

**HUMAN RESOURCE MANAGEMENT PRACTICES, SCHOOL  
INFRASTRUCTURE AND ACADEMIC PERFORMANCE OF SECONDARY  
SCHOOLS IN MACHAKOS COUNTY, KENYA**

**AGNES WANZA MUTUKU**

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## DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been submitted to any other university or institution other than Machakos University.

Signature\_\_\_\_\_

Date\_\_\_\_\_

**Agnes Wanza Mutuku**

**D86/7335/2016**

This thesis has been submitted for examination with our approval as the University Supervisors.

Signature\_\_\_\_\_

Date\_\_\_\_\_

**Prof. Robert Arasa**

**School of Business and Economics**

**Machakos University**

Signature\_\_\_\_\_

Date\_\_\_\_\_

**Dr. Jacinta Kinyili**

**School of Business and Economics**

**Machakos University**

## **DEDICATION**

This thesis is dedicated to my children Lillian, Melody and Moses. Thank you for your endless prayers and support. May God bless you.

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## TABLE OF CONTENTS

DECLARATION .....	ii
DEDICATION .....	iii
ACKNOWLEDGEMENT .....	iv
LIST OF TABLES .....	xi
LIST OF FIGURES .....	xiii
DEFINITION OF TERMS .....	xiv
ABBREVIATIONS AND ACRONYMS .....	xvii
ABSTRACT.....	xx
CHAPTER ONE .....	1
1.0 INTRODUCTION .....	1
1.1 Background of the Study .....	1
1.1.1 Concept of Organizational Performance.....	2
1.1.2 The Concept of Academic Performance .....	3
1.1.3 Human Resource Management Practices.....	6
1.1.4 Global Perspective of Human Resource Management Practices .....	7
1.1.5 Regional Perspective of Human Resource Management Practices .....	8
1.1.6 Human Resource Management Practices in Kenya .....	10
1.1.7 Human Resource Management Practices in Kenyan Secondary Schools ..	12
1.1.8 Performance of Secondary Schools in Machakos County .....	15
1.2 Statement of the Problem.....	18
1.3 Objectives of the Study .....	20
1.3.1 General Objective .....	20
1.4 Research Hypotheses .....	21

1.5 Scope of the Study .....	21
1.6 Significance of the Study .....	22
1.7 Limitations of the Study.....	23
1.8 Assumptions of the Study .....	24
CHAPTER TWO .....	25
LITERATURE REVIEW .....	25
2.1 Introduction.....	25
2.2 Theoretical Review .....	25
2.2.1 Resource Based View Theory.....	25
2.2.2 Universalistic Theory.....	28
2.2.3 Human Capital Theory.....	31
2.3 Theoretical Review of Human Resource Management Practices and Performance	32
2.3.1 Organizational Performance .....	32
2.3.2 Staff Recruitment and Selection and performance .....	35
2.3.3 Staff Training and Development and performance.....	37
2.3.4 Staff Compensation and Performance .....	39
2.3.5 Staff Safety and Performance .....	41
2.4 School Infrastructure and Performance .....	43
2.5 Empirical Literature .....	45
2.5.1 Organisational Performance.....	45
2.5.2 Staff Recruitment and Selection and Performance .....	48
2.5.3 Training and Development Practices and Performance.....	53
2.5.4 Compensation Practices and Performance.....	61
2.5.5 Staff Safety and Performance .....	69
2.5.6 School Infrastructure and Performance .....	72

2.6 Critique of Existing Literature .....	76
2.7 Research Gaps.....	80
2.8 Conceptual Framework.....	82
CHAPTER THREE .....	86
RESEARCH METHODOLOGY.....	86
3.1 Introduction.....	86
3.2 Research Philosophy .....	86
3.3 Research Design.....	87
3.4 Target Population.....	89
3.5 Sampling Procedure and Sample Size .....	90
3.6 Data Collection Instruments .....	92
3.6.1 Operationalization and Measurement of Variables.....	93
3.7 Data Collection Procedures.....	95
3.8 Piloting.....	95
3.9 Validity .....	96
3.10 Reliability .....	97
3.11 Data Analysis and Presentation .....	99
3.11.1 Qualitative Data Analysis and Presentation.....	99
3.11.2 Quantitative Data Analysis and Presentation.....	100
3.11.3 Diagnostic Tests.....	104
3.12 Ethical Considerations .....	106
3.12.1 Voluntary and Informed Consent.....	107
3.12.2 Confidentiality and Anonymity .....	107
3.12.3 Respect for Privacy .....	108
3.12.4 Data Protection.....	109

CHAPTER FOUR.....	110
DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS .....	110
4.1 Introduction.....	110
4.2 Response Rate.....	110
4.3 Background Information of the Respondents .....	110
4.3.2 Age of the Respondents .....	112
4.3.3 Highest Level of Education of the Respondents.....	113
4.3.4 Year of Graduation from University.....	114
4.3.5 Period of Working as a Principal .....	115
4.3.6 Category of School .....	116
4.3.7 Sub-County where the School is Located.....	117
4.3.8 Type of School.....	118
4.3.9 Summary of Demographic Characteristics of Key Informants.....	120
4.4 Descriptive Analysis .....	121
4.4.1 Recruitment and Selection of Teaching Staff .....	122
4.4.2 Teaching Staff Training and Development.....	136
4.4.3 Teaching Staff Compensation.....	151
4.4.4 Teaching Staff Safety.....	168
4.4.5 Other HRM Practices influencing Academic Performance .....	178
4.4.6 School Infrastructure.....	180
4.4.7 Academic Performance of Secondary Schools in Machakos County.....	188
4.5 Model Assumptions Tests.....	206
4.5.1 Test for Normality.....	206
4.5.2 Test for Multicollinearity .....	207
4.5.3 Tests of Linearity .....	208



4.6 Correlation Analysis .....	212
4.7 Regression Analysis and Hypothesis Testing .....	215
4.7.1 Influence of Recruitment and Selection of Teaching Staff on Academic Performance .....	215
4.7.2 Influence of Teaching Staff Training and Development on Academic Performance .....	220
4.7.3 Influence of Teaching Staff Compensation on Academic Performance...	223
4.7.4 Influence of Teaching Staff Safety on Academic Performance.....	226
4.7.5 Human Resource Management Practices, School Infrastructure and Academic Performance .....	229
4.8 Chapter Summary .....	239
CHAPTER FIVE .....	240
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	240
5.1 Introduction.....	240
5.2 Summary of Findings.....	240
5.2.1 Recruitment and Selection of Teaching Staff and Academic Performance of Schools.....	241
5.2.2 Teaching Staff Training and Development and Academic Performance of Schools.....	243
5.2.3 Teaching Staff Compensation and Academic Performance of Schools ...	244
5.2.4 Teaching Staff Safety and Academic Performance of Schools .....	246
5.2.5 HRM Practices, School Infrastructure and Academic Performance of Schools.....	247
5.3 Conclusions.....	248
5.4 Recommendations.....	252

5.4.1 School Management.....	253
5.4.2 Ministry of Education .....	256
5.4.3 Teachers Service Commission.....	258
5.5 Suggestions for Further Research .....	259
REFERENCES .....	260
APPENDICES .....	280
Appendix I: Participant Information Sheet.....	280
Appendix II: Consent Form .....	283
Appendix III: Questionnaire for Respondents .....	284
Appendix IV: Interview Schedule .....	297
Appendix V: Validity Test Results .....	299
Appendix VI: KCSE Performance in Machakos County (2013-2019) .....	305
Appendix VII: Sample KCSE Results From Schools in Other Counties .....	306
Appendix VIII: Top Twenty (20) Schools Mean Score per Year.....	312
Appendix IX: Bottom 20 Secondary Schools.....	313
Appendix X: Research Authorization from the University .....	314
Appendix XI: Approval from County Direction of Education Office.....	315
Appendix XII: Research Permit.....	316

## LIST OF TABLES

Table 3.1: Target Population.....	89
Table 3.2: Sample Size .....	91
Table 3.3: Operationalization and Measurement of Variables .....	94
Table 3.4: Reliability Results.....	98
Table 4.1: Year of Graduation from University.....	115
Table 4.2: List of Participants: In-depth Interviews .....	121
Table 4.3: Aspects of Recruitment and Selection of Teaching Staff.....	123
Table 4.4: Influence of Recruitment and Selection of Teaching Staff on Academic Performance .....	126
Table 4.6: Ways of Improving Recruitment and Selection of Teaching Staff.....	135
Table 4.7: Aspects of Teaching Staff Training and Development.....	137
Table 4.8: Ways in which Teaching Staff Training and Development Influenced Academic Performance .....	142
Table 4.9: Other Aspects of Teaching Staff Training and Development Practiced in Schools.....	146
Table 4.10: Possible Ways of Improving Teaching Staff Training and Development .....	149
Table 4.11: Aspects of Teaching Staff Compensation.....	152
Table 4.12: Other Forms of Teaching Staff Compensation.....	155
Table 4.13: Key Informants' Responses on Ways Schools Compensate Teachers...	158
Table 4.14: Ways in which Teaching Staff Compensation Influenced Academic Performance .....	161
Table 4.15: Possible Ways of Improving Teaching Staff Compensation .....	166
Table 4.16: Aspects of Teaching Staff Safety .....	169
Table 4.17: Ways in which Teaching Staff Safety Influenced Academic Performance .....	173
Table 4.18: Possible Measures of Improving Teaching Staff Safety in Schools.....	177
Table 4.19: Other HRM Practices Influencing Academic Performance.....	179
Table 4.20: Aspects of School Infrastructure .....	182
Table 4.21: Infrastructure Required in the Sampled Schools in Order of Priority ....	186
Table 4.22: Aspects of Academic Performance.....	191
Table 4.23: Highest Mean Score for the School for the Past 6 years .....	193
Table 4.24: Students who have qualified for University in the Last 7 Years .....	194

