

Convergent validity is the model's ability to explain the indicator's variance. The Average Variance Extracted (AVE) is able to provide evidence for convergent validity (Fornell and Larcker, 1981). The AVE for the latent variable School Manager Accountability is shown in Table 4.35 and it is above the required minimum level of 0.50 (Bagozzi and Yi, 1988). As a result, School Manager Accountability has a high level of convergent validity. The Fornell-Larcker principle happens to be a common and conservative approach to assess discriminant validity and is also applicable to the PLS-SEM.

In establishing the discriminant validity, the square root of the AVE of each latent variable must be greater than the latent variable correlations (LVC). Table 4.36 clearly shows that discriminant validity is met as the square root of AVE for School Manager Accountability is greater than the corresponding LVC.

Table 4.36: Convergent Validity and Discriminant Validity

	School Manager Accountability	Student Performance
School Manager Accountability	.789	
Student Performance	.114	1.000

Source: Author, (2022)

Note: The values of the AVE values are shown in the diagonal and the non-diagonal are the latent elements are the latent variable correlation (LVC).

4.9.1.20 Coefficient of Determination (R^2)

The main focus of the structural model evaluation is the assessment of the coefficient of determination (R^2). Student Performance is the key construct of interest. Based on the PLS Path model estimation diagram Figure 4.36. The overall R^2 is seen to be very weak. The threshold values of 0.25, 0.5, and 0.7 are regularly used in the description of a weak, moderate, and strong coefficient of determination (Hair et al., 2013). In this instance, School Manager Accountability explained 0.4% of the variance of the endogenous construct of Student Performance. The R^2 value is 0.004.

4.9.1.21 Path Coefficient

From Table 4.37 It is seen that the School Manager Accountability variable has an effect on Student Performance (0.065).

Table 4.37: Significance Testing Results of the Structural Model Path Coefficients

	Path	Coefficient	t - value	p-value
H3	School Manager Accountability > Student Performance	0.065	0.420	0.675

Source: Author, (2022)

4.9.1.22 Predictive Relevance (Q^2)

Doing an assessment of Stone-Geisser's predictive relevance (Q^2) is vital as it does the checking of the data points of the indicators in the reflective measurement model of endogenous construct that can be predicted accurately. This is achievable through the use of the blindfolding procedure in Smart PLS. Student Performance is the endogenous construct in the model and it is therefore selected for running the Blindfolding Algorithm.

The following table gives a summary of the results. It is observed that the proposed model does not have fair predictive relevance for the endogenous variable of School Manager Accountability. Chin (1998) suggests that a model demonstrates good predictive relevance when its Q^2 value is greater than zero (see Table 4.38).

Table 4.38: Results of Coefficient of Determination (R^2) and Predictive Relevance (Q^2)

Endogenous Latent Variable	R^2 Value	Q^2 Value
<i>Student Performance</i>	0.004	-0.047

Source: Author, (2022)

4.9.1.23 The f^2 Effect Size

The last step in the structural model evaluation is an assessment of the effect of a specific exogenous construct on the endogenous construct if it is deleted from the model. This becomes achievable through the examination of the f^2 effect sizes. Following Cohan's (1988) guideline which stipulates that f^2 values of 0.02, 0.15, and 0.35 are interpreted as small, medium, and large effect sizes, respectively, it can be said that in general the exogenous variables have very small (Power) effect sizes on the endogenous variables (see Table 4.39)

Table 4.39: Results of f^2

	Student Performance	
	Path Coefficient	f^2 Effect Size
<i>School Manager Accountability</i>	0.065	0.004

Source: Author, (2022)

4.9.1.24 Summary of Hypothesis Testing

The hypothesis was supported, and the result is summarized in Table 4.40. *School Manager Accountability (Stores)* was found to have an effect on Student Performance (H3).

Table 4.40: Summary of Hypotheses Testing

	Hypotheses	Supported?
		(Yes/No)
H3	School Manager Accountability-> Student Performance	Yes

Source: Author, (2022)

The results in **Table 4.40** above reveal the following:

H3 – There was no significant positive relationship between the variable School Manager Accountability (Stores) and Student Performance ($t=0.420$, $p>0.05$). Hence, this hypothesis was not supported.

4.10 Factor Analysis

Factor analysis was performed in order to reduce the number of variables from the initial 64 to 23 factors using a cut off loading of 0.45. The twenty-three factors were managerial accountability as the dependent variable and managerial accountability practices in financial and material resource allocation, control and utilisation of financial and material resources and compliance to laid down procedures in the utilisation of resources Economic resource utilisation as independent variables. Appendix 11 shows the factor analysis table.

4.11 Correlation Matrix

A correlation matrix was used to establish the strength and direction of the relationships between the variables in the study. Table 4.41 below shows the correlation matrixes for variables in relation to resource acquisition and utilisation as the dependent variable. The table indicated that there was a strong positive relationship between the acquisition of financial resources in school through School Fees and Government Grants ($r=0.320$, $p< 0.30$).

The table further indicated that there was another positive relationship between the acquisition of financial resources in school through School Fees and tuck shop sales ($r= - 0.132$ $p< 0.383$). Further, the table indicated a moderate positive relationship between the acquisition of financial resources in school through School Fees and school Hall hire ($r= -0.175$, $p < 0.245$).

Table 4.41: Correlation Matrix 1, With Dependent Variable, ‘on the acquisition of financial resources

		You acquire financial resources in school through School Fees	You acquire financial resources in school through Government Grants	Tuck Shop	Hall Hire	Production Unit	Civilian Day	-. Sale of Uniforms
You acquire financial resources in school through School Fees	Pearson Correlation	1	.320*	-.132	-.175	-.150	.083	.083
	Sig. (2-tailed)		.030	.383	.245	.318	.585	.585
	N	46	46	46	46	46	46	46
You acquire financial resources in school through Government Grants	Pearson Correlation	.320*	1	.238	.151	.152	-.777**	.124
	Sig. (2-tailed)	.030		.112	.317	.314	.000	.411
	N	46	46	46	46	46	46	46
- Tuck Shop	Pearson Correlation	-.132	.238	1	.230	.685**	-.273	-.273
	Sig. (2-tailed)	.383	.112		.124	.000	.066	.066
	N	46	46	46	46	46	46	46
- Hall Hire	Pearson Correlation	-.175	.151	.230	1	.364*	-.125	.318*
	Sig. (2-tailed)	.245	.317	.124		.013	.407	.031
	N	46	46	46	46	46	46	46
- Production Unit	Pearson Correlation	-.150	.152	.685**	.364*	1	-.186	-.186
	Sig. (2-tailed)	.318	.314	.000	.013		.215	.215
	N	46	46	46	46	46	46	46
- Civilian Day	Pearson Correlation	.083	-.777**	-.273	-.125	-.186	1	-.045
	Sig. (2-tailed)	.585	.000	.066	.407	.215		.764
	N	46	46	46	46	46	46	46
-. Sale of Uniforms	Pearson Correlation	.083	.124	-.273	.318*	-.186	-.045	1
	Sig. (2-tailed)	.585	.411	.066	.031	.215	.764	
	N	46	46	46	46	46	46	46

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

Source: Author (2022)

The Table indicated another moderate positive relationship between the acquisition of financial resources in school through School Fees and production unit ($r = -0.150$, $p < 0.318$). The table also indicated a weak positive relationship between the acquisition of financial resources in school through government grants and civilian day activities and the sale of school uniforms ($r = -0.777$, $p < 0.01$). The strength of the relationships reported above was based on the recommendations of Dancey and Laidley’s (2004) categorizations.

The correlation analysis was also done with the other dependent variables to establish the strength and direction of the relationships between the variables in relation to the dependent variable in the study. Table 4.42 below shows the correlation matrix for the seven (7) variables in relation to the dependent variable, compliance to laid down procedures.

Table 4.42: Correlation Matrix 2 with Dependent Variable, ‘compliance to laid down procedures

		You always use fundraised funds by following the procedures	You always follow laid down procedures in the use of government grants.	You always account for monies raised from fundraising activities	You ensure that financial resources are utilised as stipulated in the budget.	You utilise financial resources on the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc.	You use financial resources to maintain school surroundings and pay board workers.	You always ensure that limited available resources are used for the intended purpose in the provision of education.
You always use fundraised funds by following the procedures	Pearson Correlation	1	-.121	-.216	.062	-.178	-.197	-.033
	Sig. (2-tailed)		.423	.150	.684	.237	.190	.826
	N	46	46	46	46	46	46	46
You always follow laid down procedures in the use of government grants.	Pearson Correlation	-.121	1	.180	.061	.201	-.049	-.151
	Sig. (2-tailed)	.423		.232	.686	.181	.745	.318
	N	46	46	46	46	46	46	46
You always account for monies raised from fundraising activities	Pearson Correlation	-.216	.180	1	.139	.509**	.292*	.322*
	Sig. (2-tailed)	.150	.232		.358	.000	.049	.029
	N	46	46	46	46	46	46	46
You ensure that financial resources are utilised as stipulated in the budget.	Pearson Correlation	.062	.061	.139	1	.121	-.048	-.061
	Sig. (2-tailed)	.684	.686	.358		.422	.752	.687
	N	46	46	46	46	46	46	46
You utilise financial resources on the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc.	Pearson Correlation	-.178	.201	.509**	.121	1	.085	.145
	Sig. (2-tailed)	.237	.181	.000	.422		.572	.335
	N	46	46	46	46	46	46	46
You use financial resources to maintain school surroundings and pay board workers.	Pearson Correlation	-.197	-.049	.292*	-.048	.085	1	.700**
	Sig. (2-tailed)	.190	.745	.049	.752	.572		.000
	N	46	46	46	46	46	46	46
You always ensure that limited available resources are used for the intended purpose in the provision of education.	Pearson Correlation	-.033	-.151	.322*	-.061	.145	.700**	1
	Sig. (2-tailed)	.826	.318	.029	.687	.335	.000	
	N	46	46	46	46	46	46	46

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

Source: Author (2022)

Table 442 above indicated that a correlation was significant between using fundraised funds by following the procedures and following laid down procedures in the use of government grants. ($r = -0.121$, $p < 0.423$). The table also indicated that there was a correlation between using fundraised funds by following the procedures and accounting for monies raised from fundraising activities ($r = -0.216$, $p < 0.150$).

The Table further indicated that there was a significant correlation between using fundraised funds by following the procedures and ensuring that financial resources are utilised as stipulated in the budget. ($r = -0.62$, $p < 0.684$). Further, the table indicated that there was a correlation between using fundraised funds by following the procedures and utilisation of financial

resources on the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc. ($r = -0.178, p < 0.237$). The table further indicated that there was a correlation between using fundraised funds by following the procedures and use of financial resources to maintain school surroundings and paying board workers. ($r = -0.197, p < 0.190$). The table further also indicated that a correlation was significant between using fundraised funds by following the procedures and ensuring limited available resources are used for the intended purpose in the provision of education/ school performance ($r = -0.33, p < 0.826$).

Table 4.43: Correlation Matrix 3 with Dependent Variable, ‘compliance to laid down procedures

		You always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts.	You always ensure that the Budget practice procedure is in line with the MOE recommendations.	There is a signing procedure in place for any payment on the voucher and cheque.	(i) Sign off on funds for every activity in accordance with the budget	(ii) authorize the disbursement of school funds as stipulated in the budget
You always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts.	Pearson Correlation Sig. (2-tailed) N	1 46	.723** .000 46	-.228 .127 46	.296* .046 46	-.132 .381 46
You always ensure that the Budget practice procedure is in line with the MOE recommendations.	Pearson Correlation Sig. (2-tailed) N	.723** .000 46	1 46	-.229 .126 46	.108 .475 46	-.166 .269 46
There is a signing procedure in place for any payment on the voucher and cheque.	Pearson Correlation Sig. (2-tailed) N	-.228 .127 46	-.229 .126 46	1 46	-.219 .144 46	.275 .065 46
(i) Sign off on funds for every activity in accordance with the budget	Pearson Correlation Sig. (2-tailed) N	.296* .046 46	.108 .475 46	-.219 .144 46	1 46	.297* .045 46
(ii) authorize the disbursement of school funds as stipulated in the budget	Pearson Correlation Sig. (2-tailed) N	-.132 .381 46	-.166 .269 46	.275 .065 46	.297* .045 46	1 46

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

a. Cannot be computed because at least one of the variables is constant.

Source: Author (2022).

Table 4.43 above indicated that there was a weak positive correlation between ensuring that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts. and ensuring that the Budget practice procedure is in line with the MOE recommendations. ($r=0.723, p < 0.01$). The table also indicated that there was a significant correlation between ensuring that cash received by the school from other sources (such as

Production Unit), is recorded in the books of accounts. and having a signing procedure in place for any payment on the voucher and cheque ($r = -0.228, p < 0.127$). The table further indicated that there was a correlation between ensuring that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts. and signing off on funds for every activity in accordance with the budget ($r = -0.296, p < 0.46$). Further, the table indicated that there was a correlation between ensuring that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts. and authorisation of the disbursement of school funds as stipulated in the budget ($r = -0.132, p < 0.381$).

Table 4.44: Correlation Matrix 4 with Dependent Variable, ‘Material resource acquisition

		You acquire materials through Government supplies/donations	You acquire materials through stakeholders’ donations	You acquire materials through purchases that are made based on the annual plan schedule	You ensure that needed materials are procured on time
You acquire materials through Government supplies/donations	Pearson Correlation	1	.877**	-.023	-.284
	Sig. (2-tailed)		.000	.881	.056
	N	46	46	46	46
You acquire materials through stakeholders’ donations	Pearson Correlation	.877**	1	.202	-.143
	Sig. (2-tailed)	.000		.179	.344
	N	46	46	46	46
You acquire materials through purchases that are made based on the annual plan schedule	Pearson Correlation	-.023	.202	1	.329*
	Sig. (2-tailed)	.881	.179		.025
	N	46	46	46	46
You ensure that needed materials are procured on time	Pearson Correlation	-.284	-.143	.329*	1
	Sig. (2-tailed)	.056	.344	.025	
	N	46	46	46	46

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

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

Source: Author (2022)

Table 4.44 above indicated that there was a weak positive correlation between the acquisition of materials through Government supplies/donations and You acquire materials through stakeholders’ donations ($r = 0.877, p < 0.01$). The table also indicated that there was a correlation between the acquisition of materials through Government supplies/donations and the acquisition of materials through purchases which are made based on the annual plan schedule ($r = -0.23, p < 0.881$). The table further indicated that there was a significant correlation between the acquisition of materials through Government supplies/donations and ensuring that needed materials are procured in time ($r = -0.284, p < 0.56$).

Table 4.45: Correlation Matrix 5 with Dependent Variable, ‘Control of resource utilisation’

		You always involve your staff in the planning of material resource purchases	You always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved.	You always make follow ups and check material utilisation by responsible departments	You sometimes ensure that materials are protected from wastage and abuse.	You have an assigned body to control the availability and utilization of educational materials in the school.	You sometimes countersign on the store’s requisition book to authorise the release of materials from stores.	You monitor resource arrival, resource use, and resource storage and retrieval; and reapportion unused or under-used resources.
You always involve your staff in the planning of material resource purchases	Pearson Correlation	1	.673**	.474**	.350*	.270	.127	.615**
	Sig. (2-tailed)		.000	.001	.017	.069	.399	.000
	N	46	46	46	46	46	46	46
You always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved.	Pearson Correlation	.673**	1	.381**	.151	.420**	.145	.455**
	Sig. (2-tailed)	.000		.009	.316	.004	.337	.001
	N	46	46	46	46	46	46	46
You always make follow ups and check material utilisation by responsible departments	Pearson Correlation	.474**	.381**	1	.158	.206	.299*	.059
	Sig. (2-tailed)	.001	.009		.294	.170	.044	.697
	N	46	46	46	46	46	46	46
You sometimes ensure that materials are protected from wastage and abuse.	Pearson Correlation	.350*	.151	.158	1	.158	.452**	.499**
	Sig. (2-tailed)	.017	.316	.294		.294	.002	.000
	N	46	46	46	46	46	46	46
You have an assigned body to control the availability and utilization of educational materials in the school.	Pearson Correlation	.270	.420**	.206	.158	1	.680**	.492**
	Sig. (2-tailed)	.069	.004	.170	.294		.000	.001
	N	46	46	46	46	46	46	46
You sometimes countersign on the store’s requisition book to authorise the release of materials from stores.	Pearson Correlation	.127	.145	.299*	.452**	.680**	1	.221
	Sig. (2-tailed)	.399	.337	.044	.002	.000		.139
	N	46	46	46	46	46	46	46
You monitor resource arrival, resource use, and resource storage and retrieval; and reapportion unused or under-used resources.	Pearson Correlation	.615**	.455**	.059	.499**	.492**	.221	1
	Sig. (2-tailed)	.000	.001	.697	.000	.001	.139	
	N	46	46	46	46	46	46	46

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

Source” Author (2022)

Table 4.45 above indicated that there was a weak positive correlation between involving members of staff in the planning of material resource purchases and following laid down procedures in the procurement of teaching and learning materials due to the long processes involved ($r=0.673$, $p<0.01$). The table also indicated that there was a weak positive correlation between involving members of staff in the planning of material resource purchases and making follow ups and checking material utilisation by responsible departments ($r=0.474$, $p<0.01$). The table further indicated that there was a correlation between involving members of staff in the planning of material resource purchases and ensuring that materials are protected from wastage and abuse. ($r= -0.350$, $p<0.17$). Further, the table indicated that there was a correlation between involving members of staff in the planning of material resource purchases and having an assigned body to control the availability and utilization of educational materials in the school. ($r=0.270$, $p<0.69$). The table further indicated that there was a significant correlation between involving members of staff in the planning of material resource purchases and countersigning on the store’s requisition book to authorise the release of materials from stores. ($r=0.127$, $p<0.399$). The table further also indicated a weak positive correlation between involving

members of staff in the planning of material resource purchases and monitoring resource arrival, resource use, and resource storage and retrieval; and reappportioning unused or underused resources (r=0.615, p<0.01)

Table 4.46: Correlation Matrix 6 with Dependent Variable, ‘follow procedure in the procurement of material resources

		You ensure that all revenue received in school is promptly banked before being used.	Your school has a cheque register.	You Organise school board meetings and give financial reports at the beginning of the term.	You sometimes follow public accountability guidelines as stipulated in the Public Finance Management Act No. 1 of 2018 and the Procurement Act of 2020	You always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services.	You always review compliance with the existing Government financial regulations, instructions, and procedures;	You prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board.	You always ensure that the school budget is approved by the board before any spending is done as guided by the Government Decentralization Policy.
You ensure that all revenue received in school is promptly banked before being used.	Pearson Correlation Sig. (2-tailed) N	1 .229 46	.229 .126 46	.039 .798 46	.179 .234 46	.016 .914 46	.002 .988 46	.564** .000 46	.102 .502 46
Your school has a cheque register.	Pearson Correlation Sig. (2-tailed) N	.229 .126 46	1 .331 46	-.146 .331 46	-.177 .238 46	.053 .726 46	.300* .042 46	.462** .001 46	-.188 .210 46
You organise school board meetings and give financial reports at the beginning of the term.	Pearson Correlation Sig. (2-tailed) N	.039 .798 46	-.146 .331 46	1 .456 46	-.113 .456 46	.160 .287 46	-.104 .493 46	-.079 .603 46	.081 .594 46
You sometimes follow public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the procurement Act of 2020	Pearson Correlation Sig. (2-tailed) N	.179 .234 46	-.177 .238 46	-.113 .456 46	1 .456 46	-.150 .321 46	-.354* .016 46	.011 .944 46	.189 .207 46
You always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services.	Pearson Correlation Sig. (2-tailed) N	.016 .914 46	.053 .726 46	.160 .287 46	-.150 .321 46	1 .321 46	.493** .001 46	.151 .318 46	.240 .108 46
You always review compliance with the existing Government financial regulations, instructions, and procedures;	Pearson Correlation Sig. (2-tailed) N	.002 .988 46	.300* .042 46	-.104 .493 46	-.354* .016 46	.493** .001 46	1 .304 46	.155 .304 46	.087 .563 46
You prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board.	Pearson Correlation Sig. (2-tailed) N	.564** .000 46	.462** .001 46	-.079 .603 46	.011 .944 46	.151 .318 46	.155 .304 46	1 .775 46	.043 .775 46
You always ensure that the school budget is approved by the board before any spending is done as guided by the Government Decentralization Policy.	Pearson Correlation Sig. (2-tailed) N	.102 .502 46	-.188 .210 46	.081 .594 46	.189 .207 46	.240 .108 46	.087 .563 46	.043 .775 46	1 46

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

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

Source: Author (2022)

Table 4.46 above indicated that there was a correlation between ensuring that all revenue received in school is promptly banked before being used and a school having a cheque register ($r=0.229$, $p<0.126$). The table also indicated that there was a significant correlation between ensuring that all revenue received in school is promptly banked before being used and organising school board meetings and giving financial reports at the beginning of the term. ($r=0.039$, $p<0.798$).