Table 4.25: Reasons for Good Academic Performance.....	197
Table 4.26: Reasons for Poor Academic Performance .....	199
Table 4.27: Key Informants Responses on Why Students Do or Do Not Attain Good Results.....	202
Table 4.28: Measures to Enhance Academic Performance in Schools.....	205
Table 4.29: Normality Test Results .....	207
Table 4.30: Multicollinearity Test Results.....	208
Table 4.31: Correlation Matrix .....	213
Table 4.32: Recruitment and Selection of Teaching Staff and Academic Performance .....	217
Table 4.33: Teaching Staff Training and Development and Academic Performance	221
Table 4.34: Teaching Staff Compensation and Academic Performance .....	224
Table 4.35: Staff Safety and Academic Performance .....	227
Table 4.36: Joint Influence of HRM Practices on Academic Performance before Moderation.....	233
Table 4.37: Stepwise Regression Results showing the on the Moderating Effect of School Infrastructure on the Relationship between HRM Practices and Academic Performance .....	235

## LIST OF FIGURES

Figure 4.1: Gender of the Respondents.....	111
Figure 4.2: Age of the Respondents.....	112
Figure 4.3: Highest Level of Education of the Respondents .....	114
Figure 4.4: Period of Working as a Principal .....	116
Figure 4.5: Category of School.....	117
Figure 4.6: Sub-County where the School is Located .....	118
Figure 4.8: Whether the School Performed Well.....	189
Figure 4.9: Scatter Plot for the Relationship between Recruitment and Selection of Teaching Staff and Academic Performance .....	209
Figure 4.11: Scatter Plot for the Relationship between Teaching Staff Safety and Academic Performance.....	211

## DEFINITION OF TERMS

- Academic performance:** The students and school scores in K.C.S.E. examinations administered by K.N.E.C. (Biama,2014).
- Compensation:** Financial incentives and non-financial incentives received by an employee in exchange for services offered to an organization (Armstrong, 2010).
- County Secondary Schools:** Include someday schools in cities and major urban centers. Their catchment is mainly the host county of the candidate. Admission to these schools is based on the home county of the candidate. They charge low fees than extra county (Sessional Paper No. 1. 2019).
- Development:** The planned growth and expansion of knowledge and expertise beyond the present job requirement (Noe, 2006).
- Extra-County secondary schools:** Secondary Schools that are the second-tier National Centers of education excellence. These schools complement national schools in promoting integration and benchmarking educational standards in their regions. They attract 40 percent of students across the country and another 40 percent from host district (Sessional Paper No. 1. 2019).

**Human Resource Management Practices:** All activities within an organization aimed at managing all the human resources within the organization for achievement of organizational goals (Armstrong, 2010).

**National schools:** Schools established for purposes of stimulating education standards and fostering national unity and social cohesion. These are boarding schools whose catchment area is 100 per cent national and admission is based on merit and students' choice (Ministry of Education, 2015).

**Occupational safety:** The science of anticipation, recognition, evaluation and control of hazards arising from the workplace that could impair the wellbeing of workers. It is concerned with protecting the safety, health and welfare of people engaged in employment or work (Osha Act, 2017).

**School infrastructure:** These include classrooms, laboratories, halls, dormitories, games equipment sanitation facilities within a school setup (World Bank 2018) .

**Secondary school:** A school level that provides education after primary school level. A secondary school prepares students for admission to tertiary institutions or university for learning ( GOK. 2014).

**Staff recruitment practices:** The process of finding and hiring the best qualified candidates for a job opening in a timely and cost effective manner. It includes analyzing the requirements of a job, attracting employees and integrating employees to the job (Armstrong, 2010).

**Staff selection:** The process of screening interested candidates in order to reduce their number and hire the best ( Cole,2006).

**Staff training:** The formal activities designed by an organization to help its employees to acquire the necessary skills and knowledge that will enable them to accomplish their tasks as per organizational policies (Dessler,2011).

**Sub-county secondary schools:** These are basically day schools; some have a boarding wing. They draw their students solely from the host sub-county. They are also called CDF schools. They charge minimal fees ( GOK,MOE. 2014) .



## **ABBREVIATIONS AND ACRONYMS**

<b>BOM:</b>	Board of Management
<b>CBA:</b>	Collective Bargaining Agreement
<b>CBO:</b>	Community Based Organizations
<b>CCTV:</b>	Closed-Circuit Television
<b>CDE:</b>	County Director of Education
<b>CDF:</b>	Constituency Development Fund
<b>CEMASTEА:</b>	Centre for Mathematics, Science and Technology Education in Africa
<b>CLT:</b>	Central Limit Theorem
<b>EFA:</b>	Education for All
<b>FBO:</b>	Faith Based Organizations
<b>GOK:</b>	Government of Kenya
<b>GPA:</b>	Grade Point Average
<b>HOD:</b>	Head of Department
<b>HR:</b>	Human Resource
<b>HRM:</b>	Human Resource Management
<b>HRMP:</b>	Human Resource Management Practices
<b>ICT:</b>	Information and Communication Technology

<b>ILO:</b>	International Labour Organization
<b>IT:</b>	Information Technology
<b>KCSE:</b>	Kenya Certificate of Secondary Education
<b>KEMI:</b>	Kenya Education Management Institute
<b>KNEC:</b>	Kenya National Examination Council
<b>KNUT:</b>	Kenya National Union of Teachers
<b>KPSA:</b>	Kenya Private Schools Association
<b>LCD:</b>	Liquid Crystal Display
<b>MOE:</b>	Ministry of Education
<b>NACOSTI:</b>	National Council for Science, Technology and Innovation
<b>NEMIS:</b>	National Education Management Information Systems
<b>NESP:</b>	National Economic Security Program
<b>NGO:</b>	Non-Governmental Organizations
<b>OECD:</b>	Organization for Economic Co-operation and Development
<b>OHS:</b>	Occupational Health and Safety
<b>PPE:</b>	Personal Protection Equipment
<b>PTA:</b>	Parent Teacher Association
<b>RBV:</b>	Resource Based View

<b>SA:</b>	South Africa
<b>SES:</b>	Supplemental Education Services
<b>SMASE:</b>	Strengthening of Mathematics and Science Education
<b>SPSS:</b>	Statistical Package for Social Sciences
<b>SRP:</b>	Students Role Performance
<b>TETF:</b>	Teacher Education Task Force
<b>TOYA:</b>	Teacher of the Year Award
<b>TSC:</b>	Teachers Service Commission
<b>UNESCO:</b>	United Nations Educational, Scientific and Cultural Organization
<b>USA:</b>	United States of America
<b>VIF:</b>	Variance Inflation Factor
<b>WIBA:</b>	Work Injury and Benefits Act
<b>WLB:</b>	Work Life Balance

## ABSTRACT

Academic performance trend in K.C.S.E. in Machakos County has been on a declining trend in the recent past, hence the need for the study. The aim of the study was to establish the influence of Human Resource Management practices on academic performance of secondary schools in Machakos County. The study sought to examine the influence of teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation and teaching staff safety on the academic performance of secondary schools in Machakos County, Kenya. The study also sought to establish whether school infrastructure moderated the relationship between Human Resource Management practices and academic performance of these schools. The Resource Based Theory, Universalistic Theory and the Human Capital Theory informed this study. The study was anchored on pragmatic paradigm and used mixed methods research design. The target population was 413 secondary schools in Machakos County. The school principals were selected as units of observation. Purposive sampling was used to select six secondary schools from where the key informants were drawn. These consisted of the two national, top two performing and bottom two non performing secondary schools in Machakos County. The rest of the schools were selected using stratified sampling based on the category of school where a sample size of 201 was obtained. The study used primary data collected using self-administered questionnaires and interview schedules. Qualitative data collected was analysed using content analysis while for the quantitative data, descriptive analysis and inferential analysis were carried out. Both bivariate and multivariate regression analyses were conducted to determine the relationship between the study variables. The findings of the study were that Human Resource Management practices under study namely teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation and teaching staff safety positively and significantly influenced the academic performance of secondary schools in Machakos County. The findings showed that school infrastructure significantly moderated the relationship between Human Resource Management practices and the academic performance of the schools where it strengthened the influence that these practices had on the academic performance of the schools. Therefore, the study concluded that Human Resource Management practices were significant variables that influenced the academic performance of secondary schools in Machakos County and hence, when evaluating the factors likely to impact the academic performance of these schools, it is prudent for the schools' management to take in to account these practices. The study also concluded that when the different infrastructural priority areas for the schools were addressed, it was likely that the effectiveness of different Human Resource Management practices in yielding better academic performance in these schools would be enhanced. Several recommendations for improvement were made, key among them that: The Teachers Service Commission ought to continuously and regularly review the compensation packages for teachers so that they are at all times competitive and also market based. For the private schools, the study recommends for diversification of income streams by the schools' management so that the compensation packages given to their teachers are competitive. The study recommends that schools' management should also develop operational policies to guide the design of their training and career development programs to make them more inclusive, relevant and comprehensive. The study recommends that the Ministry of Education should design frameworks and offer assistance required by secondary schools to set up efficient safety and security systems in schools and champion for more budgetary allocations from the government in order to increase funding required for infrastructural development in public schools. For private schools, the study recommends that the government should enforce policies that compel these schools to have the requisite basic school infrastructure required by students to adequately prepare for examination.

# **CHAPTER ONE**

## **1.0 INTRODUCTION**

This chapter presents the background information, the statement of the problem, the general objective, specific objectives, hypotheses, scope and significance of the study.

### **1.1 Background of the Study**

Human Resource Management practices are key determinants of employees performance in almost all organizations. Human Resource Management enables organizations to achieve expected organizational performance and competitiveness by achieving desired employee performance goals (Armstrong, 2010). There are some significant HRMP that should engage the organization's business strategy. Some of these include attracting and choosing potential employees (recruiting and selection), educating employees how to perform their jobs and preparing them for the future (training & development), rewarding employees (compensation) and creating a positive and healthy work environment (safety) (Dessler,2011).