The table further indicated that there was a positive correlation between ensuring that all revenue received in school is promptly banked before being used and following public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the Procurement Act of 2020 ($r= -0.179$, $p<0.234$). Further, the table indicated that there was a positive correlation between ensuring that all revenue received in school is promptly banked before being used and ensuring compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services. ($r=0.16$, $p<0.914$). The table further indicated that there was a positive correlation between ensuring that all revenue received in school is promptly banked before being used and reviewing compliance with the existing Government financial regulations, instructions, and procedures; ($r=0.02$, $p<0.988$). The table further indicated that there was a weak positive correlation between ensuring that all revenue received in school is promptly banked before being used and preparing a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board ($r=0.564$, $p<0.00$). The table further also indicated a significant correlation between ensuring that all revenue received in school is promptly banked before being used and ensuring that the school budget is approved by the board before any spending is done as guided by the Government Decentralization Policy. ($r=0.102$, $p<0.502$).

4.12 Linear regression

A linear regression was performed to establish the relationship between school manager accountability as the dependent variable and school performance as an independent variable using the following determinants: School manager accountability practices in financial and material resources acquisition, allocation, control, and utilisation and compliance to laid down procedures in the utilisation of resources as independent variables. The output from this analysis is shown in Table 4.47 below.

Table 4.47: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.925 ^a	.856	.692	.189

Source: Author, (2022)

a. Predictors: (Constant), Avoid flushing the toilet unnecessarily, School uses back-to-back printing, Always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved., Always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts., Acquire financial resources in school through Government Grants, School has a cheque register, Organise school board meetings and give financial reports at the beginning of the term., Always account for monies raised from fundraising activities, Sometimes follow public accountability guidelines as stipulated in the Public Finance Management Act No. 1 of 2018 and the procurement Act of 2020., Always follow laid down procedures in the use of government grants., Prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board. Tuck Shop, Always uses fundraised funds by following the procedures, Acquire materials through stakeholders' donations, Promotion of e-mail or electronic communication to departments (soft copy) You always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services., Ensure that all revenue received in school is promptly banked before being used., Always ensure that the Budget practice procedure is in line with the MOE recommendations., Teach students not to play with water in the toilet, Always review compliance with the existing Government financial regulations, instructions, and procedures; Limit in the allocation of stationary to each department, Always involve your staff in the planning of material resource purchases, Always make follow ups and check material utilisation by responsible departments, Acquire materials through Government supplies/donations

b. School manager accountability practices

The results indicate that the model's twenty-three (23) independent variables (Avoid flushing the toilet unnecessarily, School uses back-to-back printing, Always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved., Always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts., Acquire financial resources in school through Government Grants, The school has a cheque register. , Organise school board meetings and give financial reports at the beginning of the term., Always account for monies raised from fundraising activities, Sometimes follow public accountability guidelines as stipulated in the Public Finance Management Act No. 1 of 2018 and the Procurement Act of 2020., Always follow laid down procedures in the use of government grants., Prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education

Board. , Acquire additional financial resources through Tuck Shop sales, Always use fundraised funds by following the procedures, Acquire materials through stakeholders' donations, Promotion of e-mail or electronic communication to departments (soft copy), Always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services., Ensure that all revenue received in school is promptly banked before being used., Always ensure that the Budget practice procedure is in line with the MOE recommendations., Teach students not to play with water in the toilet, and Always review compliance with the existing Government financial regulations, instructions, and procedures; limit in the allocation of stationary to each department, Always involve your staff in the planning of material resource purchases, Always make follow-ups and check material utilisation by responsible departments, Acquire materials through Government supplies/donations) that were studied explain that only 85.6% of the total variation predict the School manager accountability as represented by the R^2 . This, therefore, means that the twenty-five (25) independent variables contribute about 85.6% towards the school manager accountability in relation to performance while other factors not studied in this research contribute 14.4% towards school manager accountability. The model relating to school manager accountability function as the dependent variable and the independent variables was significant. ($F=5.203$, $p < 0.001$. The output of this model is shown in Appendix 12

4.12.1 Hypothesis testing

This hypothesis was addressed by addressing the following multiple hypotheses as shown in Table 4.48 below

Table 4.48 Linear Regression of the Seven Independent Variables and Dependent Variable on School Manager Accountability

Hypotheses		t-value	t-value	t-value	t-value	t-value	p-value	p-value	p-value	p-value	p-value
H_{1 a}	Accountability practices in the acquisition and utilisation of financial and material resources have an influence on school performance	(1) 2.017	(2) 1.516	(3) 0.602	(4) 0.533	(5) -1.461	(1) 0.057 Supported	(2) 0.344 Not Supported	(3) 0.554 Not Supported	(4) 0.600 Not Supported	(5) 0.159 Not Supported
H_{1 b}	Accountability practices in acquisition and utilisation of financial and material resources have no influence on school performance						Not Supported	Supported	Supported	Supported	Supported
H_{2 a}	Control and allocation of financial and material resources have a bearing in resource accountability	(1) 3.302	(2) 1.427	(3) -2538	(4) -1.178	(5) 3.130	(1) 0.003 Supported	(2) 0.168 Not Supported	(3) 0.019 Supported	(4) 0.252 Not Supported	(5) 0.005 Supported
H_{2 b}	Control and allocation of financial and material resources have no bearing in resource accountability						Not Supported	Supported	Not Supported	Supported	Not Supported
H_{3 a}	Compliance with laid down procedures in the utilisation of resources has an influence on school performance,	(1) 3.860	(2) 2.610	(3) -3.684	(4) -2.542	(5) -3.319	(1) 0.001 Supported	(2) 0.016 Supported	(3) 0.001 Supported	(4) 0.019 Supported	(5) 0.003 Supported
H_{3 b}	Compliance with laid down procedures in the utilisation of resources has no influence on school performance,						Not Supported	Not Supported	Not Supported	Not Supported	Not Supported

Source: Author (2022)

Table 4.48 above shows that four out of the fifteen **hypotheses** are supported. These are analysed below.

The table indicated that there was a significant positive relationship between Accountability practices in financial and material resources utilisation on school performance and acquisition of financial resources in schools through Government Grants ($t= 2.017$, $p < 0.01$). The zero-order correlation between Accountability practices in financial and material resources utilisation on school performance and acquisition of financial resources in schools through Government Grants was 0.320 thus hypothesis 1_{a1} was not supported. The table also indicated that there was a significant relationship between Accountability practices in financial and material resources utilisation on school performance and acquisition of financial resources through Tuck shop sales ($t=1.516$, $p<0.01$). The zero-order correlation between Accountability practices in the acquisition and utilisation of financial and material resources on school performance and acquisition of financial resources through Tuck shop sale was -0.132 hence Hypothesis 1_{b2} was not supported.

The table further indicated that there was no significant relationship between Accountability practices in financial and material resources utilisation and material resources on school performance and use of fundraised funds by following the procedures ($t=0.602$, $p<0.01$). The zero-order correlation between the Accountability practices in financial and material resources utilisation on school performance and use of fundraised funds by following the procedures was 0.543 thus Hypothesis 1_{a3} was not supported.

The table further indicated that there was a weak positive relationship between Accountability practices in financial and material resources utilisation on school performance and acquisition of materials through stakeholders' donations ($t=0.543$, $p<0.01$). The zero-order correlation between Accountability practices in financial and material resources utilisation on school performance and acquisition of material resources through stakeholders' donations was 0.088 hence Hypothesis 1_{a4} was not supported. Further, the table indicated that there was no significant relationship between Accountability practices in financial and material resources utilisation on school performance and acquisition of materials resources through Government supplies/donations ($t=-1.461$, $p<0.01$). The zero-order correlation between the formation of a generational consciousness function and the attitudes of individuals was 0.280 thus Hypothesis 1_{a5} was not supported.

The table also shows that there was a significant positive relationship between Control and allocation of financial and material resources and involving members of staff in the planning of

material resource purchases ($t=3.302, p<0.01$). The zero-order correlation between Control and allocation of financial and material resources and involving members of staff in the planning of material resource purchases was -0.275 thus Hypothesis 2_{a1} was supported. Further, the table shows a significant positive relationship between Control and allocation of financial and material resources and ensuring that the Budget practice procedure is in line with the MOE recommendations ($t=3.130, p<0.01$). The zero-order correlation between Control and allocation of financial and material resources and ensuring that the Budget practice procedure is in line with the MOE recommendations was 0.317 thus Hypothesis 2_{a2} was supported.

The table indicated that there was a significant positive relationship between Control and allocation of financial and material resources and the preparation of a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board. ($t= -2.538, p < 0.01$). The zero-order correlation between Control and allocation of financial and material resources and preparation of a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board was -0.225 thus hypothesis 2_{a3} was supported.

The table also indicated that there was no significant relationship between Control and allocation of financial and material resources and organising of school board meetings and giving financial reports at the beginning of the term ($t=1.427, p<0.01$). The zero-order correlation between Control and allocation of financial and material resources and organising of school board meetings and giving financial reports at the beginning of the term was 0.208 hence Hypothesis 2_{a4} was not supported. The table further indicated that there was no significant relationship between Control and allocation of financial and material resources and limiting in the allocation of stationary to each department ($t=1.178, p<0.01$). The zero-order correlation between Control and allocation of financial and material resources and limiting in the allocation of stationary to each department was -0.237 thus Hypothesis 2_{a5} was not supported.

The table further indicated that there was a strong positive relationship between Compliance with laid down procedures in the utilisation of resources has an influence on school performance and always reviewing compliance with the existing Government financial regulations, instructions, and procedures; ($t=3.860, p<0.01$). The zero-order correlation between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and always review compliance with the existing Government financial regulations, instructions, and procedures was 0.142 hence Hypothesis 4_b was supported.

Further, the table indicated that there was a positive significant relationship between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and following public accountability guidelines as stipulated in the Public Finance Management Act No. 1 of 2018 and the Procurement Act of 2020. ($t=2.610, p<0.01$). The zero-order correlation between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and following public accountability guidelines as stipulated in the Public Finance Management Act No. 1 of 2018 and the Procurement Act of 2020 was -0.023 thus Hypothesis 3_{a2} was supported.

The table also shows that there was a significant positive relationship between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and following laid down procedures in the procurement of teaching and learning materials due to the long processes involved. follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved. ($t=3.684, p<0.01$). The zero-order correlation between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and following laid down procedures in the procurement of teaching and learning materials due to the long processes involved. follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved was -0.345 thus Hypothesis 3_{a3} was supported.

Further, the table shows a significant positive relationship between Compliance with laid down procedures in the utilisation of resources an influence on school performance, and following laid down procedures in the use of government grants. ($t=2.542, p<0.01$). The zero-order correlation between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and follow laid down procedures in the use of government grants was -0.220 thus Hypothesis 3_{a4} was supported.

The table indicated that there was a significant positive relationship between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and ensuring that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts ($t= 3.319, p < 0.01$). The zero-order correlation between Compliance to laid down procedures in the utilisation of resources has an influence on school performance and ensuring that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts was 0.265 thus hypothesis 3_{a5} was supported.

4.13 Evaluation of the assumptions of regression analysis

The assumptions of regression analysis were evaluated using the plots that were obtained from the SPSS output (refer to Appendices 11 to 13). Assumption of normality of error terms have been met. This implies that the error terms are not deviating very much from normality. The distribution of error terms above and below the zero line is even and random. The assumption of homoscedasticity has not been violated. The assumption of the independence of the error terms have been met. The assumption of linearity for all seven variables against the dependent variables has been met.

4.14 Managerial Accountability and School Performance

Performance of grade 12 learners by year - examination pass rates

Table 4.49: Provincial performance 2015 – 2019 - Grade 12 provincial overview (Copperbelt)

Year	Number of Candidates								
	Registered	Sat	Absent	School Certificate		Obtained GCE			
				%	Number	%	Number		
2015	35,377	35,514	813	44.46	15,344	47.76	16,483	7.79	2,687
2016	30,970	30,382	588	57.30	17,410	39.25	11,926	3.44	1,046
2017	30,662	30,224	438	60.38	18,248	36.81	11,125	2.82	851
2018	26,715	26,293	422	62.80	16,512	33.91	8,971	3.29	864
2019	27,626	27,032	394	66.10	17,869	31.36	8,477	2.54	686

Source: Author, (2022)

Table 4.50: Performance by schools in Mpongwe district

SCHOOL (MPONGWE DISTRICT)	Type	2015	2016	2017	2018	2019
		%	%	%	%	%
1 CHEERFUL BOARDING SEC SCH	GRZ	95.11	97.98	99.35	84.86	97.70
2 SHINING STAR SECONDARY	GRZ		36.23	42.24	26.19	41.78

Table 4.51: Performance by school in Mufulira districts

SCHOOL (MUFULIRA DISTRICT)	Type	2015	2016	2017	2018	2019
		%	%	%	%	%
3 MORNING HIGH SCHOOL	GRZ	44.4	78.36	96.38	96.13	94.47
4 BRIGHT STAR SECONDARY	GRZ		38.75	45.48	38.61	50.35
5 BLUE SKY SECONDARY	GRZ		47.57	41.98	59.87	54.90

Table 4.52: Performance by school in Kitwe district

SCHOOL (KITWE DISTRICT)	Type	2015	2016	2017	2018	2019
		%	%	%	%	%
6 GREAT SECONDARY SCHOOL	GRZ	49.93	63.03	94.18	74.21	85.50
7 CITY SECONDARY SCHOOL	GRZ	33.13	42.07	84.96	48.12	50.58
8 RISING STAR SECONDARY SCH	GRZ		61.16	75.11	59.90	55.14
9 BRIGHT FUTURE SECONDARY	GRZ		69.72	59.59	94.44	83.70
10 FUTURE STAR SECONDARY SCH	GRZ		55.56	95.24	84.62	57.63
11 SUNLIGHT SECONDARY SCH	GRZ		56.22	63.51	73.41	54.95

Table 4.53: Performance by schools in Luanshya district

SCHOOL (LUANSHYA DISTRICT)		Type	2015	2016	2017	2018	2019
			%	%	%	%	%
12	RAINBOW BOYS SECONDARY SCH	GRZ	58.81	85.06	84.80	85.00	89.03
13	WINGS GIRLS SEC. SCHOOL	GRZ	57.22	71.35	69.45	64.00	82.28
14	MORNING BIRD SECONDARY SCH	GRZ	41.73	50.84	54.38	51.40	58.85
15	GALAXY SECONDARY SCHOOL	GRZ	33.73	46.8	54.16	45.85	58.61
16	TWILIGHT STAR SEC SCHOOL	GRZ		30.00	46.53	57.47	51.67

Table 4.54: Performance by school in Kalulushi district

SCHOOL (KALULUSHI DISTRICT)		Type	2015	2016	2017	2018	2019
			%	%	%	%	%
17	MORNING GLORY SEC SCHOOL	GRZ	35.5	38.59	49.08	54.47	55.56
18	EXCELLENCE SECONDARY SCH	GRZ	23.7	42.86	58.94	50.51	53.66
19	HILL TOP SECONDARY SCHOOL	GRZ	43.7	68.06	74.40	73.89	90.14
20	WEST STAR SECONDARY SCHOOL	GRZ		54.11	48.58	54.64	47.66
21	ORANGE GROVE SECONDARY SCH	GRZ		61.44	56.63	69.28	49.76

Table 4.55: Performance by school in Chililabombwe district

SCHOOL (CHILILABOMBWE DISTRICT)		Type	2015	2016	2017	2018	2019
			%	%	%	%	%
22	GOLDEN KEY SECONDARY SCH	GRZ	47.91	56.65		57.58	60.52
23	VIBRANT SECONDARY SCHOOL	GRZ	33.75	50.74	66.54	52.13	55.56
24	STRAWBERRY SECONDARY SCH	GRZ		50.00	43.75	51.16	46.00

Table 4.56: Performance by school in Ndola district

SCHOOL (NDOLA DISTRICT)		Type	2015	2016	2017	2018	2019
			%	%	%	%	%
25	BANANA SECONDARY SCHOOL	GRZ	43.44	39.13	50.71	49.66	79.07
26	MANGO SECONDARY SCHOOL	GRZ	28.42	35.02	47.95	48.49	55.59
27	WISDOM SECONDARY SCHOOL	GRZ	41.75	54.10	45.15	48.48	44.29
28	DIGITAL SECONDARY SCHOOL	GRZ	40.54	62.59	49.18	66.98	80.52
29	DIVINE GIRLS' TECHNICAL SEC	GRZ	98.07	100.00	100.00	100.00	100.00
30	CREST HILL SECONDARY SCHOOL	GRZ	59.48	64.26	60.48	54.25	52.19

Table 4.57: Performance by school in Masaiti district

SCHOOL (MASAITI DISTRICT)		Type	2015	2016	2017	2018	2019
			%	%	%	%	%
31	TIMBERLINE SECONDARY SCHOOL	GRZ	49.25	83.06	84.45	98.15	96.34
32	BLUE VALLEY SECONDARY SCHOOL	GRZ	36.81	33.33	54.96	51.33	17.54
33	MOON LIGHT SECONDARY SCHOOL	GRZ	40.31	83.10	60.78	67.80	97.83
34	HIGHLAND SECONDARY SCHOOL	GRZ	13.73	30.08	46.15	44.44	36.61
35	GOAL BOARDING SECONDARY SCH	GRZ	87.47	85.03	87.90	78.52	89.01
36	STEPPING STONE SECONDARY SCH	GRZ		48.93	52.02	39.63	37.93

Table 4.58: Performance by school in Chingola district

SCHOOL (CHINGOLA DISTRICT)		Type	2015	2016	2017	2018	2019
			%	%	%	%	%
37	GLADIATOR SECONDARY SCHOOL	GRZ	44.89	63.54	83.69	91.67	80.63
38	KINGS COURT SECONDARY SCH	GRZ		50.00	51.46	54.23	52.89
39	CRUISE MISSILE SECONDARY SCH	GRZ			57.88	64.88	37.43
40	CRESCENT HEIGHT SECONDARY	GRZ		47.13	53.45	51.95	51.35
41	TASK FORCE COMBINED	GRZ					51.72

Table 4.59: Performance by school in Lufwanyama district

SCHOOL (LUFWANYAMA)		Type	2015	2016	2017	2018	2019
			%	%	%	%	%
42	HEROES SECONDARY SCHOOL	GRZ	36.74	69.19	100.00	88.29	90.60
43	APPLE SECONDARY SCHOOL	GRZ	19.1	31.82	64.62	70.37	25.35
44	HOPE VALLEY SECONDARY SCH	GRZ		100.00	35.71	34.48	36.36
45	WINNERS SECONDARY SCHOOL	GRZ		45.93	78.75	65.00	23.53
46	ROSE DALE SECONDARY SCHOOL	GRZ		88.57	82.09	83.58	14.74

Source: Author, (2022)

The results in Tables 4.50 to 4.59 show sampled schools drawn from all the districts in Copperbelt province and the data collected was compared with the one at the Provincial Education Office in Ndola Copperbelt province on learner performance for the past five (5) years. Below is Table 4.60 showing the school performance Index in percentage for the above period. Comparing the individual school managers' overall accountability in relation to learner performance from the 46 sampled school managers, cumulative statistical data results show high levels of accountability for 33 (71.7%) school managers while 13 (28.3%) showed low levels of accountability with the pass rates in the years under review below 50% on average showing a downward learner performance as shown in Table 4.60 below.