An organization performs utmost when the selected practices are managed well. Universal perspective on HRM opines that selection of the best practices gain universal acceptance and pave way for high performance. Research has shown that Human Resource Management practices have the ability to create firms that are more intelligent, flexible, and competent than their rivals through the application of policies and practices that concentrate on recruiting, selecting, training skilled employees and directing their

best efforts to cooperate within the resource bundle of the organization (Rawashdeh & Al-Adwan, 2012).

In organizations, the workers must be treated as a valuable asset. The organizations mission will be achieved in an efficient way if the skills of the workers are developed. In the present competitive environment, the success of any organization depends on the caliber of their human resources and their programs (Rehman, 2011).

### **1.1.1 Concept of Organizational Performance**

Organizational performance is an indicator which measures how well an enterprise achieves its objectives (George et al, 2019). Organizational performance is concerned with product or service quality, product or service innovation, employee attraction, employee retention, customer satisfaction, management/employee relation and employee relation (Al Khajeh, 2018). Berberoglu (2018) observes that the effective functioning of an organization is enhanced where employees perform their jobs at a satisfactory level of proficiency and there are opportunities for the continued development and training not only in their jobs, but as well develop them for other jobs for which they might later be considered when all the practices are managed well.

According to Richard (2009), organizational performance comprises with three areas of company outcomes such as financial performance (return on assets, return on investment, profits), product market performance (sales and market share) and shareholder return. Effective implementation of HRMP in organizations is a key source of competitive advantage and it has a positive relationship with organizational performance.(Collins & Smith, 2016).

The application of Human Resource Management practices therefore, can have a major influence on enhancing job satisfaction hence performance. Embracing Human Resource Management leads to an increased organizational performance. A number of studies have found a favorable relationship between high-performance work practices and different measures of company performance (Uysal &Koca, 2019).

### **1.1.2 The Concept of Academic Performance**

Academic performance is a threshold assessment used to measure a student's ability to meet performance criteria. Grades are used to measure learning or knowledge and attainment of learning objectives and acquisition of skills and competencies (York et al., 2015). Academic performance of a student is regarded as the observable and measurable behavior in a particular situation (Komba, Hizza & Jonathan, 2013).

Educational institutions are mandated to use education as a tool for social transformation and the quality of a school is measured by the quality of grades students produce through academic performance (Biama, 2014). The measure of academic performance can also be used to assess the teachers' effectiveness. Good schools are those that are able to groom the students well enough to achieve the set standards. This is measured by use of students' academic performance both at school level and nationally (Molokomphale, 2015).

Academic performance as measured by the examination results is the aggregate score in a course or grade point average (GPA) and is one of the major goals of a school globally

(Oredein, 2016). The social and economic development of a country is directly linked with student academic performance (Mushtaq & Khan, 2012). Students with quality results become great leaders and manpower for the country thus, responsible for country's economic and social development. York et al (2015) note that academic failure is not only frustrating to pupils and parents; its effects are equally grave on the society in terms of death of manpower in all spheres of the economy and politics.

Arif (2017) argues that in the US educational system, student advancement is predicated on graded performance in a series of classes. Failing to achieve passing grades has numerous additional implications during secondary school and beyond the school level. Students' academic failure is a major determinant of status attainment and adult well-being. Low-performing students are less likely to graduate from high school and less likely to go to college. This increases high school dropouts, and substantially lower adulthood wages.

Kajunju (2015) observes that in Africa, there is a growing recognition among African governments on the need to invest in and expand access to secondary education and hence quality grades. Secondary education is essential in preparing students for higher education and important life skills in S.A., the quality of education of learners is encouraged to remove intergenerational cycle of poverty so that children do not inherit the social standing of their parents or caregivers (Tamrat, 2017).

In Nigeria, good secondary education, either from the public or private schools, backed with complete Ordinary Level papers, qualifies the candidate for admission into tertiary institutions. Most parents and secondary schools' students aspire to have quality grades



(Odukoya et al., 2018). Further, children who complete secondary education are expected to have acquired lifelong skills and be competitive in the global village when it comes to their employability (Kajunju, 2015). This therefore, calls for students to excel academically or hopefully perform to the satisfaction of the nation.

Education outcomes are measured through examinations which have been accepted as an important aspect of the educational system. In Kenya, the Kenya Certificate of Secondary Education (KCSE) examination administered by the Kenya National Examinations Council (KNEC) measures student performance. It is used as the main basis for judging a student's ability and also as a means of selection for educational advancement and employment (Kieti, 2017). The education system in Kenya places a minimum grade C+ which students must obtain before they are admitted to public and private universities (Kigotho, 2012).

In the Kenyan context, education is considered a basic need and academic performance is positioned quite high on the national agenda with educators and policy makers putting effort in testing, accountability and other related concerns (Kaimenyi, 2013). Further, the Kenya education arrangement is dominated by examination oriented training, where passing examinations is the only standard for performance since there is no internal structure of monitoring learning achievements. Academic performance is used to grade schools and most importantly to determine one's career path. The 'good schools' are acclaimed to be those that are able to groom the students well enough to achieve the set standards (Kabera, 2012).

### **1.1.3 Human Resource Management Practices**

Human Resource Management practices are central to the improvement of the quality of services offered by organizations. Wheelen and Hunger (2013) note that employees as human resources are the most important resources within an organization that help in achieving a competitive advantage. HRMP are important pillars in building and maintaining trust in employees for they shape the employment relationship between the employee and the employer (Tang, Chen, Jiang, Paille & Jia, 2011).

Human Resource Management practices refer to organizational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfillment of organizational goals (Tiwari & Saxena, 2012). Effective HRM practices have the potential to create organizations that are more intelligent and flexible than their competitors through the use of policies and practices that focus on hiring, developing talented staff and synergizing their contribution within the resource bundle of the organization (Saeed, Afsar, Hafeez, Khan, Tahir & Afridi, 2019). They are aimed at improving the overall performance of employees within the organization, ultimately resulting in increased organizational performance.

In the contemporary business world, Human resource represents the most important resource and each organization strives to achieve a competitive advantage and improve organizational performance relative to competitors (Kianto, Sáenz & Aramburu, 2017). The purpose of this study was to examine the influence of Human Resource Management practices on secondary schools particularly recruitment and selection of teaching staff, teaching staff training and development, teaching staff compensation and teaching staff

safety on academic performance and whether school infrastructure moderated the relationship between these variables.

#### **1.1.4 Global Perspective of Human Resource Management Practices**

Human Resource Management practices have changed dramatically during the last two decades owing to globalization, privatization or deregulation, competition and technological advancements. The highly turbulent environment has forced organizations to adopt new workplace practices that lead to sustained levels of high performance (Ray & Ray, 2011). As firms enter into a more dynamic world of international business, and as the globalization of world markets continues at a fast pace, Human Resource Management issues appear to be gaining momentum (Namusonge, Gathungu & Iravo, 2015).

When employees are managed effectively through consistent practices, they are able to act flexibly in pursuit of the organization excellence. Wachira (2013) observes that worldwide, human resources have to be managed effectively if they are to generate value from other resources. HRM practices and performances have been studied and applied widely in different parts of the world. In the United States, McDonald (2017) recommends the use of training programs in field operations and franchising staff to improve service delivery. He recommends hands-on training programs to run successful organizations for the future.

In Britain, Bryson, Stokes and Wilkinson (2018) observe that schools that register improved academic performance have intense use of HRM practices, recruitment and proper selection. The two are correlated with substantial improvement in schools'

academic performance and workplace. In India, Pahuja and Dalal (2012) note that in banking industry, the successful use of five key Human Resource practices, recruitment, reward system, training and skill development practices and effective communication leads to performance of banking industry in the emerging economy.

In Malaysia, Faizuddin (2018) observes that where best HRM practices among head teachers of public and private schools have been put in place, there is attainment of institutional and educational goals. The implication is that proper support and professional training of teachers is necessary in national and private schools. When this is done institutions and schools will realize best performance. He recommends that the head teachers should have authority to practice and manage human resources in schools.

In Pakistan, Hassan (2016) from studies done in a textile industry observes that HRM practices: compensation, career planning, performance appraisal, and training and employee involvement have a positive impact on employees' performance. These practices can also be used to turn around production in other organizations. In Palestine, studies by Salama, Al Shobaki, Abu Naser, AlFerjany and Abu Amuna (2017) at the Islamic University concluded that HRM practices are positively related to employee performance. They argue that the same could be applicable to other academic institutions in Palestine and other countries.

#### **1.1.5 Regional Perspective of Human Resource Management Practices**

Africa as a region is a developing economy witnessing development and transformation in many aspects. In order to sustain the positive change, each country requires an innovative transformational and development-oriented public service at regional,

national, local and community level. Mutahaba (2011) observes that the public service manning the innovation must be competent and capable human resource managers. In Nigeria, Oaya, Ogbu and Remilekun (2017) observe that recruitment and selection strategy in the manufacturing companies have an influence on organizational efficiency hence performance. They recommend that organizations can make use of employment agencies to recruit the best manpower. This is because committed and active employees willing to be mentored and monitored enhance performance.

In Zimbabwe, Nyoni, Nyoni and Bonga (2017) observe that student academic performance in rural secondary schools is influenced by a conducive work environment, training and development and dedication to work. Chiedozie, Victor and Sunday (2018) argue that among other practices recruitment process, proper placement of teachers in schools, regular performance evaluation has positive influence on students' academic performance. These studies indeed confirmed that HRM practices do have a bearing on the performance of organizations and schools. The goal of each organization should be to detect, develop and utilize the skills and potentials of all the people in the organization.

In Kenya, literature available on Human Resource Management practices as presented by Kabera (2012) established that Human Resource Management practices are perceived as a measure of promoting managerial knowledge among the employees so as to make them more responsible and capable to run the business. In most cases, organizations especially the NGOs have taken measures to introduce several employees to their direct business as an attempt of making them aware of what is needed at the top levels so as to minimize changes in the managerial strategies.

The Government of Kenya aims to achieve and sustain an annual economic growth rate of 10% for it to realize the Kenya Vision 2030 (Government of Kenya, 2017). Organizations have to formulate and implement sound practices, including HRMP that would make them to not only attract, but retain, motivate, sustain and make optimum use of a workforce that can make them build a sound human resource base.

### **1.1.6 Human Resource Management Practices in Kenya**

Human Resource Management practices relate to specific practices, formal policies and philosophies that are designed to attract, develop, motivate and retain employees who ensure the effective functioning and survival of the organization (Opiyo, Marijani, Muendo, Odede, Leschen & Charo-Karisa, 2018). Good HR practices are crucial to organizational success, especially in a fast changing business (Nyakang'o, 2015). An organization can adopt a set of HRMP that suit its operational requirements. Among these are: employment security, targeted selection, workplace teams and decentralization and high pay. Since the year 2004 Kenya has embraced HR Management practices as a measure of service delivery (Mugambi, 2017). The public service, private sector and parastatals have put measures in place to ensure that HR management practices are enhanced.

Effective Human Resource Management practices have the potential to create organizations that are more intelligent and flexible than their competitors through the use of policies and practices that focus on hiring, developing talented staff and synergizing their contribution within the resource bundle of the organization. According to Keinan and Karugu (2016), HR comprises of the activities, policies, and practices involved in

obtaining, developing, utilizing, evaluating, maintaining, and retaining the appropriate number and skill mix of employees to accomplish the organization's objectives. A manager, whether in private or public sector, who underrates the critical role and underplays the importance of people in goal achievement, can neither be effective nor efficient (Wachira & Anyieni, 2017).

The Government of Kenya master plan notes that in order to enhance quality education provision in secondary schools, it is imperative to have a well-qualified and highly motivated teaching force capable of understanding the needs of learners and the curriculum (Republic of Kenya, 2012). Every educational system at every level depends heavily on the human resources for execution of its programs. Nwaka and Ofojebe (2020) state that teachers are the critical resources for effective implementation and realization of the educational policies and objectives at the practical level of classroom.

Studies done in Kenya by Kiiru (2013), Kilika et al. (2016), Gitonga, Kilika and Obere (2016), and Thiriku and Were (2016) indicate that strategic Human Resource Management can result to a number of benefits to modern organizations that range from: the ability of the organization to achieve its goals with minimal resistance, employee support of business strategies, it enhances organizational competitiveness, it promotes creativity and innovation among workers, it promotes top management support of plans formulated and enhances cooperation among workers and departmental synergies. This has promoted a corporate culture that enhances ethical practices and good citizen behavior.

Several academicians have attempted to study and understand why some organizations succeed while others fail in Kenya (Iravo, Ongori & Munene, 2013; Mugambi, 2017; Sagwa, 2014). These studies have confirmed that indeed HRM practices can improve performance in organizations. Midiwo (2016) did a study on influence of human resource information systems on performance in Kenyan public universities. The study concludes that employee performance is influenced by proper adherence to HRMP guidelines, mainly recruitment and selection. This suggests that where HRM practices are in place organizations will post good performance.

### **1.1.7 Human Resource Management Practices in Kenyan Secondary Schools**

There are eight thousand, eight hundred and ninety two (8892) public secondary schools and one thousand three hundred and fifty (1350) private secondary schools in Kenya (Economic Survey, 2017). Public secondary schools are further categorized as National schools, Extra County secondary schools, County secondary schools and Sub-County Secondary schools.

Public Secondary schools are managed by principals who are appointed by the Teachers Service Commission (Musera, Achoka & Mugasia, 2012). The principals are expected to improve professionalism and address the issue of capacity building. They play a key role in the achievement of goals and objectives of a school. The principals are required to undertake a one year Kenya Education Management Institute Diploma in Education Management course, for effective management and good governance of schools (Hossain & Musembi, 2012).



The Human Resource Management of public secondary schools is the function of the Teachers Service Commission (TSC). TSC is a corporate body that was established in 1967 by an Act of Parliament. It is charged with the responsibility for managing teachers in primary schools, secondary schools and tertiary institutions. It is mandated to perform the following core functions: teacher registration, recruitment and deployment, remuneration, discipline, and maintenance of teaching standards in Kenya. Besides these policies, the TSC has also delocalized some of the HR functions to the counties thus bringing them closer to teachers (Manthi, Kilika & Kimencu, 2018).

According to Onyango, Aloka and Raburu (2018), management of human resources affects the performance of schools. HRM practices employed in public schools including training and development, management style, performance and reward management and compensation, contribute to the performance of teachers in such schools.

Private schools are run and funded by private organizations or commercial companies or by individuals and also faith based organizations (World Bank Report, 2018). They range from low-income to high-income schools; expensive (for-profit) to least expensive (not-for-profit) private schools; and from well performing to not so well performing (Wekesa, 2012). In most private schools the Human Resource Management of the schools is left to the proprietor and the principal. This means that management of private education institutions is dependent on the ownership structure (Nyagah, Wachiuri & Imonje, 2017).

The Government of Kenya has made efforts to put in place HRM practices in public secondary schools; recruitment and selection of teaching staff, training and development, compensation and safety. The Government spends close to Ks. 415.3 billion annually in

the education sector, secondary schools included (Kenya National Bureau of Statistics Economic Survey, 2018). However, there seems to be a challenge in the way human resource management practices are put in place in respective schools as reflected in the academic performance in majority of the secondary schools in Machakos County.

Infrastructure in schools which includes adequate classrooms, equipped laboratories, halls, libraries, games equipment and sanitation facilities is seen as an important component of good academic performance (World Bank 2018). Academic achievement improves with improved building conditions and quality of most infrastructure in schools (Mokaya, 2014). Well-equipped classrooms with better physical facilities have a significant positive effect on the academic achievement on scores of secondary school students. It is assumed that students in schools with better infrastructure are comfortable and produce better results in examinations. Hussain (2014) further points out students from schools with quality infrastructure feel comfortable and have concentration on the lesson learning and obtain high scores.

Kassa and Singh (2016) argue that secondary schools differ markedly in terms of Human Resource Management practices which could be expected to contribute to the performance gap in the national examinations. It therefore seems important to ask whether good Human Resource Management practices as recognized in studies of organizational performance both in secondary schools and elsewhere could be applicable in secondary schools in Machakos County and if applying such practices could improve academic performance.

### **1.1.8 Performance of Secondary Schools in Machakos County**

In Machakos County there are four hundred and thirteen (413) secondary schools: three hundred and thirty one (331) Public schools and eighty one (81) private schools which offer the Kenya Certificate Secondary Examination. Among the public schools, there are two (2) National schools, eighteen(18) Extra County schools, forty three(43) County schools and two hundred and seven(207) Sub-County schools and eighty one(81) private schools (NEMIS, 2018).

The objectives of secondary education in Kenya is to prepare students to make a positive contribution to the development of society and to acquire attitudes of national patriotism, self-respect, self-reliance and self-discipline (National Economic Security Program 2013/2018). Secondary education provides the skills and tools to help meet a country's growing demands for highly skilled and educated workers in a globalized world (Amini, 2015). Schools like other organizations need to achieve their desired goals/objectives. One of the tools of measuring academic success are performance in examinations (York, Gibson& Rankin, 2015).

Statistics of (KCSE) analysis in the last six years, indicate that secondary schools in the County registered a mean score below that of the other schools of similar categories in other counties (Appendix 3). Schools in other counties of the same category post results with a higher index, for example in the national category; Friends school Kamusinga in Bungoma County in the year 2017 posted a mean of index 10.28, while Machakos School posted an index of 7.8.

Kenya Certificate of Secondary Education examination is taken at the end of the fourth year of secondary education. Learners who perform well are perceived to have received high quality education essential for sustainable socio-economic development and poverty eradication as opposed to those who perform poorly (Biama, 2014). The results on academic performance of secondary schools in Machakos County for the period of study shows that only a few students attained grade C+ and above. Few schools attained a mean of index 5 and above out of the expected highest mean of index 12 for the period 2013-2019. The county mean for the same period has been below 5 out of the expected 12 and constantly on the decline. This is shown in Table 1.1.

**Table 1.1: KCSE Performances in 2013 -2019 in Machakos County**

YEA R	TOTA L	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	C. MEAN
2019	27222	2	117	374	788	1198	1572	2274	3105	3810	5698	4930	863	3.744
2018	23856	4	53	210	531	906	1319	1751	2658	3641	5542	6158	1224	3.11
2017	23479	0	34	144	353	642	905	1414	2133	3252	5212	7620	1733	3.112
2016	21662	0	81	270	522	799	1163	1581	2144	3046	4515	6176	1365	3.29
2015	20891	12	153	437	763	1283	1808	2409	3133	3531	4118	2921	317	3.725
2014	19152	28	169	442	799	1151	1653	2179	2966	3356	3651	2470	284	4.799
2013	18416	18	171	728	998	257	1868	2381	2801	3392	2387	338	404	4.567

**Source: Machakos County Director of Education Office (2020)**

Despite the increasing number of candidates registered for KCSE each year, the results show a decline in quality grades and an increase in weak grades especially from 2013 to 2017. The results also show an increasing number of weak grades each year. The overall mean of the entire county has been below 5 out of the expected 12 for the period under

study, and on a constant declining trend. This is of great concern to stakeholders. The percentage of candidates scoring grade C+ and above in the county has been very low. For instance, in the year 2013 it was 27%; 2014-22.7%; 2015- 21.35%; 2016- 13.8%; 2017- 8.83% ; 2018 -12.68% and 2019-14.88%.

According to the Kenya Universities and Colleges Central Placement Service (KUCCPS, 2015) students who attain grade C+ and above qualify for a degree course in Kenya. The percentages demonstrate moderate academic performance. Candidates who score grade A get admission to prestigious courses like medicine, law and engineering. From the statistics, very few or none manage admission into these courses, for example, in the year 2016 and 2017 there was no student who scored A grade in the entire county. In the year 2018 only 4 students scored grade A, while in 2019 only 2 students scored grade A in the county. The years 2016 to 2018 had the highest number of the students scoring grades D and below. Students who attain grade C- are admitted for Diploma courses. Majority of the candidates who score grade D- and below end up in the informal sector. These are the majority among the candidates.