From the statistics analysed, it does not clearly show that where school manager accountability was high, learner performance or pass rate was also high. It is in this vein that the researcher concluded that there is no relationship between school manager accountability and performance as shown in Table 5.1. In schools like Winners Secondary School, the school manager accountability record was high but learner performance or pass rate was low. It is in reference to this performance that this research established that there is no relationship between school manager accountability and learner performance. In most cases, performance is based on the caliber or quality of the learners enrolled.

Table 4.60: School Performance Index (%) for five years (2015 - 2019)

S/N	SCHOOL	PERFORMANCE INDEX (%)					MEAN
		2015	2016	2017	2018	2019	
1	CHEERFUL SOUTH BOARDING SEC	95.11	97.98	99.35	84.86	97.7	95.00
2	SHINING STAR SECONDARY SCHOOL		36.23	42.24	26.19	41.78	36.61
3	MORNING SECONDARY SCHOOL	44.4	78.36	96.38	96.13	94.47	81.95
4	BRIGHT STAR SECONDARY SCHOOL		38.75	45.48	38.61	50.35	43.30
5	BLUE SKY SECONDARY SCHOOL		47.57	41.98	59.87	54.9	51.08
6	GEAT SECONDARY SCHOOL	49.93	63.03	94.18	74.21	85.5	73.37
7	CITY SECONDARY SCHOOL	33.13	42.07	84.96	48.12	50.58	51.77
8	RISING SUN SECONDARY SCHOOL		61.16	75.11	59.9	55.14	62.83
9	BRIGHT FUTURE SECONDARY SCHOOL		69.72	59.59	94.44	83.7	76.86
10	FUTURE STAR SECONDARY SCHOOL		55.56	95.24	84.62	57.63	73.26
11	SUNLIGHT SECONDARY SCHOOL		56.22	63.51	73.41	54.95	62.02
12	RAINBOW BOYS SECONDARY SCH	58.81	85.06	84.8	85	89.03	80.54
13	WINGS GIRLS SEC. SCHOOL	57.22	71.35	69.45	64	82.28	68.86
14	MORNING BIRD SECONDARY SCHOOL	41.73	50.84	54.38	51.4	58.85	51.44
15	GALAXY SECONDARY SCHOOL	33.73	46.8	54.16	45.85	58.61	47.83
16	TWILIGHT SECONDARY SCHOOL		30	46.53	57.47	51.67	46.42
17	MORNING GLORY SECONDARY SCHOOL	35.5	38.59	49.08	54.47	55.56	46.64
18	EXCELLENCE SECONDARY SCHOOL	23.7	42.86	58.94	50.51	53.66	45.93
19	HILL TOP SECONDARY SCHOOL	43.7	68.06	74.4	73.89	90.14	70.04
20	WEST STAR SECONDARY SCHOOL		54.11	48.58	54.64	47.66	51.25
21	ORANGE GROVE SECONDARY SCHOOL		61.44	56.63	69.28	49.76	59.28
22	GOLDEN KEY SECONDARY SCHOOL	47.91	56.65		57.58	60.52	55.67
23	VIBRANT SECONDARY SCHOOL	33.75	50.74	66.54	52.13	55.56	51.74
24	STRAWBERRY SECONDARY SCHOOL		50	43.75	51.16	46	47.73
25	BANANA SECONDARY SCHOOL	43.44	39.13	50.71	49.66	79.07	52.40
26	MANGO SECONDARY SCHOOL	28.42	35.02	47.95	48.49	55.59	43.09
27	WISDOM SECONDARY SCHOOL	41.75	54.1	45.15	48.48	44.29	46.75
28	DIGITAL SECONDARY SCHOOL	40.54	62.59	49.18	66.98	80.52	59.96
29	DIVINE GIRLS' TECHNICAL SEC SCHOOL	98.07	100	100	100	100	99.61
30	CREST HILL SECONDARY SCHOOL	59.48	64.26	60.48	54.25	52.19	58.13
31	TIMBERLINE SECONDARY SCHOOL	49.25	83.06	84.45	98.15	96.34	82.25
32	BLUE VALLEY SECONDARY SCHOOL	36.81	33.33	54.96	51.33	17.54	38.79
33	MOONLIT SECONDARY SCHOOL	40.31	83.1	60.78	67.8	97.83	69.96
34	HIGHLAND SECONDARY SCHOOL	13.73	30.08	46.15	44.44	36.61	34.20
35	GOAL BOARDING SECONDARY SCH	87.47	85.03	87.9	78.52	89.01	85.59
36	STEPPING STONE SECONDARY SCHOOL		48.93	52.02	39.63	37.93	44.63
37	GLADIATOR SECONDARY SCHOOL	44.89	63.54	83.69	91.67	80.63	72.88
38	KINGS COURT SECONDARY SCHOOL		50	51.46	54.23	52.89	52.15
39	CRUISE MISSILE SECONDARY SCHOOL			57.88	64.88	37.43	53.40
40	CRESCENT HEIGHT SECONDARY SCHOOL		47.13	53.45	51.95	51.35	50.97
41	TASK FORCE COMBINED SCHOOL					51.72	51.72
42	HEROES SECONDARY SCHOOL	36.74	69.19	100	88.29	90.6	76.96
43	APPLE DAY SECONDARY SCHOOL	19.1	31.82	64.62	70.37	25.35	42.25
44	HOPE VALLEY SECONDARY SCHOOL		100	35.71	34.48	36.36	51.64
45	WINNERS SECONDARY SCHOOL		45.93	78.75	65	23.53	53.30
46	ROSE DALE SECONDARY SCHOOL		88.57	82.09	83.58	14.74	67.25
YEARLY PERFORMANCE INDEX (%) MEAN		45.87%	53.36%	65.83%	63.55%	60.38%	

Source: Author (2022)

Table 4.61 Copperbelt grade 12 performance index for the last five years (2015- 2019)

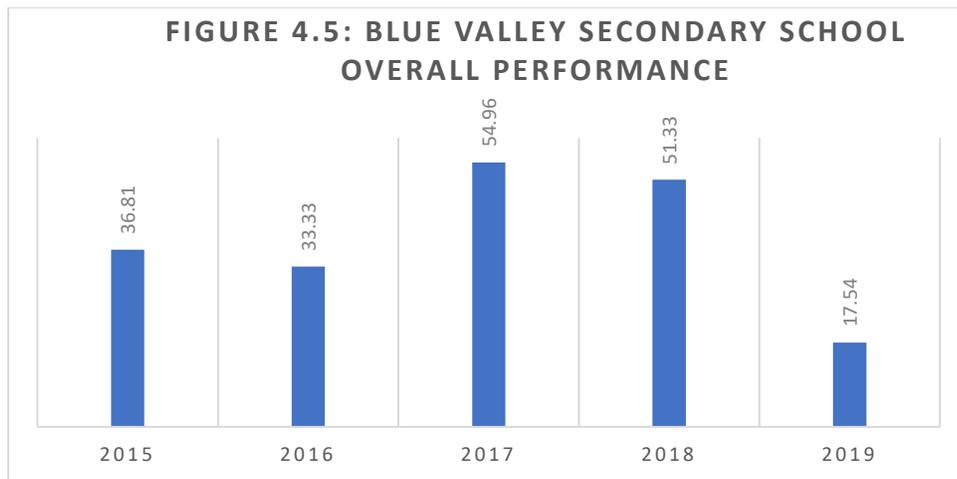
YEAR	Performance Index (%)
2015	45.87
2016	58.36
2017	64.83
2018	63.55
2019	60.38
MEAN	58.59

Source: Author (2022)

Table 4.61 above shows a summary of learner performance in relation to school manager accountability in the Copperbelt province with an average mean of 58.59 % over the past five years (2015-2019). Based on the data gathered it has been established by the aggregated variables that school manager accountability is not linked to learner performance. Despite some arguments that link performance of learners in the fastest-improving schools to their strict adherence to accountability practices.

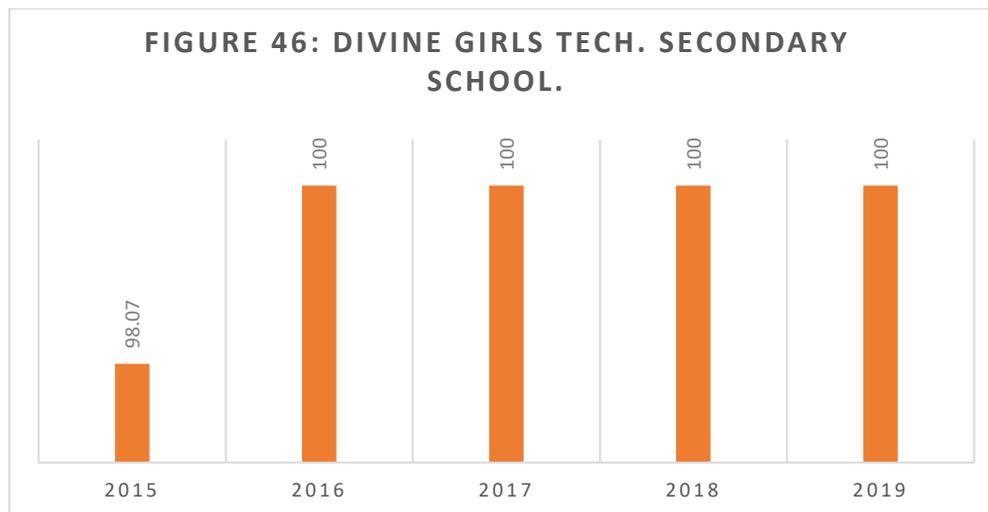
For example, Grissmer et al. (2000) argued that the linkage of standards, testing, and accountability led Texas and North Carolina schools to progress at a faster rate in student achievement. For example, in 2019, Bright Future Secondary School in Kitwe was able to record a record high of 83.70%. From the distribution of the data set in the category of unaccountable school managers, Bright Future Secondary School appeared to be an outlier. For the past two (2) that the new school manager took over, results have been improving from 59 % in 2017 to 83.70% in 2019. In the same year, Rose Dale's secondary was the lowest with a pass percentage of only 14.74 %.

From the cumulative statistical data and the individual sample from the schools, it had shown that the school has a challenge in ensuring accountability in adherence to laid down procedures in the procurement and utilisation of education materials. Statistical data on the study reveal that there is a trend on the performance of the learners. Although Bright Future Secondary School in Kitwe district was able to score over 80%, it had a backlog of poor performances from 2015 to 2018. For example; Blue Valley had the same school manager for the period under review and Bright Future Secondary School has had a new school manager for just two (2) years.



Source: Author, (2022)

Statistical data collected shows that from 2015 the lowest that Divine Girls’ Technical Secondary School recorded is 98% in 2015 then, the pass percentage went up to 100% from 2016 to 2019. The accountability of school managers around the same period was generally high. The actual statistical analysis shows high levels of accountability 35 (76%) of the 46 schools visited and 13 (28.3 %) of the schools recorded a downward learner outcome in examinations during the period under review. Divine Girls Technical Secondary School is the only school on the Copperbelt that has been able to consistently maintain the same pass record for four consecutive years. Figure 4.6 illustrates the pass rate for this institution.



Source: Author, (2022)

4.15 Summary

Aggregated statistics on all variable shows high levels of school managers' accountability. For example, aggregated statistics on following procurement procedures as stipulated in the Procurement Act when procuring education materials showed high levels of 85% and statistical

data from Table 4.7 established that board workers are paid from available financial resources in school. Aggregated statistics from Table 4.6 on the acquisition of financial resources show that all schools acquire financial resources through school fees and government grants (100%.)

Statistical data in Table 4.6 show that school managers acquire additional funds through Tuck-shop sales, Room /Hall hire, and production unit. It also revealed that schools do not acquire financial resources through the sale of school uniforms and civilian /career days. This also means that there is a high compliance level with the Government directive for schools not to acquire additional financial resources through the sale of school uniforms or the so-called civilian/ careers day.

Table 4.7 shows high (88.7%) compliance levels to following procedure in the utilisation of financial resources in public secondary schools while 21.3 % do not follow procedures in the utilisation of financial resources. Statistical data in Table 4.8 show high compliance levels (84.2%) to financial procedural practices among school managers. It also shows that some school managers do not consistently adhere to procedures on the utilisation of material resources which marred or jeopardized the attainment of educational goals. Material resource statistics in Table 4.9 show that all school managers acquire material resources through Government supplies, stakeholders' donations, and school purchases. Table 4.10 shows high compliance levels (82.1%) to material resource acquisition procedures among school managers and statistical data from Table 4.13 show a slightly high level (65%) of compliance with managerial accountability practices.

Statistics on accountability and economic usage of stationary in Table 4.15 show high economic accountability levels in the usage of stationery and accountability and economic usage of water Table 4.16 shows high levels of economic accountability in the usage of water in the sampled secondary schools. The aggregated statistics on accountability and economic usage of electricity in Table 4.17 showed high levels of economic accountability on the use of electricity in the sampled secondary schools and Table 4.18 on accountability and economic practices show high levels of accountability on economic practices among school managers. Statistics demonstrated that accountable school managers were capable of improving the results of their institutions regardless of the number of learners. For example; statistical data collected shows that from 2015 the lowest that Divine Girls' Technical secondary school. has recorded 98% in 2015 then, the pass percentage went up to 100% from 2016 to 2019. It is the only school on the Copperbelt

that has been able to consistently maintain the same pass record for four consecutive years. Figure 4.9 illustrates the pass rate for this institution. This shows that the school manager is very accountable as can be seen from individual school records from all the departments. The researcher explored school managers' accountability practices in financial and material resource utilisation and procedures in the procurement of material resources. Despite schools following laid down procedure as stipulated in the Procurement Act of 2020, seven (7) schools deviated from the norms of procurement as can be seen in Table 4.12. which shows high levels of compliance by the school manager with minimal deviations. School managers use tools such as Asset registers, store ledgers, payment vouchers, goods received vouchers, store requisition, bank reconciliations, receipt books, bin cards, cash books, bank statements, and cheque registers for monitoring material and financial resource utilisation respectively.

Data analysis established that School managers control financial and material resources through accounting for, monitoring, and reappropriating resources when necessary, during the specified time cycle. Table 4.19 shows that financial resources are allocated according to the budget and as requested by departments. On the levels of managerial accountability compliance to set standards.

Statistical data show that schools duly record in the store's ledger all the goods received in stores and all the goods issued from stores. Statistical findings revealed also that store officers carry out a stock count under the supervision of the school manager and all differences between recorded and actual quantities were explained and presented in a stock-taking statement signed by the store officer and the school managers termly. Statistics revealed also that Shining Star Secondary, Apple Day Secondary, Bright Future Secondary, Winners Secondary, West Star Secondary, Orange Grove Secondary, Blue Valley Secondary, Highland Secondary, Stepping Stone Secondary, Rose Dale Secondary, and Hope Valley Secondary stores officers had not updated their store's ledgers concerning the items received and utilised in school. This means that these schools (23.91%) were unable to account for the material resources received and utilised in school. Statistical data on compliance to set standards in resource utilisation, Table 4.21 shows high compliance levels to set standards in resource utilisation.

4.16 Projection of the next chapter

The subsequent chapter provides a thorough and detailed discussion of what has been highlighted in given in chapter five this chapter is.

CHAPTER FIVE

DISCUSSION ON RESEARCH FINDINGS

5.1 Introduction

This chapter critically discusses the research findings in light of the research questions used in the study and in relation to the relevant theory (Tetlock's accountability theory) and reviewed literature. It also draws conclusions from previous studies regarding the adopted theory and the research findings of this study.