The performance in KCSE in Machakos county therefore implies that majority of the candidates cannot be admitted for the competitive premier degree courses. In Kenya the Ministry of Education observes that education is a means for developing and enhancing the human resources that the country needs in order to achieve industrial and technological advancement (Ministry of Education, 2015). The results therefore imply that very few candidates from Machakos County fit in the top cadre grade C+ and above. The long term implication is shortage of quality manpower nationally and in the county.

The performance in KCSE examination of secondary schools in Machakos County is, therefore, not sufficiently competitive, given that one aim of effective schools is to produce excellent grades by many students in examinations (Kirby, Hutchings & Francis, 2016).

## **1.2 Statement of the Problem**

York, Gibson and Rankin (2015) observe that one of the tools of measuring academic success is performance in examinations. The County has consistently recorded a mean score of less than 5 points and below out of the expected best mean score of 12 points for the last 6 years (2013-2019) in KCSE. Despite the high number of registered candidates, those who score C+ and above in the has been on a declining trend. For example in the year 2017 out of the registered 23479 candidates, 2078 candidates attained C+ and above. 21401 candidates attained C and below.

Statistics of KCSE analysis in the last six years, indicate that majority of the secondary schools in the County registered a mean score below that of the other schools of similar categories in other counties (Appendix 3). In the National category, Friends School Kamusinga in Bungoma County in the year 2017 posted a mean of index 10.28, while Machakos School posted a mean of 7.8. In the year 2017 Alliance Girls, a National school in Kiambu County posted a mean score of 9.52 while Kathiani girls of similar category posted a mean of 5.81. Machakos Girls, an Extra County school posted a mean index of 7.09 while Muthale Girls in Kitui posted an index of 9.65. Kyeni Girls an Extra County school in Embu posted a mean of 8.6 while Muthetheni Girls of similar category

posted a mean of 6.8. In the year 2015 Vyulya Girls an Extra County school posted an index mean 6.5 while Nguviu Girls in Embu posted a mean index 7.4

A number of factors could be attributed to declining performance trends, among them staff management, inadequate infrastructural facilities, low motivation, little or no supervision, indiscipline among the students or inadequate HRMP which are key to good performance (K'Obonyo, Busienei & Ogutu, 2013). Many studies have been done on some of the factors that affect performance of secondary schools. Studies by Olufemi, Adediran and Oyediran (2018), and Kormla (2012) addressed other areas like geographical factors, socioeconomic factors, and lack of resource materials, housing type and leadership practices but not HRM practices in secondary schools. Studies by Kepha (2014), Sang (2015) and Mutiso (2013) though conducted in different contexts, demonstrated that there was a link between human resource management practices and performance.

Karue and Amukowa (2013) addressed the concepts of entry behavior, home environment, Parent Teachers Associations (PTA) and narrowed down on day secondary schools in Embu County. They did not address Human Resource Management practices. Ndinza (2015) focused on head teacher management practices on students' academic performance in public secondary schools within Kitui Central Sub- County. The context of the study was narrow and addressed different concepts of supervision, communication and motivation.

Based on the declining trends of performance of KCSE in the County, there is a justifiable need for a study to examine the influence of Human Resource Management

practices and the moderating effect of school infrastructure on academic performance of secondary schools, and whether putting in place such practices would improve academic performance.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objective**

The general objective of the study was to examine the influence of Human Resource Management Practices, School infrastructure and academic performance of secondary schools in Machakos County, Kenya.

#### **1.3.2 Specific Objectives**

The study was guided by the following specific objectives:

- i. Examine the influence of recruitment and selection of teaching staff on academic performance of secondary schools in Machakos County.
- ii. Establish the influence of teaching staff training and development on academic performance of secondary schools in Machakos County.
- iii. Examine the influence of teaching staff compensation on academic performance of secondary schools in Machakos County.
- iv. Examine the influence of teaching staff safety on academic performance of secondary schools in Machakos County.
- v. Establish the moderating effect of school infrastructure on the relationship between Human Resource Management practices and academic performance of secondary schools in Machakos County.



## 1.4 Research Hypotheses

The study tested the following five research hypotheses:

- i. **Ho1:** There is no significant influence between recruitment and selection of teaching staff and academic performance of secondary schools in Machakos County.
- ii. **Ho2:** There is no significant influence between teaching staff training and development and academic performance of secondary schools in Machakos County.
- iii. **Ho3:** There is no significant influence between teaching staff compensation and academic performance of secondary schools in Machakos County.
- iv. **Ho4:** There is no significant influence between teaching staff safety and academic performance of secondary schools in Machakos County.
- v. **Ho5:** Moderating effect of school infrastructure on the influence between Human Resource Management practices and academic performance of secondary schools of in Machakos County is not significant.

## 1.5 Scope of the Study

HRM practices are many and varied. However, this study examined selected practices namely: teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation and safety of teaching staff and the effect of the moderator, school infrastructure. The reviewed practices were deemed to influence student's academic performance in KCSE. The practices also focused on the teaching staffs who are in charge of academic performance in secondary schools.

The choice of the practices was based on reviewed literature such as Mutiso and Kilika (2017), Biama (2014), Samuel, Thinguri and Koech (2020) and education reports such as MOE (2015) and KNEC (2013).

The choice of the County was appropriate since it had the highest investment of public and private secondary schools in the lower Eastern Region (Basic Education Statistical Booklet, 2016; Kenya Economic Survey, 2016). The County had also registered a declining trend in KCSE performance in the last seven years, 2013-2019, the period of the study. The study utilized primary and secondary data on KCSE performance for the period 2013-2019. Primary data was obtained through questionnaires and interviews from the principals of the secondary schools who were directly in charge of the human resources in the schools. Secondary data was gathered from published and unpublished education reports, journals, articles and individual schools' performance records for the period under study.

The study was conducted between June and September, 2020. All categories of secondary schools which offer KCSE, public and private were targeted. The principals were chosen because they are in charge of the human resources in the schools.

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

It is expected that the findings of the study would contribute to the general body of knowledge in theory and practice. The following could benefit from the study; The National Government could put emphasis on best practices that promote academic performance in secondary schools in Kenya. The schools that do not perform well could

put in place such practices to enable them improve academic performance of their students.

Schools' Boards of Management could be enlightened on the importance of integrating HRM practices in the institutions to improve in academic performance. The managers, and principals of respective schools could draw from the study findings to make better decisions regarding the practices in the study, and the moderating effect of school infrastructure and their influence on academic performance. The various sponsors and donors could look into how to assist the BOM with the various areas of infrastructure. This will help in improving performance in secondary schools.

The findings of study will be of use to other Human Resource Management students and academicians as part of literature for future research.

### **1.7 Limitations of the Study**

Several challenges were faced while carrying out the study. First, due to the ongoing global health crisis (COVID-19), the data collection exercise was delayed thus affecting the timely completion of the study. Also, with the crisis, accessing some of the respondents was a challenging task. In handling this challenge, the research work plan was adjusted and several trainees recruited to assist in distributing the questionnaires in order to hasten the exercise. Health protocols were observed during data collection.

Another challenge faced pertains to the collection of data on from the institutions. A small number of the school heads were not willing to provide the required records and this posed a challenge in showing the performance trends of these schools over the years.

Hence, the study relied on the feedback provided by the other school heads and the county education office.

Machakos County is diverse geographically and it was a challenge accessing some of the schools. Telephone calls and research assistants helped in reaching out to the targeted schools' principals.

### **1.8 Assumptions of the Study**

The study was based on the assumptions that there were specific HRMP that influenced KCSE results in secondary schools in Machakos County, Kenya. It was assumed the respondents would provide honest, reliable and accurate responses as required. The study further assumed that the theoretical foundation of the study was sound and an accurate reflection of the phenomena being studied.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter covers theoretical literature review, empirical literature review, research gaps and conceptual framework of the study.

#### **2.2 Theoretical Review**

The following are the theories that anchored this study; Resource- Based View Theory, Universalistic Theory and Human Capital Theory. The relevance of the theories to the study variables is also discussed.

##### **2.2.1 Resource Based View Theory**

Barney's (2007) Resource-Based View (RBV) theory observes that a company must have valuable, rare, inimitable and non-substitutable resources to have a sustainable competitive advantage, and that these resources include everything internal to the firm. The author listed all of the assets, capabilities, organizational processes, firm attributes, information and knowledge as resources. Wright and McMahan (1992) further explain what people, as resources, must have for the company to be competitive. They must give value to the organization's production processes; they must have rare skills to promote significant performance. The human capital investment must not be easily imitated. A company's human resources must not be substituted or replaced by technological

alternatives. The high levels of automation in many industries and the continuing shift towards a service economy have made substitution less likely (Armstrong, 2010).

The theory argues that good Human Resource Management practices lead to good functioning of internal organization which eventually becomes the source of creativity, innovation and successful performance (Ahteela & Vanhala, 2011). Thus, the practices should be considered as a strategic issue within the learning institution. The policies, systems and practices influencing attitude, behavior and performance of employees compose the HRM practices (Noe, Hollenbeck, Gerhart & Wright, 2007). Gujarati and Porter (2009) observe that the Resource-Based View Theory has been an imperative step in Human Resource Management since it has given a new point of view to explain a firm's success. According to the focus on resources, an institution's success is due to joint resources and capabilities which an organization owns and makes it different from its competitors.

Among such resources and capabilities are the human resources and the crucial attributes of knowledge, skill, and talent. These resources and capabilities may constitute a source of competitive advantage (Hesketh & Fleetwood, 2008). From this point of view, the HRM practices in an organization are geared towards strengthening those significant capabilities and knowledge. Secondary schools are not exceptional and this calls for resource mobilization towards improved performance.