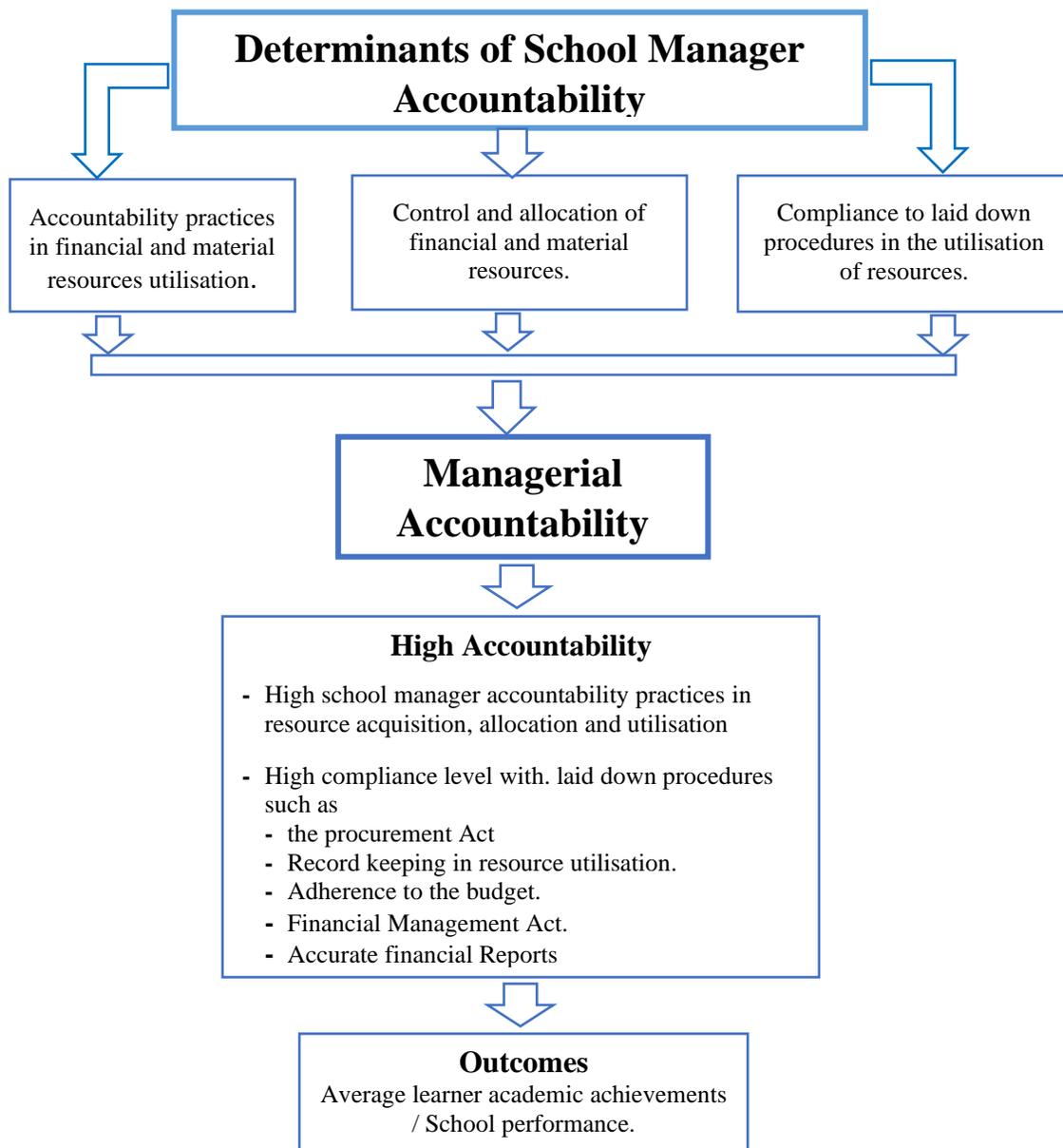
5.2 Discussion of the research outcomes

This section discusses the findings aligned with the research questions after analysing the data collected. In addition, the discussions are explained through the accountability theory lens developed by Tetlock and the conceptual framework developed by the researcher. This is on the basis that the theory enables the prediction and explanation of school manager accountability practices and their behaviour. (Glaser & Strauss, 2012). Anchoring the study on Tetlock's accountability theory facilitated the analysis of findings based on policy assumptions that underpin school manager accountability practices and implications on school performance. In the same line of thought, there are speculations that school education boards (SEBs) indirectly influence school activities, classroom processes (Leithwood, Harris & Hopkins, 2008), and ultimate educational achievement.

The conceptual framework of the study presented the interpretation and the analytical lens through which the synthesis of ideas in this discussion was anchored. As a tool to scaffold research, it, therefore, assisted the researcher in making meaning of subsequent findings on school manager accountability practices in financial and material resource utilisation and implications on school performance and recognized the contributions of other factors to the overall academic performance.

The conceptual framework established the theoretical interactions and interrelationships between accountability variables thus explaining the effect of managerial accountability on school performance. In this quantitative study, the researcher included all the variables in this study and tested the independent variables to see how each of the independent variables influences (or not) the dependent variable Managerial accountability. The variables/determinants included; Accountability practices in financial and material resources utilisation, Control and allocation of financial and material resources, and Compliance with

laid down procedures in the utilisation of resources which led to Managerial accountability which in turn leads to either high accountability as shown in the model below.



Source: Author (2022)

The model above shows high levels of managerial accountability practices in financial and material resource utilisation and high compliance levels with laid down procedures. In spite of high school manager accountability levels, school performance was not positively influenced as the outcome has shown average learner academic achievements/ school performance.

It was generally noted in literature that high managerial accountability leads to high school performance. The outcome of this study has shown that it is not always true that high

managerial accountability leads to high school performance. In some cases, other factors are at play which influence almost opposite effects. In this case and from literature, school managers seemed to have concentrated on regulatory accountability. Regulatory accountability is to focus on compliance to relevant laws and regulations surrounding aspects of accountability (Darling-Hammond, 2004). In this study, the focus was typically on inputs and processes within the school rather than on the performance side of accountability. Schools in this regard are required to complete various reports and forms which must be submitted to higher-level authorities, such as the district office or even the provincial office or national office (Rosenkvist, 2010; Skedsmo & Huber, 2019).

Performance accountability focuses more on school outcomes, represented here by school performance. Performance accountability is product-driven rather than process-driven (Brill et al., 2018). Further, literature revealed that performance accountability 's main objective is to hold schools accountable for the academic performance of the learners based on either national or international standardised assessments (Brill, Grayson, Kuhn & O'Donnell, 2018; Rosenkvist, 2010; Skedsmo & Huber, 2019) and changes the focus of interest from education processes and inputs to education results. The outcome of this study agrees with the literature reviewed as indicated by Blunt's (1990) opinion that: it is not the availability of these resources alone that guarantees the effective performance of the school, but their adequacy and effective utilisation.

5.2.1 School Managers' acquisition of Financial and material resources in Secondary Schools

The study sought to explore school managers' accountability practices and procedures in the acquisition of financial and material resources in public secondary schools in Zambia.

5.2.1.1 School Managers' acquisition of financial resources in Secondary Schools

The study explored school managers' accountability practices and procedures in the acquisition of financial resources in public secondary schools of the Copperbelt province of Zambia. The study findings from the aggregated statistical data revealed and confirmed that school managers acquire financial resources from school fees, tuck shop sales, production unit, and room/hall hire. Table 4.6 shows that all the 46 (100%) sampled secondary schools acquire financial resources through school fees, 30 (65%) of the 46 sampled schools acquire additional financial resources through Tuck-shop sales, 19 (41%) through production unit, and 12 (26%) through Room /Hall hire.

The findings further established that all the 46 (100%) secondary schools sampled do not acquire additional financial resources through the sale of school uniforms and civilian/career days. Baghdady and Zaki (2019) confirmed in their study findings that public secondary schools in Zambia acquire financial resources from school fees, government grants, and fundraising activities such as Tuck shop sales, production unit and room/hall hire. Further, Nzikako and Warue (2018) postulated that seeking resources from external donor funding, local fundraising, and community participation can be employed as resource acquisition strategies.

Based on the findings, the researcher concluded on this research question that financial resource acquisition is the core source of sustainable resource availability in secondary schools. In the same line, Awuor (2015) in his findings observed that financial resources acquired through income generating activities are found to be positively related to the internal efficiency of the schools.

The researcher further established that various methods of resource acquisition such as Tuck shop sales and production unit have been adopted in public secondary schools. Various scholars including Chikati (2011) identified the above-mentioned methods of income-generating in schools.

5.2.1.2 School managers' accountability in the utilisation of financial resources in public secondary schools

The researcher in this case sought to establish school managers' accountability practices in the utilisation of financial resources in public secondary schools. In order to thoroughly assess the utilization of financial resources in public secondary schools, the researcher investigated policies and procedures involved in the utilization of public financial resources. The study considered policies and procedures as an important aspect of the utilization of public financial resources. It was found that the utilization of public financial resources in public secondary schools was tied to regulations and procedures that are provided under the various education guidelines.

The Public Finance Management Act No. 1 of 2018, the Public Procurement Act of 2020, The Anti- Corruption Commission Act, the National Audit Act, the Anti-Money Laundering Act, and the government circulars are some of the policy documents that are affected by the use of public financial resources and that the documents primarily existed to provide an independent,

objective and consulting service aimed at fostering attainment of the Ministry's primary goals and objectives. This is achieved through among others, rigorous appraisal of internal controls, governance and risk management systems (MoE-School Grant Guidelines, 2022). The findings revealed that financial resources are not used as per wish but tied to government policies, a lot of procedures are engaged, paperwork is done and once completed, signatories sign, the school manager approves and checks, and then payments are made.

Furthermore, document analysis of the utilization guidelines outlines that procedures are engaged before the utilization of any public financial resource in public secondary schools. The research findings further revealed that before the school utilizes public financial resources on any goods or services, the following procedure should be considered:

- ❖ The user department should request such goods or services on an internal requisition form to the procurement unit.
- ❖ The procurement unit in turn will source the supply from the cheapest would-be supplier through a tender of inquiry.
- ❖ Would be supplier issue a pro forma invoice or a quotation to the school quoting the:
 - a). Price
 - b). Quantity
 - c). Quality of goods or services
 - d). Other terms, such as delivery period or guarantee of the goods.
- ❖ The school may choose the cheapest quoted supplier and arrange for delivery of the goods or services.
- ❖ The supplier may deliver goods or services before payment or afterward depending on the terms agreed upon.
- ❖ If goods are delivered before payment, the supplier should issue an invoice to the school demanding payment for the goods delivered.
- ❖ The supplier should also issue a delivery note indicating the quality, quantity and condition of the goods delivered to the schools (MoE-School Grant Guidelines, 2022).

However, the current research findings revealed that school managers diligently allocate and utilise financial resources in public secondary schools with only a handful failing to follow laid down procedures as indicated by the results in Table 4.21. Aggregated statistical data in Table 4.7 on the utilisation of financial resources had shown that out of the 414 responses,

256 (62%) follow procedure in the utilisation of financial resources and 158 (38%) do not. The findings further, show high compliance levels with following procedures in the utilisation of financial resources in public secondary schools.

The findings are supported by Dunn (2005) who contended that internal controls are an integral part of careful financial management in every school setting. The researcher on financial utilisation concluded that all these procedures and policies provide internal controls in financial resource utilisation. Internal controls provide a system of checks and balances to detect financial errors and irregularities in a timely fashion. Most internal controls are designed and used as measures to prevent mistakes from occurring or to correct operational or recording errors.

5.2.1.3 Material resources acquisition and utilisation in secondary schools.

The researcher in this case sought to establish how school managers acquire and utilise material resources in public secondary schools of the Copperbelt province of Zambia. The study findings revealed that material resources in public secondary schools in Zambia are acquired through Government textbook distribution programmes, stakeholders' donations, and school purchases. Table 4.9 shows that out of the 184 responses, 123 (66.8%) were Government material resource supplies and stakeholder donations while 61 (33.2%) were school purchases. The research findings further revealed that 39 (84.8%) school managers scrupulously account for material resources received in school through the use of bin cards, stores ledger, Goods Received Vouchers, Stores requisition and Goods Issue Vouchers.

The finding shows high levels of material resource accountability in the sampled public secondary schools. These findings and several other pieces of literature as highlighted in the literature review show that school managers follow laid down procedures in the acquisition and utilisation of material resources as stipulated in some pieces of legislation such as the Procurement Act of 2020 despite 7 (15.2%) school managers not following the stipulated procedures as highlighted. However, this shows high compliance levels.

5.2.1.4 Accountability and economic usage of education resources in secondary schools

The researcher observed from the findings that in the school system, accountability is usually linked to the management of scarce resources of education and that it is the responsibility of the school managers to ensure prudent utilization of available resources for the accomplishment of the set goals. Findings have shown that integrating accountability in the

school management processes helps to improve service delivery and control indiscipline in school thereby increasing efficiency in the system. Therefore, administrators should recognize that accountability in education is an essential ingredient that is intertwined with subordinates within the organizational framework (Nakpodia & Okeimute, 2011).

The researcher noted that in the school system, part of the integral pre-requisites to be put in place towards the actualization of the educational goals and objectives requires adequate provision of resources, maximum utilization, and appropriate management of education resources to avoid wastages and improve the quality of the teaching-learning process in the academic environment. The concept of scarce resources is an economic one that attempts to rationalize spending in order to avoid wastage. Educational resource wastage implies the inefficient utilization of educational resources to achieve educational goals.

The accountability and economic usage of education resources such as stationary, water, electricity, and managerial accountability practices, Research findings in Table 4.15 showed high economic accountability levels in the usage of stationary in public secondary schools sampled. On accountability and economic usage of water in public secondary schools, research findings in Table 4.16 revealed high levels of economic accountability in the usage of water in public secondary schools sampled. Collected statistical data in Table 4.17 on accountability and economic usage of electricity, research findings established high economic accountability practices in the usage of electricity in the sampled secondary schools. Further, aggregated statistical data in Table 4.18 on accountability and economic practices, findings had shown high accountability and economic practices among school managers.

The researcher believes that the economic usage of scarce resources is very important. The concept of scarce resources is an economic one that attempts to rationalize spending to avoid wastage. Educational wastage implies the inefficient utilization of educational resources to achieve educational goals. Munngu et al., (2016) indicated that proper accountability of financial resources in secondary schools is very imperative to their operations.

This view is supported by Nakpodia and Okeimute (2011) who explained that in the school system, managerial accountability is usually linked to the management of scarce resources to achieve the set goals and objectives of education. Research findings show high levels of accountability in the usage of stationery at 88%, Water at 91%, and electricity at 79%. Study findings revealed and confirmed that school managers' economic practices are high according

to the results from the sampled schools at 94%. These results speak well to the theoretical framework on the responsibility of school managers in ensuring that all the available resources are accounted for in the provision of education.

Drawing from the finding, the implication, in this case, is that learner performance may be high in schools where the managers account for and rationally utilise resources economically and other factors are followed as shown in the conceptual framework. These findings are supported by Velayutham and Perera (2004), who claim that accountability is a tool that ensures school managers' performance in undertaking their responsibilities.

The conceptual framework of the study shows managerial accountability as the independent variable which also shows the effects of the determinants which in this case are accountability practices in financial and material resource allocation, utilisation and control, and compliance with laid down procedures in the utilisation of resources. The interrelation of the two sides, speaks well to the research in coming up with the correct school manager accountability practices that have been established in the study.

The study has also revealed that when determinants as shown in the conceptual framework are not well followed it will bring about low accountability. Low accountability will bring about low staff productivity, poor planning, and lack of internal control mechanisms which in turn results in the inability of the school/s to attain set educational goals and objectives thus resulting in low learner achievement and low school performance. However, Collected and analysed statistical data on the sampled schools show high levels of school manager accountability in the utilisation of financial and material resources, high levels of control and allocation of financial and material resources, and high levels of compliance to laid down procedures in the utilisation of resources.

This view is supported by Nakpodia and Okeimute (2011) who explain that in the school system, managerial accountability is usually linked to the management of the scarce resources of education to ensure prudent utilisation of available resources for the accomplishment of the stated goals of education. In this view, there is an emerging perspective that managerial accountability is the cornerstone of school performance when all the factors are considered and applied in totality. Factors such as accountability in the utilisation and monitoring of material resources at lower-level management in schools. With regard to resource utilisation, the study findings show high levels of compliance with the procedure by school managers. Compliance

with procedures is one of the traditional ways used to ensure rational utilisation of financial and material resources in schools.

It was further established that the financial rules and regulations guide actors in the decision-making processes in the utilisation of school resources. The findings are in line with Tetlock's (1999), accountability theory which links individual decision-makers to the institutions within which they live and work by reminding them of the need to act in accordance with prevailing norms. This is also in line with the conceptual framework which means that high compliance levels to laid down procedure leads to high school performance.

On sources of funds in schools, results indicated that the Government grant, school fees, tuck-shop sales, and production unit are the main sources of funds in public secondary schools in Zambia. School. It is the researcher's view that school managers were more concerned with upward accountability to their superiors, rather than to, pupils, teachers, and parents as stakeholders. The actions and circumstances of communities also have implications on learning outcomes and there are a number of collective action challenges both within communities and between communities and schools that are currently undermining progress.

5.2.2 School managers' compliance with accountability requirements in public secondary schools

The research question sought to establish the level of school managers' compliance with accountability requirements in public secondary schools. Table 4.20 shows items/factors that influence the levels of managerial accountability compliance to set standards. Having ranked items, 1,287 responses were received and 522 representing 40.56 % of the respondents' responses on all items revealed that compliance to set standards was the highest under strongly agreed followed by 430 responses of agreed representing 33.41%. Somewhat agree responses totaled 179 responses giving 13.91% and not sure responses were 68 representing 5.28% while 88 responses representing 6.84% disagreed to compliance to laid down standards. Therefore, not sure was the lowest on managerial accountability compliance to set standards.

The study findings on the sampled respondents on compliance to set standards in resource utilisation had cumulatively shown that of the 1,287 responses, 1,131 (88 %) comply with set standards in resource utilisation and 156 (12%) do not. This shows high compliance levels to set standards in resource utilisation.

Further findings revealed that of the 368 responses, 302 (82.1%) school managers follow the procedure in the acquisition of material resources. This shows high compliance levels to material resource acquisition. The study finding confirmed from the statistical data that school managers' compliance with laid down procedures in the acquisition and utilisation of financial and material resources in public secondary schools is very high (81.1%). However, the researcher noted some inconsistencies in adherence to procedures in seven (7) public secondary schools translating into 15.2 %. Aggregated statistics on the findings further revealed that public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the Procurement Act of 2020 are always followed by most school managers.

From the Accounts Assistant projection on compliance with the procedure in financial resource utilisation, the aggregated statistics in Table 4.12 and Table 4.13 on Accounts Assistance compliance with the procedure in financial resource utilisation had shown that out of 460 responses, 408 (88.7%) comply with procedures in financial resource utilisation. The findings, in this case, showed high compliance levels to following the procedure in the utilisation of financial resources from the accounts assistant's projection. So, it can be concluded that Accounts Assistants generally follow procedures in their daily routine.

5.2.3 Accountability tools used in compliance with laid down procedures

The research question sought to establish accountability tools school managers use to account for financial and material resources in compliance with laid down procedures. There are well-laid-down procedures for utilization of public financial resources in public secondary schools as enshrined in the guidelines of the MoE, 2021 & 2022. It was also confirmed that the MoE had well-laid down policies and procedures for financial resources utilization in public primary schools some of which were enshrined in the following documents; The Public Finance Management Act No. 1 of 2018, Public Procurement Act of 2020, The Anti-Corruption Commission Act, National Audit Act, Anti-Money laundering Act and government circulars.

Aggregated data in Table 4.7 revealed high (88.7%) compliance levels to following procedure in the utilisation of financial resources in public secondary schools. Statistical data in Table 4.8 also show high compliance levels (84.2%) to financial procedural practices among school managers.

Further, the study findings revealed that school managers methodically control financial and material resources through budgeting and reapportioning resources to priority areas. The study has spot-lighted standard accountability practices employed by school managers to include the use of asset registers, stores ledgers, payment vouchers, goods received vouchers, stores requisition, bank reconciliations, receipt books, bin cards, cash books, bank statements, and cheque registers to monitor and control financial and material resource utilisation. In support of these findings Ojo et al. (2020), and Ghosh et al. (2020) describe control as the process of analysing whether actions are being taken as planned, as well as taking corrective measures to make them conform to the plan of action. Liang and Frosen (2020) concurred with this description by saying that formal controls represent written or explicitly stated goals, regulations, and standards that institutions use to specify processes and desirable outputs.

The study findings agree with various observations in the literature review. The results showed that the internal control system plays an important role in ensuring the effectiveness of financial management practices. To implement a proper internal control system, those who are 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 Relationship between School Manager Level of Accountability and School Performance

Drawing from the literature reviewed on school manager accountability and school performance, the study explored school manager accountability practices in financial and material resources utilisation and compliance with laid down procedures in the allocation and utilisation of financial and material resources in relation to school performance. The study findings revealed that school managers' levels of accountability were high, having an average weighted mean of 4.50. Despite the high levels of managerial accountability, results have shown that there is no significant relationship between school manager accountability level and school performance (academic results). This is so because accountability is not the only factor that determines school / academic performance.

The findings revealed that there are other factors such as the learning environment, teacher motivation, availability of teaching and learning materials, attendance, etc., that contribute to performance. The findings are supported by Caballes and Peregrino's (2021) research findings which did not find any significant relationship between school manager accountability and

school performance. Despite the assumption that schools that perform well have been found to have been managed by accountable managers (Christensen and Laegreid, 2014).

However, the findings in this study have also shown that school managers seemed to have concentrated much on regulatory accountability, which focuses on compliance with relevant laws and regulations, and typically focuses on inputs and processes within the school rather than the performance accountability model which focuses more on school outcomes. Table 5.1 below signifies the significant relationship between managerial accountability and school performance.

Table 5.1: Relationship between Managerial accountability and School Performance

Variable	R-value	Sig. (2-tailed)	Decision
Managerial Accountability and School Performance	-.102	.606	Ho Accepted

Source: Author (2022)

The findings of this study peculiarly established that there was no significant relationship between school manager accountability levels and school performance levels as shown in Table 5.1, whose R-value was -.102 and .606 level of significance which was greater than 0.05 alpha of significance. This study further revealed that the school manager's accountability level has no bearing on school performance because accountability is not the only factor that determines performance as shown in the conceptual framework. The outcome has shown that it is not always true that high managerial accountability leads to high school performance. This finding is supported by Dubnick (2005) who also argued that the idea that accountability increases performance has been accepted without careful scrutiny and he claims that there is an 'accountability paradox' in which more accountability diminishes organizational performance.

From the findings, I would like to conclude by saying that school accountability is a combination of mechanisms that are covered in three (3) broad types of accountabilities: Performance accountability, Regulatory accountability, and Market accountability which are supposed to be applied simultaneously as shown in the conceptual framework variables. The conceptual framework shows that accountability is the result of an interaction between the process and the reporting tools that influence performance levels through stakeholder involvement. The other factor that influences school performance is staff motivation and the responsibility of the individual student. Furthermore, the socioeconomic status and parental

level of education as well as the home/family background were found to be uncontrollable factors in performance.

The results in Tables 4.42 to 4.51 were drawn from the ten districts of the Copperbelt province and the data collected from the sampled schools was compared with the one at the Provincial Education Office in Ndola Copperbelt province on learner performance for the past five (5) years which helped the researcher to confirm the findings. The aggregated statistics have further shown that school manager accountability was at 71.7% while school performance was at 21.3% in the period under review. From the findings in this case, it can be concluded that even where school managers' accountability practice levels are low, the schools can still perform better because of the other factors that come into play when it comes to school performance. These findings are supported by Minadzi and Nyame (2016) who posited that school' performance is determined by many factors, although it is undeniable that the way a school manager runs a school is a great factor to be considered too. The findings generally show that school managers perform better in their jobs as far as accountability is concerned.

5.3 Implications of the Results of school manager accountability practices in the allocation and the utilisation of financial and material resources in public secondary schools.

The implications of the results of the study were analysed as indicated below:

5.3.1 Implications of the results on school managers' practices and procedures in the acquisition and utilisation of financial and material resources.

The study explored school manager accountability practices in the acquisition and utilisation of financial and material resources in public secondary schools in an attempt to establish their probable impact on performance. This research was based on the premise that where resources were adequately accounted for and promptly utilised, they impacted positively on school performance. Conversely, where resources are not prudently utilised, they impact negatively on performance.

The researcher deep into looking at the sources of funds in public secondary schools in Zambia the research findings revealed and confirmed that public secondary schools acquire financial resources through school grants from the Government, school fees, and additional finances through Tuck-shop sales, production unit, and hall/classroom hire. The study established also that material resources in public secondary schools are acquired through Government textbook distribution, education stakeholders' donations, and procurement of textbooks by the schools.

5.3.2 Implications of the results on tools school managers use to monitor financial and material resource utilisation

The research established that levels of monitoring and control of material and financial resource utilization are very low in schools. The study has revealed that financial and material resource monitoring is vital in the achievement of set goals and objectives. The study findings have also revealed that performance levels are influenced by the appropriate utilization of school resources as seen from the statistics on learner performance for the period 2015 to 2019. The study has also established that school managers control and allocate financial and material resources in public schools through a school budget.

The above argument is supported by Ogbonnaya (2000) who contends that the main purpose of financial budgeting is to ensure that funds sourced are utilised in the most efficient and effective manner. The author further argues that resources are scarce and therefore educational administrators have to optimally and prudently use available resources for the attainment of institutional objectives.

The study further revealed that school managers control and allocate financial and material resources in public secondary schools by following laid down financial regulations such as financial management policies that involve imprest management, financial auditing among others, credit management policy, and inventory management policy. It was noted from the findings that a considerable number of schools follow recommended government financial management practices that involve internal controls based on the reason that these are an integral part of careful financial management in every school setting.

The study revealed also that Internal controls provide a system of checks and balances to detect financial errors and irregularities in a timely fashion. Most internal controls are designed and used as measures to prevent mistakes/ errors from occurring. Furthermore, school managers control and allocate financial and material resources in public secondary schools through record keeping. Record keeping is one of the methods that school administrators use to monitor the usage of school resources. Recording keeping helps school managers to know whether the school procurement and store officers are misusing material and school funds. In the future, this means that monitoring of financial and material utilisation in schools should be strengthened and standardised.

5.3.3 Implications of results on levels of school manager compliance to set /expected standards.

Findings on School manager compliance to set standards were high in sampled schools. Cuomo (2005) confirmed that accountability helps to ensure the rational use of public funds through compliance with rules, regulations, policies, procedures, ethical standards and management directives, efficient and effective operations of planned objectives, safeguarding institutional resources against forms of misuse, reliability of the financial records and timely reporting, regular auditing of institutional financial statements and the proper keeping of inventory records and their whereabouts. Jarl et al. (2011) added that within schools, teachers have to be accountable to each other and the stakeholders such as the parents, politicians, and civil society organisations.

The author further posited that the school managers and school Education Boards have to undergo training in planning, finance, and budgeting because they are accountable for these functions and at the same time, they have to keep an eye on the performance of the school. It is in this vein that school managers must endeavour to monitor the implementation of spending plans according to the budget. A deviation from the budget may lead to low performance and failure by the school manager to run the school. School managers and school governing bodies must fulfill their responsibility of ensuring that financial and material resources are well managed by following the budget and laid down procurement procedures.

5.3.4 Implications of the results on how managerial accountability impact performance in public secondary schools

The study findings revealed that school manager accountability has an Impact on school performance when applied with other factors that contribute to performance such as the learning environment, attendance, availability of teaching and learning resources, and teaching staff motivation as clearly shown in the conceptual framework. It is important to note that academic performance involves factors such as the intellectual level, personality, motivation, skills, interests, study habits, self-esteem, or the teacher-student relationship. Managerial accountability means prudent utilisation of financial and material resources and curbing resource wastage to enhance quality service delivery in schools.

The aspect of accountability can be seen from the point that performance is positively correlated to all other aspects of education provision factors. However, various studies on school performance were based on the assumption that enhanced accountability would improve performance (Christensen & Laegreid, 2014). It is important to note that accountability is a

complex and multi-faceted notion, so the possible influence of accountability on performance has been problematic and inconclusive, not least because performance is complex, multifaceted, and difficult to measure (Demirag and Khadaroo, 2011; Hyndman and Eden, 2001).

5.4 Conclusion

It can be concluded vividly that School managers conscientiously control financial and material resources through budgeting and reappropriating resources to priority areas. The findings spot-lighted standard accountability practices employed by most school managers including the use of asset registers, stores ledgers, payment vouchers, goods received vouchers, stores requisition, bank reconciliations, receipt books, bin cards, cash books, bank statements, cheque registers to monitor and control material and financial resource utilisation. High levels of school manager accountability in the utilisation of financial and material resources have also been revealed.

The study peculiarly established that there was no significant relationship between school manager accountability and school performance. School performance has been found to be largely average despite the high levels of school managers' financial and material resource accountability. Accountability is a complex and multi-faceted notion, so the possible influence of accountability on performance has been problematic and inconclusive, not least because performance is complex, multifaceted, and difficult to measure

5.5 Projection of the Next Chapter

The chapter discussed the findings of the study research questions in comparison with other works and Tetlock's accountability theory. The subsequent chapter provides a summary, conclusion, and recommendations of the study as highlighted in the previous chapters.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter is a summary of the conclusions and recommendations that the study arrived at after the analysis, interpretation, and discussion of findings. The chapter is a recap of the objectives of the study and the conclusions that emerged from the study. It also gives recommendations for further actions and desirable inquiries. This study quantitatively examined the school manager accountability practices in the management of financial and material resources and how they impact performance in selected public secondary schools of the Copperbelt province in Zambia.

6.2 Summary

This study scrutinized a range of accountability variables among secondary school managers to assess the impact on school performance in selected public secondary schools in the Copperbelt Province of Zambia. This was done by analysing management practices and tools in relation to the utilization of material and financial resources.

Using a descriptive study design of the quantitative approach, the study collected data through three sets of questionnaires which were administered to fifty (50) school managers, fifty (50) accounts assistants, and fifty (50) store officers. The data collected were analysed using descriptive statistics and regression analysis. The data were also subjected to inferential statistics such as the Pearson Product Moment of Correlation to determine the significant relationships among the variables. This was done using Statistics Package for Social Sciences (SPSS version 26), SmartPLS software, and Pearson regression analysis. The findings were presented as frequency tables, percentages, means, and variations.

The study explored two main variables around school manager accountability practices in the utilisation of financial and material resources to infer implications on school performance in public secondary schools. School Manager accountability practices in the utilisation of financial and material resources, control and allocation of financial and material resources and compliance to laid down procedures in the utilisation of resources were the areas of concern to the researcher to ascertain the relationship between managerial accountability and school performance. The study revealed high levels of school manager accountability in financial and material resource utilisation in the sampled public secondary schools. The study established that most schools have elaborate ways of spending funds which is through government-designated ways.

From the findings, the study established that the cheque register, the cash book, the store's ledger, the store requisition, the bin cards, the receipt books, the goods received vouchers, the goods issue vouchers, the local purchase orders, and the budget as some of the tools school managers use in monitoring financial and material resource utilisation. These tools were available and well-used in most schools. The study established also that financial resources in public secondary schools are allocated according to the budget and material resources are allocated according to departmental requests. The study further showed high levels of resource management, increased accountability, and better budgeting because of the above-mentioned tools and government-tabulated procedures.

Furthermore, the study established that most school managers comply with Government developed mechanisms such as Goods Issue Vouchers, departmental inventory control forms, and departmental stock ledgers as monitoring tools for ensuring that institutions are accountable in the utilisation of limited available resources. The findings have also shown that most school managers ensure that available resources are prudently utilised and have allowed for full stakeholder involvement in budgeting. The study revealed also that school managers in public secondary schools control and allocate financial and material resources by coming up with and prudently following the budget. It also found that there are high levels of managerial compliance with government-set standards and procedures despite low levels of control which is mainly found mainly at lower-level management.

This particular study established that there is no significant relationship between the school manager's level of accountability and the school's performance level. Furthermore, Results from the hypothesis indicated that there was a strong positive relationship between Compliance with laid down procedures in the utilisation of resources and school performance ($t=3.860$, $p<0.01$). The zero-order correlation between Compliance to laid down procedures in the utilisation of resources had shown an influence on school performance and always review compliance with the existing Government financial regulations, instructions, and procedures was 0.142 hence Hypothesis 4_b was supported. The results from the hypothesis testing had shown also that there was no significant positive relationship between the variable School Manager Accountability levels and School Performance ($t=0.420$, $p>0.05$). Hence, this hypothesis was not supported.

The researcher further noted that there is a lack of empirical studies that examine the effects of accountability measures on learner performance (McLendon, Hearn, & Deaton, 2006; Rutherford & Rabovsky, 2014). One of the reasons for the existence of few empirical studies on

this subject was the difficulties encountered when attempting to analyze the effects of accountability mechanisms, particularly in relation to learner performance (Hanushek & Raymond, 2004). Thus, there are gaps in the empirical understanding of how accountability mechanisms in education are related to learner performance (Rabovsky, 2012).

Volkwein and Tandberg (2008) studied the association between states' accountability practices and the performance of education institutions in terms of academic results by analyzing a large cross-sectional data set from 2000 to 2006. The researchers concluded that there is no statistically significant relationship between accountability and institutional performance as it relates to enhanced learner-learning outcomes.

Similarly, a quantitative study by Rabovsky (2012) exploring whether the adoption of state accountability mechanisms augmented institutional performance concluded that accountability measures in the education systems have not been positively correlated with enhanced academic results. However, Rabovsky (2012) took his analysis further by arguing that similar research focusing on the adoption of the accountability mechanism has failed to examine all of the steps in the causal chain. Therefore, conclusions about the effects of accountability on improving academic results have limitations.

6.3 Conclusion

Having summarised the findings of the study, the following conclusions were drawn from the study:

From the findings on objective one, it can be concluded that School managers acquire financial resources through School fees, Tuck shop sales, production unit, and class/hall hire. From the findings of objective two, it can be concluded that school managers conscientiously control financial and material resources through budgeting and reappportioning resources.

As far as objective three was concerned, the study established standard accountability practices employed by most school managers including the use of asset registers, store ledgers, payment vouchers, goods received vouchers, store requisition, bank reconciliations, receipt books, bin cards, cash books, bank statements, cheque registers, Goods Issue vouchers to monitor and control material and financial resources utilisation.

From objective four, the study outcomes showed high levels of school manager accountability in the utilisation of financial and material resources and established that there was no significant relationship between school manager accountability and school performance which is generally

average despite the high levels of school manager accountability in financial and material resources allocation and utilisation.

In view of the foregoing, the study has established that school manager accountability levels were high in the allocation and utilisation of financial and material resources in sampled public secondary schools of the Copperbelt province of Zambia. This is despite the general misconception that school managers are not accountable in the utilisation of financial and material resources. The findings have empirically shown that school managers are highly compliant in setting procedures for resource utilisation and economic usage of stationary, water, and electricity in schools.

From the findings, it is concluded that school managers control financial and material resources through accounting for, monitoring, and reapportioning resources during the specified time cycle and that financial resources in schools are allocated according to the budget and as requested by departments through departmental heads.

The study empirically casts out doubts on school manager accountability practices, especially in the utilisation of financial and material resources and compliance to set standards and procedures. It has also been established that there is no significant relationship between school manager accountability levels and school performance. It is the researcher's view that accountability helps to ensure rational utilisation of public resources through the following aspects: 1) Compliance with rules, regulations, policies, procedures, ethical standards, and management directives; 2) Efficient and effective operations of planned objectives; 3) Safeguarding institutional resources against any forms of misuse; 4) The reliability of the financial records and timely reporting; 5) Regular auditing of institutional financial statements; and the proper keeping of inventory records. The study revealed high compliance with the procedure for financial resource utilisation and high school managers' compliance levels with resource accountability requirements in public secondary schools. It is therefore important to note that the notion of accountability assumes different meanings and emphasis in different contexts depending on the purpose for which it is used.

It can also be concluded that the study adds new knowledge to existing knowledge in the field of education management and policy studies in the conceptualisation and understanding, application and interpretation of school manager accountability practices in financial and material resource utilisation and implications on school performance in selected public

secondary schools Role players' limited understanding and interpretation of the effects of school manager accountability practices in financial and material resource utilisation in relation to school performance. Poor financial and material resource management is detrimental to the learners' performance and the curriculum suffers due to many deviations from the budget, the finance policy and legislation

6.4 Recommendations

Based on the conclusions, this study recommends that:

1. The Ministry of Education should strengthen the monitoring of schools in financial and material resources management.
2. Agencies responsible for curriculum development for teacher training should consider including financial management among the core courses for student teachers.
3. The government should also continue organising workshops and seminars for school managers, store officers, and school accounts assistants to enlighten them on better financial management techniques to enable them discharge their duties professionally. \
4. The system of the school manager signing on the payment voucher and the deputy on the cheque should be enforced in all schools for the sake of transparency.