Wright and McMahan (1992) show the relation between strategy, HRM practices and human resource capital pool. They observe that if resources are strategic for the firm, it implies that they are scarce, valuable, specific or difficult to transfer. This is possible if

the organization implements HRM practices such as recruitment of essential employees, compensating them conveniently, training them or to develop new capabilities and motivate them through incentives. Consequently, the HRM practices are likely to affect the performance.

The Resource-Based View of the organization gives a new perspective to Human Resource Management. The organization creates and implements new measures in areas such as recruitment and selection, training and career development and compensation among others (Grant, 2002). An organization will train its employees in order to increase productivity for this reason, an organization will only train employees in those abilities and skills that are crucial to making tasks better and faster (Grant, 2002). As far as compensation is concerned, the focus is compensating individual performance and the value created by an employee. The Resource-Based Theory has thus made it possible to mark the importance of human resources for an enterprise because it is able to create competitive advantages.

Capabilities are another key concept within Resource-Based View Theory. Resources refer to what an organization owns, capabilities refer to what the organization can do (Mullins, 2007). Capabilities tend to arise over time as a firm takes actions that build on its strategic resources. They are important in part because they are about how organizations capture the potential value that resources offer. Capabilities are needed to bundle, to manage, and otherwise to exploit resources in a manner that provides maximum productivity.

Overall, the Resource-Based View Theory provides a useful basis for understanding the value that HRM adds to the performance of the organization. Human Resource Management practices have been widely researched and accepted as playing an instrumental role in creating and sustaining organizational performance (Hesketh & Fleetwood, 2008). It is argued that the Resource-Based View of the firm on Human Resource Management generates sustainable competitive advantage through recruiting, developing and retaining exceptional human talent (Steinkellner, Czerny& Lueger, 2010).

The Resource-Based View Theory is relevant to this study because the theory emphasized on the importance of developing and enhancing the resources that are distinctive for a competitive advantage. It relates to this study in that teachers who form part of human resources should be properly recruited and selected, trained and developed, properly remunerated and work in a healthy and safe place with the proper physical infrastructure for better performance. If this is done the academic performance is expected to improve.

### **2.2.2 Universalistic Theory**

The universalistic theory was postulated by Dewar and Werbel (1979) who sought for best practices in Human Resource Management. Several researchers have contributed to the universalistic theory such as Beh and Loo (2013), Hamid (2013) and Hughes (2002). The researchers admit that there is a linear relationship in organizational performance if certain HRM practices are implemented. They argue that some HRM practices are superior to others and therefore all organizations should assume these best practices. Hamid (2013) for example refers to the Universalistic theory as the “best” practice model



which is based on the assumption that there is a set of superior/best HRM practices, and that adopting them will definitely lead to superior organizational performance. If certain HRM practices are implemented in the organization, they can guarantee increases in performance.

The 'best' HRM practices are seen through improved employee attitudes and behaviors, lower levels of absenteeism and turnover, higher levels of skills and therefore, higher productivity, enhanced quality and efficiency and increased profitability ( Marchington &Wilkinson, 2008). Therefore, all organizations will benefit and experience improved organizational performance if they will be able to identify, get committed to and implement a set of best HRM practices.

The universalistic perspective maintains that firms will notice performance gains by identifying and implementing best practice irrespective of the product market situation, industry or location of the firm. It is up to the firm to decide what may be relevant in general terms and what can be adopted to fit its particular strategic and operational requirements. There are certain "best" HRM practices that contribute to increased organizational performance regardless of the strategic goals of the organization (Hughes, 2002). These are recruitment and selection, socialization, job design, training, communication, participation, career development, performance management, employee reward and job security (Maina, 2017). The universalistic approach to HRM research assumes that HRM practices contribute to worker motivation (and thereby increased productivity) as well as increased efficiency (Ichniowski, Kochan, Levine, Olson& Strauss, 2000).

Boxal, Purcell and Wright (2007) observe that the universal Human Resource Management practices among them, recruitment, training, reward management, job rotation and staff welfare and firm performance are related and supported by arguments from universalistic theory which suggests that people possess skills, knowledge and abilities through effective Human Resource Management practices that provide economic value to firms. Therefore, increased productivity derived from human capital depends on the effectiveness of HRM practices in organizations.

Wayne, Musisca and Fleeson (2004) suggest that HRM practices that signal the organization's intentions to invest in employees (such as developmental experiences and training) produced higher levels of (influence) organizational commitment. In recent times, HRM has assumed new prominence because of continuing concerns about global competition, the internalization of technology and the productivity of labour through effective HRM practices (Bratton & Gold, 2017). Marques (2015) notes that the strength of universalism is its consistency and with the moral approach, there is no question about the decision to be made what is right for one should be right for all. Managers need to change the way they manage the employment relationship in order to allow the most effective utilization of human resources.

The universalistic approach does not consider that what works well in one organization will work well in another because it may not fit its strategy, technology or working practices. The theory is relevant to this study because each secondary school should have a set of best HRM practices; recruitment of teaching staff, training and development, compensation practices and safety which are the independent variables for this study. The

best practices if well managed will influence academic performance, which is the dependent variable.

### **2.2.3 Human Capital Theory**

The Human Capital Theory was developed by Samuel and Gary (1930). It is defined as the knowledge, skills, assets, and experiences that an individual has which add value to a company (mixture of human and skill). Human capital is a way to determine economic performance in a workforce and this idea of human capital itself gave rise to human capital theory (Armstrong, 2010). However, not every employee has the same value; it depends on their knowledge, skills, and assets.

The human capital theory acknowledges the values that people can contribute to an organization and regards people as assets stressing that investment by organizations in people will generate worthwhile returns (Tan, 2014). Torrington (2008) explains that human capital theory signifies the combined intelligence and experience of staff. He specifically points out that effective HRM practices are an organization's source of competitive edge. The theory has, cross-cutting significance in HRM practices such as recruitment and selection, training and development, human resource planning among others that are meant to help organizations achieve their goals.

Armstrong (2010) observes that individuals generate, retain and use knowledge and skills to create intellectual capital. Their knowledge is enhanced by the interactions between themselves and this generates the additional knowledge possessed by an organization. Further, individuals generate, retain and use knowledge and skills to create intellectual capital. Throughout the investment of human capital, an individual acquires knowledge

and skills that can easily be transferred to certain goods and services (Whitaker & Wilson, 2007).

Shrader and Siegel (2007) note that without investments in human capital we would be left with only hard physical labour and high levels of poverty. The human capital theory has the ability to use the knowledge skill and experience to achieve results and potential for growth. The theory does not consider that human skills that works well in one organization may not work in another. However it is relevant to the study because it is indeed the knowledge, skills and abilities of individuals that create value. This is why the focus of any organization has to be on the means of hiring, developing and rewarding. The theory contributes to the study because schools need to ensure that they have the right human resources right from recruitment if they have to produce quality results.

Each organization has to focus on the means of recruitment of the right people, training and development of the people for better results. Therefore, it informs two independent variables and suggests that when the right people with proper skills are put in place productivity is expected. When the focus is on the right means of recruiting and training the people then secondary schools can expect to produce quality grades.

## **2.3 Theoretical Review of Human Resource Management Practices and Performance**

### **2.3.1 Organizational Performance**

Organizational performance is usually captured by metrics such as sales growth or profitability in the for-profit sector, or by outcomes such as increased productivity or lower closure rates (Bloom, Lemos, Sadun & Van Reenen, 2017). Organizational

performance is generally indicated by effectiveness (whether an organization can achieve its objectives), efficiency (whether an organization uses resources properly), satisfaction of employees and customers, innovation, quality of products or services, and ability to maintain a unique human pool (Tiwari & Saxena, 2012).

Hossain and Musembi (2012) observe that the overall organizational performance depends on the extent to which human resource is utilized. Organizational performance is an indicator which measures how well an enterprise achieves its objectives. Organizational performance is concerned with among others, product or service quality, product or service innovation, employee attraction, employee retention, customer satisfaction, management/employee relation and employee relation (George et al, 2019).

Berberoglu (2018) observes that the effective functioning of an organization goes along way where employees perform their jobs at a satisfactory level of proficiency and also the organization provide opportunities for the continued development and training of employees not only on their jobs, but as well develop them for other jobs for which they might later be considered when all the practices are managed well. In companies where there are effective Human Resource Management practices, employees and customers tend to be more satisfied, and the companies tend to be more innovative, have greater productivity, and develop a more favorable reputation in the community (Ray &Ray, 2011).

Performance of organizations depends on the knowledge and ability of its employees toward understanding the dynamism in the market (Ogbu, 2017).The effective functioning of any organization is best where employees perform their jobs at a

satisfactory level of proficiency and also the organization provide opportunities for the continued development and training of employees not only on their jobs, but as well develop them for other jobs for which they might later be considered.

Academic performance refers to a degree or level of success or that of competency attained in some specific area related to academic work. Higher achievement opens a number of doors for the students and they can go for better lines and better jobs in all fields thereby bringing success (Mohammad & Younes, 2017). Performance in examinations can be seen as evidence that learning has taken place. Presenting evidence of learning should be an important landmark in the journey towards lifelong learning (Newman, 2015).

Examinations are generally accepted as valid measures of achievement. Student's success is generally judged by examination performance while the best criterion of performance is the sum of the student's academic performance in all the subjects taken. Academic performance of schools is linked to different circumstances and factors. In the United States of America, the factors that have been reviewed include: students' role performance (SRP) which include sex, race, school effort, extra-curricular activities, deviance and disabilities which are all important influences and have been shown to affect test scores (Kevin, 2012). Further, the type of school a child attends influences educational outcomes (Kumwenda, Cleland & Walker, 2018). The school context tends to affect the strength of the relationship between Social Economic Status (SES) and educational outcomes.