6.5 Further Research

It is essential to suggest topics that can be explored for further research after the findings and recommendations of this research have been discussed. This research has assessed school manager accountability and their implications on school performance in selected public secondary schools of Copperbelt province in Zambia". The researcher recommends that the same problem be investigated in other provinces to match the findings at the primary school level. The following subjects are also recommended for further study:

- School Managers' Effectiveness in managing Human, Financial and Material resources for the Implementation of Free Secondary Education in Zambia
- Impact of the measures put in place on mismanagement of educational resources in public schools.
- Investigate the programmes designed by the Ministry of Education to capacitate school managers and education boards / PTA members in resource management.
- Accountability and resource management by heads of departments in secondary schools
- Financial and human resource accountability in primary schools

REFERENCES

- Abadzi, H. (2017), *Accountability and Its Educational Implications: Culture, Linguistics and Psychological Research.*” Global Education Monitoring Report Background Paper, UNESCO, Paris.
- Abu Bakar, N. and Ismail, S. (2011). *Financial Management Accountability Index (FMAI) in the Malaysian public sector: a way forward.* International Review of Administrative Sciences, 77(159).
- Adams, J.E. & Kirst, M.W. (1999), “*New demands for educational accountability: striving for results in an era of excellence*”, paper presented at the Annual Meeting of the American Educational Research Association, April 13-17, San Diego, CA.
- Adams, J.E., & Hill, P.T. (2006). *Educational accountability in a regulated market.* Peabody Journal of Education, 81(1), 217-235.
- Addi-Racah, A. & Gavish, Y. (2010), “*The LEA’s role in a decentralized school system*”, *Educational Management Administration and Principalship*, Vol. 38 No. 2, pp. 184-201.
- Addi-Racah, A. (2015), “*School principals’ role in the interplay between the superintendents and the local education authorities – the case of Israel*”, *Journal of Educational Administration*, Vol. 53 No. 2, pp. 287-306.
- Ambrosio, J. (2013), *Changing the Subject. Neoliberalism and accountability in public education*, *Education Studies* 49(4).316-333
- Ammons, D. N. (1995). “*Accountability for Performance: Measurement and Monitoring in Local Government* “. International City/ Country Management Association
- Anderson, J.A. (2005). *Accountability in education.* Paris: International Academy of Education.
- Argon, T. (2015). “*Teacher and administrator views on school principals’ accountability*”, *Educational Sciences: Theory and Practice*, Vol. 15 No. 4, pp. 925-944.
- Auditor General (2020)., *Report Financial Year Ended 31st December 2020*, Lusaka. Zambia.
- Bell, R. L., & Bodie, N. D. (2012a). *Delegation, authority, and responsibility: Removing the rhetorical obstructions in the way of an old paradigm.* *Journal of Leadership, Accountability and Ethics*, 9(2), 94-108

- Bovens, M. (2007). *Analyzing and assessing accountability: A conceptual framework*. European Law Journal, 13(4), 447–468.
- Bovens, M. (2010). *Two concepts of accountability: Accountability as a virtue and as a mechanism*. West European Politics, 33(5), 946–967.
- Bovens, et al. (2014). *Public accountability* (M. Bovens, T. Schillemans, & R. E. Goodin, Eds.). Oxford University Press.
- Brauckmann S & Schwarz A (2014). *Autonomous leadership and a centralised school system. An odd couple? Empirical insights from Cyprus*. International Journal of Educational Management, 28(7):823-841. doi: 10.1108/IJEM-08-2013-0124
- Briggs et al (2012) *Building Bridges: Understanding Student Transition to University. Quality in Higher Education*, London.
- Bruns, B., Filmer, D., & Patronas, H. A. (2011). *Making schools work: new evidence on accountability reforms*. The International Bank for Reconstruction and Development / The World Bank, Washington DC.
- Busuioc, M. and Lodge, M. (2017), “*Reputation and accountability relationships: managing accountability expectations through reputation*”, Public Administration Review, Vol. 77 No. 1, pp. 91-100
- Bwalya, R. E. (2012). *The Provision of Universal Access to Basic Education in Kafue District, Zambia*: (Unpublished M.A. Thesis). Lusaka: University of Zambia (UNZA).
- Calderon, A.B.B. and Ancho, I.V. (2018), “*Examining malpractice in the education context*”, *Journal of Research, Policy, and Practice of Teachers and Teacher Education (JRPPTTE)*, Vol. 8 No. 2 pp. 95-103.
- Calliope, S. (2020), “*Between domestic learning and external co-budgeting and fiscal management reform in Greece*”, South European Society and Politics, Vol. 25 No. 1, pp. 1-26
- Cendon, A.B. (2000). *Accountability and public administration: Concepts, dimensions, developments*. In M. Kelle, (Ed.), *Openness and transparency in governance: Challenges and opportunities* (pp.22-61). Maastricht: European Institute of Education.

- Christensen, T., and P. Laegreid, 2014. “*Performance and Accountability - A Theoretical Discussion and An Empirical Assessment.*” *Public Organization Review*, DOI 10.1007/s11115-013-0267-2.
- Chiang, H. (2009). *How accountability pressure on failing schools affects student achievement.* *Journal of Public Economics*, 93, 1045-1057.
- Converse, J. M. and Presser, S. (1986). *Survey Questions: Handcrafting the Standardized Questionnaire.* California: Sage.
- Creswell, J. W. (2014). *Educational Research: Planning Conducting and Evaluating Quantitative and Qualitative (ed).* Upper Saddle River: Sage.
- Creswell, J. W. (2015). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Enhanced Pearson eText with Loose-Leaf Version (6th Edition)* America. www.amazon.com/education/research. Retrieved on 19/06/2016.
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (3rd ed.). Los Angeles: Sage.
- Creswell, J. W. & Clark, P.V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.
- Cuomo, A. (2005). *Internal controls and financial accountability for not-for-profit boards.* Charities Bureau. Available at <https://www.nyc.gov/html/>.
- David, E., S. & Early, P. (2014). *Effectively Managing headteacher performance.* Institute of Education of London: Retrieved on 29th /04/2015.
- Day, E. & Pamela, W. (2013). *Investing the links to improved student Learning:* Retrieved on
- Demba, G.A. (2013). *Effects of Financial Management Practices on Performance of Kenya Medical Training College.* Unpublished MBA project. University of Nairobi, Kenya
- Demirag, I., and I. Khadaroo, 2011. “*Accountability and Value for Money: A Theoretical Framework for the Relationship in Public - Private Partnerships.*” *Journal Management Government*, 15, 271-296.

- Diab, A. (2021), “*The accountability process during the centrality of state institutional logics: a case from an African rural context*”, *Journal of Accounting in Emerging Economies*, Vol. 11 No. 3, pp. 341-366.
- Dubnick, M. (2005). *Accountability and the promise of performance: in search of mechanisms*. *Public Performance and Management Review*, 28(3), 376–417.
- Dzomira, S. (2017), “*Financial accountability & governance in an emerging country*”, *Corporate Ownership and Control*, Vol. 14 No. 3, pp. 204-208.
- Eacott, S., & Norris, J. (2014). *Managerial rhetoric, accountability, and school leadership in contemporary Australia*. *Leadership and Policy in Schools*, 13(2), 169-187.
- Ebrahim, A. (2003). *Accountability in practice: Mechanisms for NGOs*. *World Development*, 31(5), 813-829.
- Elmore, R.F. (2005). *Accountable leadership*. *The Educational Forum*, 69(2), 134-142.
- Englert, K., Fries, D., Martin-Glenn, M., & Douglas, B. (2007). *Accountability systems: A comparative analysis of superintendent, principal, and teacher perceptions*. *International Journal of Education Policy and Leadership* 2(4), 1-12.
- English, F.W. (2008). *The art of educational leadership: Balancing performance and accountability*. Los Angeles: Sage Publications.
- Eriksen, A. (2021), “*Accountability and the multidimensional mandate*”, *Political Research Quarterly*, Vol. 74 No. 2, pp. 364-376.
- Espinosa, F.M. (2017), “*Financial management practices of school heads: teachers’ perspectives*”, *Skyline Business Journal*, Vol. 13 No. 1, pp. 33-45.
- Ezeocha, P.A. (1997). *Financial management of schools in austere time in Ndu*, A., Ocho L. & Okeke, B.S. *Dynamics of educational administration and management. The Nigeria perspective* Awka: Meks-Publishers Ltd.
- Fraine, B.D., Van Damme, J., & Onghena, P. (2002). *Accountability of schools and teachers: What should be taken into account?* *European Educational Research Journal*, 1(3), 403-428.
- Gabbard, K. (2012). *What does it mean to be “financially accountable”?* *Colloquially*, 30-33.

- Gay, L., Mills, G., & Airasian, P. (2006). *Educational research: Competencies for analysis and applications*. New Jersey: Pearson Education, Inc.
- Goodwin, B., Englert, K., & Cicchinelli, L.F. (2003). *Comprehensive accountability systems: A framework for evaluation* (Revised Edition). Aurora, CO: Mid-Continent Research for Education and Learning.
- Gray, R., Owen, D., and Adams, C.A., (1996), *Accounting and Accountability: Changes and Challenges in Corporate Social and Environmental Reporting*, London, Prentice-Hal
- Hatch, T. (2013). *Beneath the surface of accountability: Answerability, responsibility and capacity-building in recent education reforms in Norway*. *Journal of Educational Change*, 14, 113-138.
- Heim, M., (1996). *Accountability in Education: A primer for school leaders*. Pacific Resources for Education and Learning, Hawaii Department of Education, Honolulu, Hawaii.
- Ibrahim, A.H & Orodho, A.J. (2014). *Strategies applied by the Board of Management to enhance students' academic performance in National Examinations in secondary schools in Mandera County, Kenya*. *Journal of Education and Practice*. Vol 5, No.20, 2014. pp. 1-20 www.iiste.org.
- Imenda, S. (2014). *Is There a Conceptual Difference between Theoretical and Conceptual Frameworks?* *Sosyal Bilimler Dergisi/Journal of Social Sciences*, 38(2), 185.
- Isola, O.M. (2010). *Effect of standardized and improvised instructional materials on students' academic Achievement in secondary school physics*. Unpublished M. Ed. project, University of Ibadan, Ibadan.
- Jarl, M., Fredriksson, A., and Persson, S. (2011). *New public management in public education: a catalyst for the professionalization of Swedish school principals*. *Journal of Public Administration*, 90(2), 429-444.
- Koppell, J. G. S. (2011). *Accountability for global governance organizations*. In M. J. Dubnick & H. G. Frederickson (Eds.), *Accountable Governance: Problems and promises* (pp. 55–77). Armonk, NY: M. E. Sharpe.
- Kothari, C. R. (2004). *Research Methodology: Methods and techniques*. New Age International.

- Ladd, H.F., & Zelli, A. (2002). *School-based accountability in North Carolina: The responses of school principals*. *Educational Administration Quarterly*, 38(4), 494-529.
- Leedy P.D. & Ormrod J.E. (2010) *Practical Research: Planning and Design. (9th ed)*. Pearson Educational International, Boston
- Lingenfelter, P.E. (2003) *Educational accountability: Setting standards, improving performance, change*. *The Magazine of Higher Learning*, 35(2), 18-23.
- Magak, E.O. (2013). *Challenges facing head teachers in financial management in public secondary schools: A case of Kisumu East District Kenya*. Unpublished MEAP project, University of Nairobi, Kenya.
- Mbobola, A. (2013). *A Comparative study on the Effectiveness of trained management headteachers /untrained: A case study of Chongwe District*. University of Zambia. Unpublished M.A Thesis.
- Mbua, (2000). *Educational Planning: Issues and Perspectives* Limbe: Press Printed Ltd
- McGaghie, W. C.; Bordage, G.; and J. A. Shea (2001). *Problem Statement, Conceptual Framework, and Research Question*. Retrieved on January 5, 2015 from <http://goo.gl/qLIUFg>
- MelakuYimam. (2010). *Reading on resource management in Education* (unpublished teaching material). Addis Ababa University.
- Mestry, R. (2006). *The functions of school governing bodies in managing school finances*. *South African Journal of Education*, 26(1): 27-38.
- Miriti, J.M., & Wangui, N.M. (2014). *Financial Management: Training Needs of Public Secondary School Principals in Machakos County, Kenya*. *Research on Humanities and Social Sciences*, 4(13), 136-141.
- Moberg, et al (2012). *Impact of entrepreneurship education in Denmark - 2012*. Odense, Denmark: The Danish Foundation for Entrepreneurship – Young Enterprise.
- Ministry of Education (2021) *Guidelines for utilization of funds in schools under the education for all policy*, Government printers, Lusaka

- Ministry of Education (2022) *Guidelines for utilization of funds in schools under the education for all policy, Edited*, Government Printers, Lusaka
- Ministry of Education (2006). *Headteacher Training Manual*: Lusaka. Government of Zambia press.
- Ministry of Education (1996). *Educating Our Future*. Lusaka. Government of Zambia press
- Ministry of Finance and National Planning (2021) *Zambian National Budget for the year 2022*, Government Printers, Lusaka
- Mucai Esther Wanjiku, (2013). *Availability and Utilization of Educational Resources on the Students Performance in Secondary Schools in Mbeere South, Embu County, Kenya*.
- Mukwa, C. W. & Too, J. K, (2010). *General Instructional Methods*. MoE University Press, Eldoret.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
- Mwanza, F. (2013). *The effect of corporate governance on the financial management of constituency development funds in Kenya*. Unpublished MBA Project, University of Nairobi, Kenya.
- Nakpodia, E.D. & Okeimute, AR (2011). *Teacher's accountability in Nigeria education system: Perception of teachers and administrators in Delta State*, International NGO Journal 6(7): pp.152-158
- Noor, K. B. M (2008). *Case study; A strategic Research Methodology*. American Journal of Applied Sciences. 5 (11); 1602-1604. Science publications
- Nyondo, L. (2015). *ZPPA Introduces Electronic Procurement System*. Zambia Daily Mail. Retrieved from <https://www.daily-mail.co.zm/zppa-introduces-electronic-procurement-system/>
- O'Day, J. (2002). *Complexity, accountability, and school improvement*. Harvard Educational Review, 72(3), 293-329.
- OECD (1998), *Effects of European Union Accession, Part 1: Budgeting and Financial Control*, OECD SIGMA Paper No. 19, March 1998, Appendix 3

- Ofsted (2011) *School governance: learning from the best; School governing bodies are responsible for the conduct of maintained schools in England*. No. 100238
- Okoroma, N. S. (2007). *Perspectives of Educational Management, Planning and Policy Analysis (2nd Edition)*. Port Harcourt: Minson Publishers.
- Open Society Foundations [OSF] (2013). “*Zambia: Effective Delivery of Public Education Services.*” Johannesburg: Open Society Initiative for Southern Africa
- Rabovsky, T. (2011). *Accountability in higher education: Exploring impacts on state budgets and institutional spending*. University of Oklahoma, USA.
- Rabovsky, T. M. (2012). *Accountability in higher education: Exploring impacts on state budgets and institutional spending patterns*. *Journal of Public Administration Research and Theory*, 22(4), 675-700. doi:10.1093/jopart/mur069
- Rangongo, P., Mohlakwana, M. and Beckmann, J. (2016), “*Causes of financial mismanagement in South African Public schools: the views of role players*”, *South African Journal of Education*, Vol. 36 No. 3, p. 1.
- Tawari, O. C. (1995). *The Importance of Accountability in the School System*, paper presented at a Workshop organized by the Rivers State Primary Education Board.
- Usman, Y. D. (2015). *The Impact of Instructional Supervision on Academic Performance of Secondary School*
- Volkwein, J. F., & Tandberg, D. A. (2008). *Measuring up: Examining the connections among state structural characteristics, regulatory practices, and performance*. *Research in Higher Education*, 49(2), 180-197. doi.10.1007/s11162-007-9066-3
- Yan, Y. (2019). *Making accountability work in basic education: Reforms, challenges and the role of the government*. *Policy Design and Practice*, 2(1), 90-102.

APPENDICES

APPENDIX 1 – LETTER FROM THE UNIVERSITY



THE UNIVERSITY OF ZAMBIA SCHOOL OF EDUCATION

Telephone: 291381
Telegram: UNZA, LUSAKA
Telex: UNZALU ZA 44370

PO Box 32379
Lusaka, Zambia
Fax: +260-1-292702

=====
Date: 30th December, 2020

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: FIELD WORK FOR MASTERS/ PhD STUDENTS

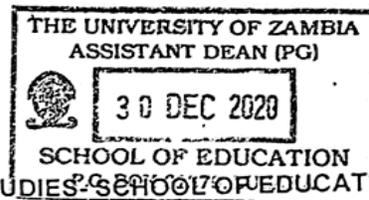
The bearer of this letter Mr./Ms. Kabaso Oliver..... Computer number 2019111373..... is a duly registered student at the University of Zambia, School of Education.

He/She is taking a Masters/PhD programme in Education. The programme has a fieldwork component which he/she has to complete.

We shall greatly appreciate if the necessary assistance is rendered to him/her/.

Yours faithfully

Bibian Kalinde (Dr)
ASSISTANT DEAN POSTGRADUATE STUDIES ~~SCHOOL OF EDUCATION~~



cc: Dean-Education
Director-DRGS

APPENDIX 2 - REQUEST FOR PERMISSION PEO

C/O KABUNDI SECONDARY SCHOOL
P.O BOX 10502
CHINGOLA

The Provincial Education Officer
P.O BOX
NDOLA

Dear Sir,

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN SECONDARY SCHOOLS IN COPPERBELT PROVINCE

I hereby wish to apply for permission to conduct research in selected public secondary schools of the Copperbelt province of Zambia. I am Oliver Kabaso, a student at the University of Zambia studying for a Doctor of Philosophy degree in Education Administration and Management. My research project will involve; School Managers, Accounts assistants, and Store officers in selected public secondary schools. My research topic is "**Exploring school manager accountability practices in Financial and material resource utilisation and Implications on school performance in selected public secondary schools of the Copperbelt Province of Zambia.**"

This study will involve administering questionnaires to school managers (Headteachers), accounts assistants, and store officers in selected schools. During this period, I would like to go through all available financial documents, school inventory, stock books, store requisition, goods received vouchers, and any other policy documents that are used in the management of financial and material resources in school.

The information obtained will be treated with the strictest confidentiality and will be used solely for this research purposes only. It is my presumption that the research findings will make a creditable contribution towards the effective and efficient management of financial and material resources in public secondary schools in Zambia.

Yours sincerely



OLIVER KABASO

E-mail address of student: oliverkabaso@gmail.com

Student contact number: +260 955/ 966 812 880

APPENDIX 3 - PERMISSION TO CONDUCT RESEARCH

All correspondence should be addressed to
The Provincial Education Officer
Tel/ Fax: 0212 615 416 / 0212 615625



in reply please quote
NO:

REPUBLIC OF ZAMBIA MINISTRY OF EDUCATION

OFFICE OF THE PROVINCIAL EDUCATION OFFICER
P.O BOX 71552
NDOLA-ZAMBIA

29th October 2021

Mr. Oliver Kabaso
c/o Kabundi Secondary School
P.O. BOX 10502
CHINGOLA

RE: PERMISSION TO CONDUCT RESEARCH IN SECONDARY SCHOOLS: OLIVER KABASO – COMPUTER NO. 2019111373

Reference is made to your letter dated 29th October 2021 in which you requested permission to conduct the research titled: "**Exploring school manager accountability practices in financial and material resource utilisation and implications on school performance in selected public secondary schools of the Copperbelt province of Zambia**" I wish to inform you that permission has been granted to conduct the research in public secondary schools of the Copperbelt province. However, kindly be informed that authority has been given on the condition that:

- i) COVID-19 rules should not be violated; and
- ii) Teaching and learning should not be disturbed

A handwritten signature in blue ink, appearing to read 'Changwe Terry'.

Changwe Terry
Provincial Education Standards Officer (PESO)
For/Provincial Education Officer
COPPERBELT PROVINCE

APPENDIX 4 - REQUEST FOR PERMISSION DEBS

C/O KABUNDI SECONDARY SCHOOL
P.O BOX 10502
CHINGOLA

..... 202.....

The District Education Board Secretary
P.O BOX
.....

Dear Sir,

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN SELECTED SECONDARY SCHOOLS IN YOUR DISTRICT

I hereby wish to apply for permission to conduct research in selected secondary schools in your district. I am Oliver Kabaso, a student at the University of Zambia studying for a Doctor of Philosophy degree in Education Administration and Management. My research project will involve School managers, Accounts assistants, and Store officers. My research topic is **"Exploring School Manager Accountability Practices in Financial and Material Resource Utilisation and Implications on School Performance in Selected Public Secondary Schools of the Copperbelt Province of Zambia"**

This study will involve the administering of questionnaires to school managers (Head Teachers), accounts assistants, and store officers. During this period, I would also like to go through all available financial documents, school inventory, stock books, stores requisition, goods received vouchers, and any other policy documents that are used in the management of financial, and material resources in school.