### **2.3.2 Staff Recruitment and Selection and performance**

According to Al Khajeh (2018), the objective of HRM resourcing strategies is to obtain the right basic material in the form of workforce with the appropriate qualities, skills, knowledge and potential for future training. Performance is based on the fact that failure to recruit and select the proper employees would result in low organizational performance. Johnson, Scholes and Whittington (2012) observe that recruitment is a key method of improving the performance of an organization. The right people should be placed in positions that fit them best.

The process of recruiting and selecting may come in four stages: defining recruitment, planning recruitment campaign, attracting candidates and selecting them. Effective recruitment and selection practices lead to positive increase in organizational performance, labour productivity, product quality, organizational innovations, and customer satisfaction. Failure to properly allocate the right employees would result in low organizational performance. Djabatay (2012) and Ekwoaba, Ikeije and Ufoma (2015) argue that proper staffing is critical for building and sustaining a competitive advantage and that recruitment and selection are essential in organizations because individuals need to be attracted on a timely basis in sufficient numbers and with appropriate qualifications. According to Biama (2014), the objective of HRM resourcing strategies is to obtain the right basic material in the form of workforce with the appropriate qualities, skills, knowledge and potential for future training.

The recruitment and selection process should be effective enough to attract the right pool of personnel (Uysal & Koca, 2019). Selection is the second stage of the employment

process. Selection is therefore the process of identifying the most appropriate and suitable person for a particular job. Through selection, the performance for the job is predicted. According York et al. (2015), the purpose of selection is to identify applicants to fill vacant vacancies in an organization. Here applicants are supposed to meet specific requirements related to competencies of the job and applicants must fulfill this performance requirement before they would be selected.

Organizations expect to find suitable candidates who satisfy the requirements for employment. Komba et al.(2013) observe that recruitment and selection is the process of obtaining applicants with the required experience, knowledge, skills, qualifications and attitude for a job vacancy. Molokomphale (2015), notes that candidates can be selected using different methods in order to assess their suitability and merit for a certain role. Failure to recruit and select the proper employees would result in low organizational performance. Johnson et al. (2012) observe that recruitment is a key method of improving the performance of an organization. The right people should be placed in positions that fit them best (Hitt, Ireland & Hoskin, 2010). Under normal circumstances, an increase in the pool of applicants will improve an employer's opportunities in selecting exactly the right people for job vacancies.

Failure to properly allocate the right employees would result in low organizational performance. Djabatay (2012) and Ekwoaba et al. (2015) argue that proper staffing is critical for building and sustaining a competitive advantage and that recruitment and selection are essential in organizations because individuals need to be attracted on a timely basis in sufficient numbers and with appropriate qualifications.



### **2.3.3 Staff Training and Development and performance**

According to Komba et al. (2013), training is the application of the formal process to impart knowledge and skills that are pivotal to the realization of high output levels. It is the process of increasing knowledge and skills of employees required for the efficient performance of a particular job. Training is the continuous assistance or coaching given to an employee in order to make them have current knowledge of the job content, scope and relationship within the organization (Ezeani & Oladele, 2013). Development entails the facilitation of learning that strives to broaden the employee's expertise and knowledge for future responsibilities and assignments.

Training and career development are very vital in any company or organization that aims at performance and progression. This includes decision making, thinking creatively and managing people. Training and development is important because it helps in addressing employee weaknesses, brings improvement in worker performance, creates consistency in duty performance, ensures worker satisfaction, increased productivity and improved quality of service and products, reduces cost and time used in supervision. Training can also be used to prepare employees for increased responsibilities in their current human resource plan. Thus, it is the series of activities embarked upon by organization that leads to knowledge or skills acquisition for growing purposes.

Training contributes to the well-being and performance of human capital, organization, as well as the society at large. Training leads to improvement in technical skills of employees (Manju & Suresh, 2011).

Training programs have very specific and quantifiable goals, like operating a particular piece of machinery, understanding a specific process, or performing certain procedures with great precision (Odukoya et al, 2018). All forms of training are as a means of promoting employee growth and acquiring a highly skilled work force. Organizations choose from a variety of training methods which include, orientation, lectures, case study, role playing, computer based training, team building exercises among others. Classroom training, lectures, computer-based learning and e-learning are all examples of formal training. Training can be done on –the- job or off- the -job (Tamrat, 2017).

Oredein (2016) observed that training provides specialized techniques and skills to employee and also helps to rectify deficiencies in employee performance. The availability for all employees having access to training and development programs is critical in facilitating organizational growth, particularly with performance and technological improvements. Development refers to activities leading to the acquisition of new knowledge or skills for purposes of growing. Organizations provide employees with development programs in order to enhance their capabilities (Mushtaq & Khan, 2012).

Organizations need to invest in continuous employee development in order to maintain employees as well as the organization success (Jehanzeb & Bashir, 2013). Rahman and Nas (2013) argue that the purpose of employee development programs is to improve employee capabilities which lead to increased productivity for them and their team thus, sustaining a competitive position for their organizations. Developmental programs, on the other hand, concentrate on broader skills that are applicable to a wider variety of situations, such as decision making, leadership skills, and goal setting. The objectives of

training should be clearly outlined, specifying what behaviors or skills will be affected and how they relate to the strategic mission of a company.

#### **2.3.4 Staff Compensation and Performance**

Compensation is an important part of Human Resources Management practices as it affects the performance of employees and establishes the degree of relationship between the employer and employee. Arif (2017) notes that total compensation is a combination of financial and non-financial rewards given to employees. Employees anticipate adequate compensation in order to satisfy their needs after helping the organization achieve its goals (Adeniji & Osibanjo, 2012). In the age of global competition, it is very essential to identify and retain the efficient, competent and knowledgeable employees in organizations by developing and maintaining an effective compensation program for getting the best job performance from the employee (Akter & Moazzam, 2016). Compensation is a vital part of human resource management, which helps in encouraging the employees and improving organizational effectiveness.

Compensation packages with good pay and advantages can help attract and retain the best employees. A quick survey of employees about compensation is likely to expose an expectation that wages are fair and cover basic living expenses, keep up with inflation, leave some money for savings (perhaps for retirement) and leisure and increment over time. Compensation includes payments like bonuses, profit sharing, overtime pay recognition rewards. Wheelen and Hunger (2013) argue that compensation is concerned with the formulation and implementation of strategies and policies that aim to reward people fairly, equitable and consistently in accordance with their value to the

organization. Therefore, compensation includes, but not limited to health care benefits, educational incentives, part time off, vacation time, flexible schedules, retirement, special programs, work environment and salary.

Compensation policies addresses the broad issues that serve to guide the organization on how to remain competitive in the market, practice equity and transparency and pay structure to be adopted in an organization (Saeed et al., 2019).They help in defining employment relationships, contractual obligations and the implied psychological contract between the employer and the employee. A compensation policy promotes the relationship by having committed employees who have trust with the organization, are willing to perform their duties and have readiness to assist other employees. Compensation is an important part of Human Resources Management as it affects the performance of employees and establishes the degree of relationship between the employer and employee.

Compensation can also include monetary and non-monetary perks like a company-paid car, company-paid housing and stock opportunities. Tang et al. (2011) notes that total compensation is a combination of financial and non-financial rewards given to employees. Employees anticipate adequate compensation in order to satisfy their needs after helping the organization achieve its goals (Adeniji & Osibanjo, 2012). Wheelen and Hunger (2013) recommend that the government should invest in HRM practices that motivate teachers so as to enhance academic performance of such teachers in national examinations.

### **2.3.5 Staff Safety and Performance**

According to Wachira (2013), occupation safety and health is concerned with protecting the safety, health and welfare of people engaged in work or employment. The enjoyment of these standards at the highest level is a basic human right that should be accessible by each and every worker. Regardless of their nature of work, workers should be able to carry out their responsibilities in a safe and secure working environment which is also free from hazards. These rights are set out in legislation to ensure that employers are clear about their obligations and the consequences for neglecting their workers.

McDonald (2017) observes that better working conditions are a statutory requirement by law contained in the Constitution of Kenya. Top performers want to work in a healthy and safe environment free from accidents, violence, harassment, layoffs and discrimination. Organizational health and safety refer to an organization's ability to achieve its goals based on work environment that seeks to improve employee well-being (Namusonge et al., 2015). Improving organizational performance involves applying a systems thinking about organization, process and role levels and supporting employees' well-being, addressing both employee satisfaction and employee health (physical, mental, and social health).

Bryson, Stokes and Wilkinson (2018) observe that better working conditions are a statutory requirement contained in the Constitution of Kenya. Top performers want to work in a healthy and safe environment free from accidents, violence, harassment, layoffs and discrimination. Organizational health and safety refer to an organization's ability to achieve its goals based on work environment that seeks to improve employee well-being

(Tanget al, 2011). Improving organizational performance involves applying a systems thinking about organization, process and role levels and supporting employees' well-being, addressing both employee satisfaction and employee health (physical, mental, and social health).

Biana (2014), notes that organizational safety and health is a multidisciplinary concept that concentrates on the promotion of safety, health, and welfare of people engaged in work or employment. Pahuja and Dalal (2012) state that work related illness and injuries have been a feature of employment since the beginning of industrialization. According to Faizuddin (2018), safety programs deal with the prevention of accidents and with minimizing the resulting loss and damage to persons and property. Employee's health both physical and mental could be affected by diseases such as cancer, heart problems, ulcers, job stress, and strain as well as accidents.

There is a negative impact on the organizational performance when the health and safety practices in the organization are lacking. The performance of the organization suffers because of interruption of production immediately after an accident, lowering of morale of the employees. Employee's time is needed and spent on investigating and preparing reports on accident, recruiting and training costs for replacement of employees, damage to equipment and materials resulting into production loss, reduction in product quality following accidents, and reduced productivity of injured employees since they are to be on light duty (Jeremy, McCord & Zohar, 2016). With these negative consequences, an organization loses its ability to accomplish set goals and its competitive advantage in the marketplace gets diminished.