The information obtained will be treated with the strictest confidentiality and will be used solely for this research purpose. It is my presumption that the research findings will make a creditable contribution towards the effective and efficient management of financial and material resources in secondary schools in Zambia.

Yours sincerely

OLIVER KABASO

E-mail address of student: oliverkabaso@gmail.com

Student contact number: +260 955 812 880

APPENDIX 5 - PERMISSION SCHOOL MANAGER

C/O KABUNDI SECONDARY SCHOOL
P.O BOX 10502
CHINGOLA

The School Manager,
..... Secondary School
P.O BOX
.....

Dear Sir/ Madam,

RE: PERMISSION TO CONDUCT RESEARCH IN SCHOOL

I am Oliver Kabaso, a student at the University of Zambia studying for a Doctor of Philosophy degree in Education Administration and Management. I would like to conduct my research project at your school with you as the school manager, the accounts assistant, and the store's officer. My research topic is **"Exploring School Manager Accountability Practices in Financial and material resource utilisation and Implications on school performance in selected public secondary schools of the Copperbelt Province of Zambia"**

This study will involve administering questionnaires to you as school manager (Head Teacher), accounts assistant, and stores officer in your school. During this period, I would also like to go through all available financial documents, school inventory, stock books, stores requisition, goods received vouchers, and any other policy documents that are used in the management of financial and material resources in school.

Before commencing this data collection exercise, I would like to explain the research and what each of the participant's roles will be. I will also explain how I will go about the research and how administering questionnaires will be done. The information obtained will be treated with the strictest confidentiality and will be used solely for this research purpose.

I would like to thank you most sincerely for accepting to participate in this research. It is my presumption that the information obtained will make a creditable contribution towards the effective and efficient management of financial and material resources in secondary schools in Zambia.

Yours sincerely

OLIVER KABASO

E-mail address of student: oliverkabaso@gmail.com

Student contact number: +260 955/966 812 880

PARTICIPANTS INFORMED CONSENT FORM

If you are willing to participate in this study, please sign this letter as a declaration of your consent, to show that you will participate in this project willingly and that you understand that you may withdraw from the research project at any time. Under no circumstances will the identity of participants be made known to any parties/organisations that may be involved in the research process

Participant's signature:

Designation:

Date:

Researcher's signature:

Date:

Name of student: Oliver Kabaso

Contact number for student: +260 955 812 880 / 0966 812880

E-mail address of student: oliverkabaso@gmail.com

APPENDIX 7 - QUESTIONNAIRE FOR THE SCHOOL MANAGER

THE UNIVERSITY OF ZAMBIA

Dear Respondent

I am Oliver KABASO, a student at the University of Zambia studying for a Doctor of Philosophy degree. The topic of my research is **"Exploring School Manager Accountability Practices in Financial and Material Resource Utilisation and Implications on School Performance in Selected Public Secondary Schools of the Copperbelt Province of Zambia"**

You have been sampled to respond to this questionnaire and your cooperation is greatly appreciated.

You need not write your identification and the information you will provide will strictly be used for academic purposes only and with the utmost **confidentiality**. You are, therefore, requested to answer the questions as frankly as you possibly can. Thank you in advance for your cooperation.

General Directions:

1. Please, do not write your name anywhere on this questionnaire
2. Each statement has a scale of five numbers [5] [4] [3] [2] [1]. You are requested to rate each statement in relation to 5 = Strongly Agree, 4 = Agree, 3 = somewhat agree, 2 = Not sure, 1 = Disagree by **Ticking (√)** in the box in the assessment of yourself.
3. Please give answers to each closed-ended item as appropriately as possible.
4. Please give your short and precise responses to the open-ended questions.

Part 1: Demographic data of respondents

1. Sex: Male Female
2. Age: ≤ 25 years 26-30 years 31 - 35 years
36-40 years 41-45 years ≥ 45 years
3. Educational Level:
Certificate level College diploma
BA/BSC/ B.Ed MA/MSc If other please specify:
4. How many years have you been in service: ≤ 5 years 6-15 years 16-25 years ≥26 years
5. How many years have you served as a school manager:
6. How many years have you served as school manager at the current station:

PART 2: Practices and procedures in the acquisition and utilisation of financial and material resources

S/N	Task/Activity/Responsibility	5	4	3	2	1
A	Financial resource acquisition and utilisation practices					
1	You acquire financial resources in school through: (i) School fees (ii) Government grants (iii) Fundraising activities - Tuck shop - Room / Hall hire - Production Unit - Civilian /Careers Day - Sale of uniforms					
2	You sometimes use fundraised funds without following the procedures					
3	You rarely follow laid-down procedures in the use of government grants.					
4	You sometimes fail to account for monies raised from fundraising activities					
5	You ensure that financial resources are utilised as stipulated in the budget.					
6	You utilise financial resources on the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc.					
7	You use financial resources to maintain school surroundings and pay board workers.					
8	You always ensure that limited available resources are used for the intended purpose of school performance.					
9	You rarely ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts.					
10	You rarely ensure that the Budget practice procedure is in line with the MOE recommendations.					
11	There is a signing procedure in place for any payment on the voucher and cheque.					
12	You always; (i) Sign off on funds for every activity in accordance with the budget (ii) authorize the disbursement of school funds as stipulated in the budget (iii) ensure that the school has the funds it needs to run all the programmes smoothly (iv) ensure efficiency, equity, accountability, and cost-effectiveness in resource utilisation.					
B	Material resource acquisition and utilisation					
1	You acquire materials through Government supplies/donations					
2	You acquire materials through stakeholders' donations					
3	You acquire materials through purchases that are made based on the annual plan schedule					
4	You ensure that needed materials are procured on time					
5	You rarely involvement your staff in the planning of material resource purchases					
6	You sometimes fail to follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved.					
7	You rarely make follow ups and check material utilisation by responsible departments					
8	You sometimes ensure that materials are protected from wastage and abuse.					
9	You have an assigned body to control the availability and utilisation of educational materials in the school.					
10	You sometimes countersign on the store's requisition book to authorise the release of materials from stores.					

PART 3: Material and financial resource allocation and utilisation.

S/N	Task/Activity/Responsibility	5	4	3	2	1
1	You allocate financial resources according to the budget.					
2	You ensure that material resources are allocated according to departmental requests.					
3	You have always ensured that funds from whatever source have been accounted for and utilised as stipulated in the budget.					
4	You have ensured efficiency in the use of resources for education through improved management, increased accountability, and better budgeting for the past three years.					
5	You rarely check income and expenditure against the approved budget.					
6	You have put in place measures or guidelines to help promote efficiency and transparency in the use and allocation of resources.					
7	You monitor resource arrival, resource use, and resource storage and retrieval; and reapportion unused or under-used resources.					
8	You have ensured the best possible use of available resources and allowed for full stakeholder involvement.					
9	You have developed quality assurance mechanisms to ensure that your institution is accountable for the utilisation of limited available resources.					
10	You review budgetary controls on the issuance of warrants, commitments, expenditures, revenues, and accounting from time to time;					

PART 4: Managerial Accountability and Compliance

S/N	Task/Activity/Responsibility	5	4	3	2	1
1	You ensure that all revenue received in school is promptly banked before being used.					
2	Your school has a cheque register.					
3	You organise school board meetings and give financial reports at the beginning of the term.					
4	You sometimes follow public accountability guidelines as stipulated in the Public Finance Management Act No. 1 of 2018 and the procurement Act of 2020.					
5	You rarely ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services.					
6	You rarely review compliance with the existing Government financial regulations, instructions, and procedures;					
8	You prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board.					
9	You always ensure that the school budget is approved by the board before any spending is done as guided by the Government Decentralization Policy.					
10	You check and ensure that all education materials purchased or donated are entered in the stock book and labeled by the store's officer before use/ distribution to departments.					
11	You have put in place accountability guidelines that allow you to pay attention to how education services benefit the learners, parents, and the wider community.					
12	You check income statements, bank balance sheets, books of accounts, and bank reconciliation every month-end.					
13	You check and verify daily collection and receipt issuance by the accounts department at least twice a week.					
14	You ensure that all statutory accounting books like the ledger, cashbook, and asset register, are maintained and updated at least three times in a term.					

PART 5: Managerial Accountability and School Performance

Performance of Grade 12 by year and sex

Year	Gender	Total number of candidates who entered for the examination	Total number of candidates who wrote the examination	Total number absent	Number of candidates who passed 5 or more subjects including the English	PASS RATE	TOTAL		
		GRADE							
		12	12	12	12			12	12
2015	Male								
	Female								
2016	Male								
	Female								
2017	Male								
	Female								
2018	Male								
	Female								
2019	Male								
	Female								
Grand Total									

PART 6: Economic resource utilisation

S/N	Economic resource usage	5	4	3	2	1
(A) Accountability and economic usage of stationary						
1	Your school uses back-to-back printing					
2	You limit in the allocation of stationary to each department					
3	Promotion of e-mail or electronic communication to departments (soft copy)					
(B) Accountability and economic usage of water						
1	Teach students not to play with water in the toilet					
2	Avoid flushing the toilet unnecessarily					
3	Irrigate plants in the morning or in the evening to avoid rapid evaporation under the day's scorching sun					
4	Arrange for prompt repair to any dripping tap or leaking water main found					
(C) Accountability practices and economic usage of electricity						
1	Switched over to LED or CFLs compact florescent light in school					
2	Use sensors for turning lights On or Off in school					
3	Keep all windows, light bulbs and light fittings clean to maintain optimum lighting performance					
4	Maintain only those lighting which are essential for safety, security, or other specific purposes in areas that are infrequently occupied					
5	Have ensured maximized daylight usage					
(D) Other accountability and economic practices						
1	Remind the last one to leave the classroom/office to switch off all electrical appliances					
2	Conduct routine checks to ensure unnecessary lighting/air-conditioners, and communal facilities (e.g. photocopiers) are switched off outside school/office hours					
3	Appoint a designated staff member to follow up on the implementation of the energy-saving measures on school premises					
4	Monitor the usage of electricity, water, and stationery					

Thank you for your co-operation

APPENDIX 8 - SCHOOL MANAGERS ACCOUNTABILITY PRACTICES

PART 1: School manager accountability practices

S/N	Task/Activity/Responsibility	scale				
		5	4	3	2	1
1	The school has no financial policy in place to help account for finances					
2	You rarely ensure that offices adhere to outlined duties and responsibilities.					
3	You rarely ensure optimal utilisation of limited resources					
4	There is a functioning; 1) Finance committee 2) Procurement committee 3) Fundraising committee					
5	You sometimes keep stakeholders informed of the school's financial position and material resource utilisation.					
6	Your school has the following documents which are sometimes used; 1. Asset register 2. Cheque register. 3. Goods received voucher 4. Stores ledger/stock book 5. Stores requisition book 6. Daily revenue book					
7	You sometimes delegate the responsibility of accounting for educational materials received in the school					

Thank you for your co-operation

APPENDIX 9 - QUESTIONNAIRE FOR THE ACCOUNTS ASSISTANT

THE UNIVERSITY OF ZAMBIA

Dear Respondent

I am Oliver KABASO, a student at the University of Zambia studying for a Doctor of Philosophy degree. The topic of my research is "**Exploring School Manager Accountability Practices in Financial and material resource utilisation and Implications on school performance in selected public secondary Schools of the Copperbelt Province of Zambia**". *You* have been sampled to respond to this questionnaire and your cooperation is greatly appreciated.

You need not write your identification and the information you will provide will strictly be used for academic purposes only and with the utmost **confidentiality**. You are, therefore, requested to answer the questions as frankly as you possibly can. Thank you in advance for your cooperation.

General Directions:

1. Please do not write your name anywhere on this questionnaire
2. Each statement has a scale of five numbers [5] [4] [3] [2] [1]. You are requested to rate each statement in relation to 5 = Strongly Agree, 4 = Agree, 3 = somewhat agree, 2 = Not sure, 1 = Disagree by **Ticking** (✓) in the box
3. Please give answers to each closed-ended item as appropriately as possible.

Part 1: Demographic data of respondents

1. Sex: Male Female
2. Age: ≤ 25 years 26-30 years 31 – 35 years
36-40 years 41-45 years ≥ 45 years
3. Educational Level:
Certificate in accounts ZICA Licentiate
ACCA/CIMA/BA-Accountancy If other specify:
4. How many years have you been in service: ≤ 5 years 6-15 years 16-25 years ≥ 26 years
5. How many years have you served as Accounts assistant:
6. How many years have you served as an accounts' assistant at the current station:

Part 2: Financial resource utilisation and compliance.

S/N	Task/Activity/Responsibility	Scale				
		5	4	3	2	1
1	You are sometimes not involved in the preparation of the school budget					
2	Sometimes you find it difficult to account for the cash received in school					
3	You sometimes advise your supervisor on financial regulations and procedures.					
4	You sometimes use the income received before it is banked.					
6	You do not always ensure compliance with accounting regulations or acts.					
7	Sometimes you do not issue receipts for the monies paid in school.					
8	You sometimes keep custody of all used and unused receipt books.					
9	You do not keep custody of all the used and unused checkbooks.					
10	You do not always report to the school manager and the finance committee on all matters pertaining to the school's finances					
11	You sometimes delay paying for purchased items required by the school.					
12	You are not a signatory to some of the school bank accounts					
13	You always attend school board meetings					
14	You do not always give accurate financial reports in board meetings.					
15	Sometimes you do not have accurate and updated banking records.					
16	You update financial records at least twice a week					
17	You do not always consult the school manager before a payment is made.					
18	You periodically carry out reconciliation for students' records					
19	You record all disbursements					
20	You periodically account for reconciliation with the bank statement					
21	You always account for a daily statement from banks on students' payments					
22	You ensure the accounts department is in charge of all monetary transactions					
23	There is available technology (ICT) for processing all accounting records					
24	You ensure all departmental budgets are properly scrutinized					
25	You ensure that all purchases are done by the procurement unit and that all supporting documents are attached.					

Thank you for your cooperation

APPENDIX 10 – QUESTIONNAIRE FOR THE STORE OFFICER

THE UNIVERSITY OF ZAMBIA

Dear Respondent

I am Oliver KABASO, a student at the University of Zambia studying for a Doctor of Philosophy degree. The topic of my research is **"Exploring school manager accountability practices in financial and material resource utilisation and implications on school performance in selected public secondary schools of the Copperbelt province of Zambia"** You have been sampled to respond to this questionnaire and your cooperation is greatly appreciated.

You need not write your identification and the information you will provide will strictly be used for academic purposes only and with the utmost **confidentiality**. You are, therefore, requested to answer the questions as frankly as you possibly can. Thank you in advance for your cooperation.

General Directions:

1. Please do not write your name anywhere on this questionnaire
2. Each statement has a scale of five numbers [5] [4] [3] [2] [1]. You are requested to rate each statement in relation to 5 = Strongly Agree, 4 = Agree, 3 = somewhat agree, 2 = Not sure, 1 = Disagree by **Ticking** (✓) in the box.
3. Please give answers to each closed-ended item as appropriately as possible.

Part 1: Demographic data of respondents

1. Sex: Male Female
2. Age: ≤ 25 years 26-30 years 31 - 35 years
36-40 years 41-45 years ≥ 45 years
3. Educational Level:
Certificate level College diploma
BA/BSC/ B.Ed MA/MSc If other specify:
4. How many years have you been in service: ≤ 5 years 6-15 years 16-25 years ≥26 years
5. How many years have you served as a teacher:
6. How many years have you served as a store officer at the current station:

Part 2: Monitoring and Control of Material Resources

S/N	Task/Activity/Responsibility	Scale				
		5	4	3	2	1
1	You sometimes perform monthly and quarterly stock checks					
2	You are always reminded to prepare monthly inventory reports for management use;					
3	You sometimes reconcile stock book quantities with physical quantities, Analyze, Interpret, and investigate the resulting variance;					
4	You ensure that all Goods Received Notes have been raised;					
5	You always ensure that the goods received are matched with the actual invoices from the supplier;					
6	You receive stock from vendors via the procurement section; inspect supplies and accept or reject some depending on quality and specification given vis-à-vis purchase orders etc.					
7	You maintain a database for all stocks and piles reports on any shortages, losses, obsolete items, and expired stocks for the attention of Superior					

Part 3: Stores accountability tools and compliance

S/N	Accountability and compliance	Tick (√)				
		5	4	3	2	1
1	a) You have and use a store ledger					
	b) You do not fully know how to use the stores' ledger					
	c) You have and use a requisition book always					
2	You consistently use the requisition when distributing and disposing of items from stores					
3	You rarely ensure stock is checked for defects or no defects, the right quantity and right quality upon receipt before entering into the stock book					
4	You always issue goods received vouchers for items received					
5	Sometimes ensure that any officer that collects the items or goods from stores writes his or her name and signs in the requisition book for the items.					
6	You sometimes display material identification (Bin cards and labels) and ensure material codification					
7	You sometimes wait for approval from your supervisor before issuing items from stores					
8	Often cross-check for the return of borrowed materials					
9	There is an inventory control system in place					
10	a) You carry out inventory stock-taking once a month					
	b) You report to the supervisor on stock levels once a term					
	c) You only request for restocking when stock levels are almost finished					

Thank you for your cooperation

APPENDIX 11 - FACTOR ANALYSIS

1. Financial resource acquisition, practices, and utilisation

Communalities

	Initial	Extraction
You acquire financial resources in school through School Fees	1.000	.445
You acquire financial resources in school through Government Grants	1.000	.935
- Tuck Shop sales	1.000	.778
- Hall Hire	1.000	.778
- Production Unit	1.000	.752
- Civilian Day	1.000	.738
- Sale of Uniforms	1.000	.812

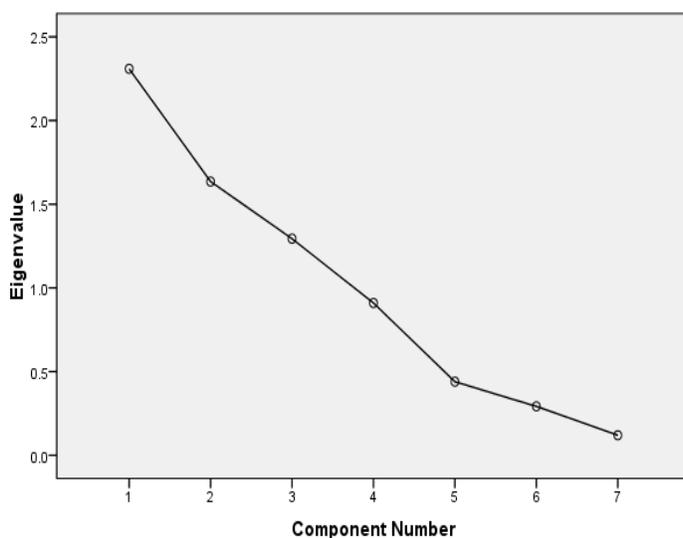
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.309	32.991	32.991	2.309	32.991	32.991	2.030	29.000	29.000
2	1.635	23.359	56.350	1.635	23.359	56.350	1.857	26.536	55.536
3	1.294	18.488	74.838	1.294	18.488	74.838	1.351	19.302	74.838
4	.910	12.998	87.836						
5	.440	6.279	94.115						
6	.292	4.177	98.292						
7	.120	1.708	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix

	Component		
	1	2	3
You acquire financial resources in school through School Fees	-.111	.557	-.349
You acquire financial resources in school through Government Grants	.666	.672	-.200
- Tuck Shop	.761	-.411	-.172
- Hall Hire	.481	-.057	.738
- Production Unit	.732	-.464	.031
- Civilian Day	-.709	-.463	.145
- Sale of Uniforms	-.066	.521	.732

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

2. Managerial accountability and compliance

Communalities

	Initial	Extraction
You always use fundraised funds by following the procedures	1.000	.595
You always follow laid down procedures in the use of government grants.	1.000	.490
You always account for monies raised from fundraising activities	1.000	.689
You ensure that financial resources are utilised as stipulated in the budget.	1.000	.699
You utilise financial resources on the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc.	1.000	.611
You use financial resources to maintain school surroundings and pay board workers.	1.000	.779
You always ensure that limited available resources are used for the intended purpose in the provision of education.	1.000	.836

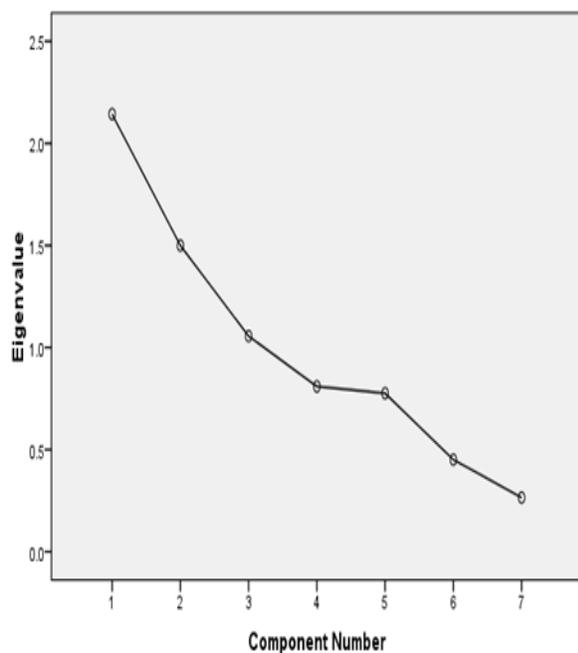
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.144	30.622	30.622	2.144	30.622	30.622	1.859	26.563	26.563
2	1.500	21.423	52.045	1.500	21.423	52.045	1.766	25.225	51.788
3	1.056	15.086	67.131	1.056	15.086	67.131	1.074	15.343	67.131
4	.809	11.560	78.691						
5	.776	11.084	89.775						
6	.451	6.440	96.215						
7	.265	3.785	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix

	Component		
	1	2	3
You always use fundraised funds by following the procedures	-.390	-.211	.631
You always follow laid down procedures in the use of government grants.	.136	.636	-.257
You always account for monies raised from fundraising activities	.752	.332	.115
You ensure that financial resources are utilised as stipulated in the budget.	.069	.383	.740
You utilise financial resources on the procurement of school educational materials and other requirements such as textbooks, chemicals, chalk, markers, etc.	.574	.523	.087
You use financial resources to maintain school surroundings and pay board workers.	.738	-.483	-.020
You always ensure that limited available resources are used for the intended purpose in the provision of education.	.726	-.535	.149

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

3. Practices in financial resource utilisation

Communalities

	Initial	Extraction
You always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts.	1.000	.780
You always ensure that the Budget practice procedure is in line with the MOE recommendations.	1.000	.711
There is a signing procedure in place for any payment on the voucher and cheque.	1.000	.332
(i) Sign off on funds for every activity in accordance with the budget	1.000	.715
(ii) authorize the disbursement of school funds as stipulated in the budget	1.000	.788

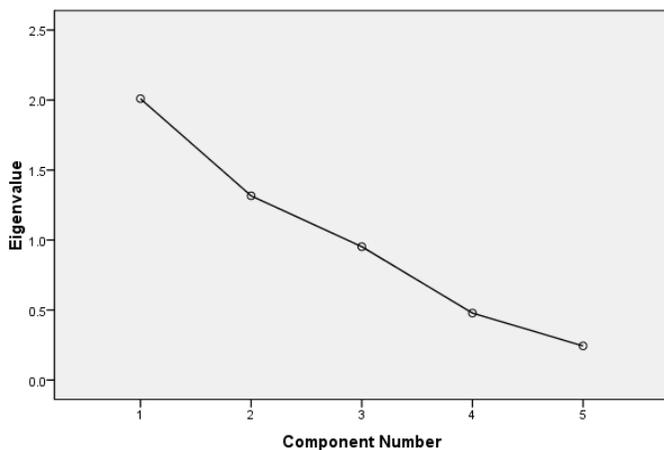
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.010	40.195	40.195	2.010	40.195	40.195	2.006	40.119	40.119
2	1.316	26.313	66.508	1.316	26.313	66.508	1.319	26.390	66.508
3	.953	19.052	85.560						
4	.478	9.566	95.126						
5	.244	4.874	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix

	Component	
	1	2
You always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts.	.877	.109
You always ensure that the Budget practice procedure is in line with the MOE recommendations.	.841	-.055
There is a signing procedure in place for any payment on the voucher and cheque.	-.551	.168
(i) sign off on funds for every activity in accordance with the budget	.381	.755
(ii) authorize the disbursement of school funds as stipulated in the budget	-.292	.838

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

4. Material resource acquisition

Communalities

	Initial	Extraction
You acquire materials through Government supplies/donations	1.000	.928
You acquire materials through stakeholders' donations	1.000	.946
You acquire materials through purchases that are made based on the annual plan schedule	1.000	.748
You ensure that needed materials are procured on time	1.000	.685

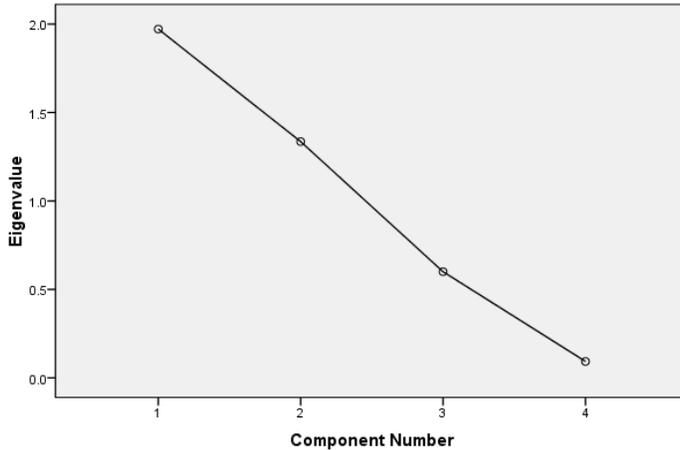
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.972	49.298	49.298	1.972	49.298	49.298	1.951	48.784	48.784
2	1.336	33.390	82.688	1.336	33.390	82.688	1.356	33.905	82.688
3	.600	14.996	97.684						
4	.093	2.316	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix

	Component	
	1	2
You acquire materials through Government supplies/donations	.963	.019
You acquire materials through stakeholders' donations	.936	.263
You acquire materials through purchases which are made based on the annual plan schedule	.034	.864
You ensure that needed materials are procured on time	-.407	.721

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

5. Compliance to procedure for financial resource utilisation

Communalities

	Initial	Extraction
You always involve your staff in the planning of material resource purchases	1.000	.868
You always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved.	1.000	.737
You always make follow ups and check material utilisation by responsible departments	1.000	.741
You sometimes ensure that materials are protected from wastage and abuse.	1.000	.620
You have an assigned body to control the availability and utilization of educational materials in the school.	1.000	.716
You sometimes countersign on the store's requisition book to authorise the release of materials from stores.	1.000	.927
You monitor resource arrival, resource use, and resource storage and retrieval; and reapportion unused or under-used resources.	1.000	.850

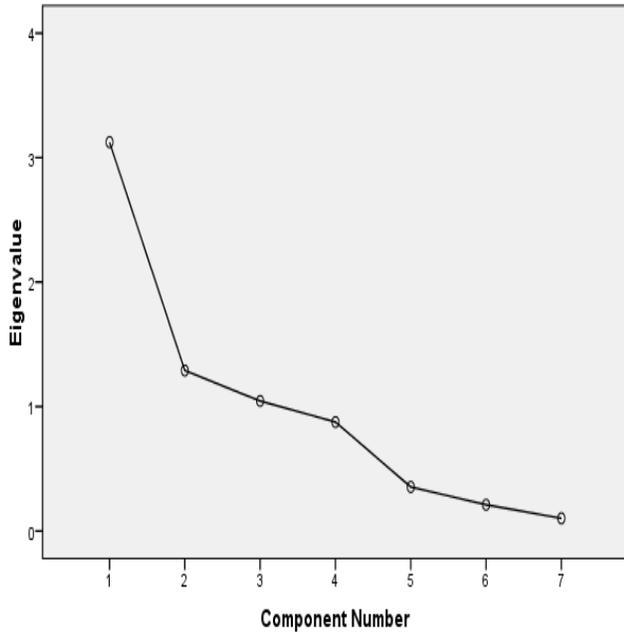
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.124	44.635	44.635	3.124	44.635	44.635	2.007	28.674	28.674
2	1.290	18.422	63.057	1.290	18.422	63.057	1.729	24.695	53.369
3	1.045	14.925	77.982	1.045	14.925	77.982	1.723	24.613	77.982
4	.875	12.507	90.489						
5	.354	5.055	95.544						
6	.210	3.006	98.550						
7	.101	1.450	100.000						

Extraction Method: Principal Component Analysis.

Scree Plot



Component Matrix

	Component		
	1	2	3
You always involve your staff in the planning of material resource purchases	.780	-.505	-.074
You always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved.	.720	-.447	.138
You always make follow ups and check material utilisation by responsible departments	.518	-.231	.648
You sometimes ensure that materials are protected from wastage and abuse.	.573	.273	-.467
You have an assigned body to control the availability and utilization of educational materials in the school.	.698	.436	.199
You sometimes countersign on the store's requisition book to authorise the release of materials from stores.	.592	.716	.253
You monitor resource arrival, resource use, resource storage, and retrieval; and reapportion unused or under-used resources.	.752	-.065	-.529

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

6. Economic resource utilisation

Communalities

	Initial	Extraction
Your school uses back-to-back printing	1.000	.818
You limit in the allocation of stationary to each department	1.000	.834
Promotion of e-mail or electronic communication to departments (soft copy)	1.000	.758
Teach students not to play with water in the toilet	1.000	.842
Avoid flushing the toilet unnecessarily	1.000	.844
Irrigate plants in the morning or in the evening to avoid rapid evaporation under the day's scorching sun	1.000	.749
Arrange for prompt repair to any dripping tap or leaking water main found	1.000	.820
Switched over to LED or CFLs compact florescent light in school	1.000	.503
Use sensors for turning lights On or Off in school	1.000	.843
Keep all windows, light bulbs and light fittings clean to maintain optimum lighting performance	1.000	.744
Maintain only those lighting which are essential for safety, security, or other specific purposes in areas that are infrequently occupied	1.000	.793
Have ensured maximized daylight usage	1.000	.907
Remind the last one to leave the classroom/office to switch off all electrical appliances	1.000	.799
Conduct routine checks to ensure unnecessary lighting/air-conditioners, and communal facilities (e.g. photocopiers) are switched off outside school/office hours	1.000	.672
Monitor the usage of electricity, water, and stationery	1.000	.750

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	Loadings		Total	% of Variance	Cumulative %
					% of Variance	Cumulative %			
1	4.303	28.683	28.683	4.303	28.683	28.683	2.930	19.531	19.531
2	2.939	19.592	48.275	2.939	19.592	48.275	2.739	18.260	37.790
3	1.790	11.932	60.208	1.790	11.932	60.208	2.411	16.073	53.864
4	1.520	10.134	70.342	1.520	10.134	70.342	2.204	14.695	68.559
5	1.127	7.512	77.854	1.127	7.512	77.854	1.394	9.295	77.854
6	.758	5.052	82.906						
7	.674	4.496	87.402						
8	.531	3.539	90.941						
9	.453	3.018	93.959						
10	.331	2.204	96.163						
11	.238	1.585	97.747						
12	.123	.823	98.570						
13	.111	.740	99.310						
14	.073	.484	99.795						
15	.031	.205	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix

	Component				
	1	2	3	4	5
Your school uses back-to-back printing	-.104	.627	.419	.405	-.275
You limit in the allocation of stationary to each department	-.115	.732	.167	.328	-.388
Promotion of e-mail or electronic communication to departments (soft copy)	.307	.122	-.440	.332	.588
Teach students not to play with water in the toilet	.839	-.053	-.280	-.063	-.230
Avoid flushing the toilet unnecessarily	.778	-.097	.456	-.136	.066
Irrigate plants in the morning or in the evening to avoid rapid evaporation under the day's scorching sun	.232	-.295	.564	.451	.295
Arrange for prompt repair to any dripping tap or leaking water main found	.557	.356	-.565	.172	-.184
Switched over to LED or CFLs compact florescent light in school	.543	-.231	-.079	-.383	.051
Use sensors for turning lights On or Off in school	.272	.671	.271	.088	.488
Keep all windows, light bulbs and light fittings clean to maintain optimum lighting performance	.534	.539	-.373	.165	.047
Maintain only those lighting which are essential for safety, security, or other specific purposes in areas that are infrequently occupied	.236	.584	.354	-.521	.017
Have ensured maximized daylight usage	.723	.374	.180	-.458	.044
Remind the last one to leave the classroom/office to switch off all electrical appliances	.808	-.133	-.030	.295	-.200
Conduct routine checks to ensure unnecessary lighting/air-conditioners, and communal facilities (e.g. photocopiers) are switched off outside school/office hours	.521	-.510	.215	.064	-.301
Monitor the usage of electricity, water, and stationery	.595	-.467	.217	.360	.035

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

APPENDIX 12 - SIGNIFICANCE OF THE VARIABLES IN THE MODEL

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
	1 (Constant)	6.275	1.307				4.802	.000		
You acquire financial resources in school through Government Grants	.155	.077	.326	2.017	.057	.320	.403	.167	.262	3.812
- Tuck Shop	.049	.032	.254	1.516	.144	-.132	.314	.126	.244	4.091
You always use fundraised funds by following the procedures	.030	.051	.120	.602	.554	.543	.130	.050	.172	5.809
You always follow laid down procedures in the use of government grants.	-.223	.088	-.582	-2.542	.019	-.220	-.485	-.210	.131	7.656
You always account for monies raised from fundraising activities	.103	.061	.420	1.673	.109	-.104	.343	.138	.109	9.203
You always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts.	-.214	.065	-1.025	-3.319	.003	.265	-.587	-.275	.072	13.916
You always ensure that the Budget practice procedure is in line with the MOE recommendations.	.266	.085	1.338	3.130	.005	.317	.564	.259	.038	26.640
You acquire materials through Government supplies/donations	-.197	.135	-.879	-1.461	.159	.280	-.304	-.121	.019	52.828
You acquire materials through stakeholders' donations	.051	.096	.253	.533	.600	.088	.116	.044	.030	32.834
You always involve your staff in the planning of material resource purchases	.402	.122	1.353	3.302	.003	-.275	.585	.273	.041	24.498
You always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved.	-.240	.065	-.971	-3.684	.001	-.345	-.627	-.305	.099	10.144
You always make follow ups and check material utilisation by responsible departments	-.161	.108	-.735	-1.494	.150	-.167	-.310	-.124	.028	35.305
You ensure that all revenue received in school is promptly banked before being used.	-.090	.124	-.170	-.724	.477	-.224	-.156	-.060	.124	8.035
Your school has a cheque register.	-.203	.163	-.216	-1.240	.229	.016	-.261	-.103	.226	4.426
You Organise school board meetings and give financial reports at the beginning of the term.	.126	.088	.342	1.427	.168	.208	.297	.118	.119	8.393
You sometimes follow public accountability guidelines as stipulated in The Public Finance Management Act No. 1 of 2018 and the procurement Act of 2020	.126	.048	.498	2.610	.016	-.023	.495	.216	.188	5.320
You always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services.	-.018	.061	-.066	-.299	.768	-.058	-.065	-.025	.141	7.082
You always review compliance with the existing Government financial regulations, instructions, and procedures;	.286	.074	1.124	3.860	.001	.142	.644	.320	.081	12.374
You prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board.	-.326	.128	-.482	-2.538	.019	-.225	-.485	-.210	.190	5.251
Your school uses back-to-back printing	.151	.138	.473	1.098	.285	-.093	.233	.091	.037	27.085
You limit in the allocation of stationary to each department	-.101	.085	-.339	-1.178	.252	-.237	-.249	-.098	.083	12.101
Promotion of e-mail or electronic communication to departments (soft copy)	-.249	.149	-.677	-1.668	.110	-.285	-.342	-.138	.042	24.015
Teach students not to play with water in the toilet	-.099	.098	-.322	-1.007	.325	-.204	-.215	-.083	.067	14.900
Avoid flushing the toilet unnecessarily	.099	.065	.338	1.516	.144	-.119	.314	.126	.138	7.263

a. Dependent Variable: You acquire financial resources in school through School Fees

APPENDIX 13 - ANALYSIS OF VARIANCE

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.466	24	.186	5.203	.000 ^a
	Residual	.751	21	.036		
	Total	5.217	45			

- a) Predictors: (Constant), Avoid flushing the toilet unnecessarily, School uses back-to-back printing, Always follow laid down procedures in the procurement of teaching and learning materials due to the long processes involved., Always ensure that cash received by the school from other sources (such as Production Unit), is recorded in the books of accounts., Acquire financial resources in school through Government Grants, School has a cheque register, Organise school board meetings and give financial reports at the beginning of the term., Always account for monies raised from fundraising activities, Sometimes follow public accountability guidelines as stipulated in the Public Finance Management Act No. 1 of 2018 and the procurement Act of 2020., Always follow laid down procedures in the use of government grants., Prepare a school budget in consultation with all concerned stakeholders such as heads of departments, teachers, school council representatives, and the School Education Board. Tuck Shop, Always uses fundraised funds by following the procedures, Acquire materials through stakeholders' donations, Promotion of e-mail or electronic communication to departments (soft copy) You always ensure compliance with the ZPPA Act and Procurement guidelines in the purchase of goods and services., Ensure that all revenue received in school is promptly banked before being used., Always ensure that the Budget practice procedure is in line with the MOE recommendations., Teach students not to play with water in the toilet, Always review compliance with the existing Government financial regulations, instructions, and procedures; Limit in the allocation of stationary to each department, Always involve your staff in the planning of material resource purchases, Always make follow ups and check material utilisation by responsible departments, Acquire materials through Government supplies/donations