Top performers want to work in environments that they can relate to, get along with and be challenged by their coworkers. Organizations that support a safe, secure and healthy workplace will motivate their employees and this helps to attain set goals and objectives in the organization (Ramazan, 2016). Current businesses are moving to modern concepts of business leadership where employees are valued and allowed to participate in management and social responsibility.

#### **2.4 School Infrastructure and Performance**

Parrett and Budge (2020) state that a good learning environment promotes learning. Students need to feel safe and supported to learn, in the absence of these conditions the human mind reverts to focusing on survival. The educational process occurs in a physical, social, cultural and psychological environment and it is important to provide an adequate environment for fruitful learning (Ray & Ray, 2011). A favorable school environment is a stimulus for learning experiences, this is because children spend a lot of time in school whose environment is capable of influencing performance through teaching techniques and relationships (World Bank, 2018).

A supportive school environment is important in promoting academic success as it influences students' learning and growth which includes a significant aspect of their development-socially, emotionally and ethically. A school environment that is supportive and caring promotes learners to be more motivated and engage in learning (Opiyo et al., 2018). The indicators of quality of education as highlighted by Hassan (2016), are: libraries; instructional time; homework; textbooks; teacher subject knowledge; teacher experience; laboratories; dormitories; and class size.

The Republic of Kenya (2012) notes that learning can occur anywhere, but the positive learning outcomes generally sought by educational systems happen in quality learning environments. Learning environments are made up of quality educational facilities. Salama, Al Shobaki et al (2017) observe a very strong positive significant relationship between instructional resources and academic performance. Schools endowed with more resources perform better than schools that are less endowed.

Mutahaba (2011) observes that infrastructure for learning as ‘a set of resources and arrangements – social, institutional, technical – that are designed to and/or assigned to support a learning practice’. Formal learning takes place in a classroom but learners need opportunities to conduct their personal studies or research in the facilities available in a school. They require extra time and school infrastructure therefore, it is very important in ensuring academic success. An adequate physical facility within the school strengthens and encourages the academic performance (Sembe & Ayuo, 2017).

Good infrastructure system in secondary schools seeks to increase school attendance, enhance attendance, staff motivation and improves academic performance of the students. Chiedozie et al.(2018) argue that good academic performance is contributed to by the availability of school buildings and other appropriate plans thus, resulting to effective teaching and learning activities. High educational performance can as well be achieved through having a pleasant atmosphere and other physical facilities such as washrooms and playgrounds.

A study by Keinan and Karugu (2016) on textbooks and school library provision in secondary education in Sub-Sahara Africa found that textbooks and libraries were not



only inadequate but unevenly distributed among rural and urban schools. This affects academic achievements. Inadequacy of resources can seriously compromise effective teaching and therefore, lack of quality performance in national examinations. The report highlights indicators of quality education as: libraries, instructional time, homework, textbooks, teacher subject knowledge, teacher knowledge, teacher experience, laboratories, class size and salaries (Parrett & Budge, 2020).

Students from marginalized and deprived backgrounds and socio-economically backward sections of the society may not even afford books and required reference materials. Such facilities in a school give them a chance to perform better in examinations (Maina, 2017). The Government of Kenya (2012) notes that learning can occur anywhere, but the positive learning outcomes generally sought by educational systems happen in quality learning environments.

## **2.5 Empirical Literature**

This section presents a review of relevant studies that have previously been done on HRM practices and performance.

### **2.5.1 Organizational Performance**

Odukoya et al. (2018) examined factors that positively influence students' academic performance in public and private secondary schools in Rivers State, Nigeria. The study was descriptive in design. The instrument used for the collection of data was a "Students' Academic Performance Questionnaire" (SAPQ). The study sample size was 489 public secondary students and 213 private secondary students. The results of the study revealed

that students in public secondary schools were better influenced by the quality of teaching manpower than their private secondary schools' counterparts. The study recommended that among others, the government needed to pay adequate priority attention to educational system in order to sustain minimum educational standards.

Kyei and Nemaorani (2014) in South Africa carried out a survey in four high schools in the Vhembe district to establish some factors that affect the performance of Grade Ten students in the Limpopo province. The study used mixed sampling techniques comprising simple random sampling and purposive sampling to get the schools and grade ten students. One hundred and seventy six (176) students were also interviewed using a structured questionnaire. Statistical methods using multiple regression and analysis of variance were used to find out the factors influencing performance. The study concluded that parents' socioeconomic status, student's age and sex, location of the school, the type of school (private or public), the average number of students in a class and competence in English language were factors affecting students' academic performance. The study did not consider human resource practices which are addressed in the current study.

Olufemi et al.(2018) studied the factors affecting students' academic performance in colleges of education in South west Nigeria. Four hundred and eight (408) students from six colleges of education were randomly selected for the study. Data collected were analysed with descriptive and inferential statistics. The study concluded that students' factors, parental background, school factors, and teachers' factors have serious influence on students' academic performance. The study recommends that school facilities should be adequately provided; Colleges of Education should be given appropriate attention and

funding while government should provide alternative power supply by purchasing generator plant for Colleges of Education.

In Ghana, Kormla (2012) sought to identify leadership and management practices, skills and attitudes employed by principals of disadvantaged rural schools in the Saboba locality that create an environment that fosters high standards of student achievement. The study identified seven themes of effective school leadership. These are shared school vision, the principal's positive personal attributes, successful instructional and managerial leadership, thriving collegial leadership, productive school and community partnerships for recruiting resources for the school, innovative physical and human resourcing and emerging positive values. Results showed that these need to be sufficiently present and also inter-connected to enhance school effectiveness in disadvantaged rural schools. The study also identified implications for leadership research and educational practice. The study dealt with leadership and did not address infrastructure which is done in the current study.

Komba et al. (2013) in a study done in Tanzania examined factors affecting academic performance of ward secondary schools in Moshi district and Moshi municipality. He noted that limited number of teachers per subject and number of students, lack of conducive teaching and learning environment, and shortage of teaching and learning materials as some of the challenges that affect academic performance. Other factors included employment of unqualified teachers, lack of reliable libraries and laboratories, weak communication among teachers, parents, students and poor classroom attendance by teachers. Kivunule (2015) observes that private schools perform better than public schools and those teachers are recruited competitively in private schools and are paid

well. Further, Private schools have positive effects on labour market earnings. The study did not consider public schools; this is done in the current study.

Karue and Amukowa (2013) investigated the factors that influence poor performance in KCSE in day secondary schools, Embu district. The study was interested in teacher qualifications, qualifications of head teachers, entry behavior of learners and how Parents Teachers Associations contribute to KCSE performance. The study found unfavorable home environments, and family backgrounds, work negatively for students as they pursue their reading, lack of reading materials, chores at home, poor lighting, bad company, lack of proper accommodation, chronic absenteeism emanating from lack of school fees, admission of weak students at form one entry, inadequate instructional materials and physical facilities as some of the factors that contribute to low academic performance of students in secondary schools. The current study addresses all categories of schools and human resource practices missing in the above study.

### **2.5.2 Staff Recruitment and Selection and Performance**

Gamage (2014) examined HRM practices in Small and Medium Enterprises (SMES) in Japan. This was mainly the relationship between recruiting and selection practices and business performances. The study was descriptive in design. A structured questionnaire was developed and sent to 436 manufacturing SMEs and 144 firms responded to the questionnaire resulting in 32 percent response rate. The study showed a strong positive relationship between recruitment and business practices and business performance of manufacturing SMEs in Japan. The study recommends further research in other organizations.

Ayanda and Sani (2011) on a study on evaluation of Strategic Human Resource Management practices in Nigerian Universities: ownership type and age. The study was based on a sample of 120 respondents and adopted the systematic random sampling technique. The study used questionnaires and structured interviews. The study adopted the chi-square analytical technique. The study recommends that recruitment should be based on merit and not political consideration and argues that organizations exist to achieve goals, therefore the human resource is seen as one of the most crucial factors, without which the goals are as good as dead. A capable workforce is required, and such a workforce can only be obtained through proper recruitment and selection procedures. Proper staffing helps organizations to build and sustain competitive advantage (Djabatey, 2012).

Ezeali and Esiagu (2015) in a study on the impact of recruitment and selection criteria on organizational performance on Greater Accra Region of Ghana investigated the impact of recruitment and selection criteria on performance in six main branches. The study adopted survey research design and structured questionnaires to collect data from 130 respondents through a random selection. The study reveals that selection and recruitment have the highest significant effect on organization performance. The more the objective of recruitment and selection of the work force the better the performance.

Ofori and Aryeetey (2011) studied selection practices in small and medium enterprises of Ghana. The study used a questionnaire survey for investigation. 120 respondents from company top management were sampled. Results of study concludes that recruiting and selecting the wrong applicants who are not able to do their tasks, leads to an enormous negative cost which organizations cannot bear. Consequently, the general point of

recruitment and selection inside the organization is to get the number and nature of representatives that are required to fulfill the vital targets of the organization at negligible cost and maximum performance.

Ntiamoah, Abrokwah, Agyei, Opoku and Siaw (2014) did an investigation into recruitment and selection practices and organizational performance evidence from Ghana. The objective of the study was to evaluate the impact of recruitment and selection tool on performance of the Ghana Revenue Authority in the Greater Accra region. The study was a case design. Data was collected by structured questionnaire. A total 160 respondents were chosen from the district offices of the Ghana Revenue Authority in Greater Accra region of Ghana by convenience sampling technique. Data were analyzed using correlation and regression. Results of the study showed that there is high positive correlation between the constructs of performance-based rewards and productivity. The findings of the study showed significantly that recruitment and selection process by firms demonstrates its demand from its environs and also recruitment and selection practices are directly related to organizational performance.

Priya and Sundaram (2016) examined the relationship among the HRM practices, and Organizational Performance from four leading hospitals in Tiruchirappalli district. The study was empirical in nature. A sample of 250 nurses was drawn from the population of 600 nurses using a structured questionnaire. The results of the Partial Least Square Path Modelling (PLS-PM) show that recruitment and selection, training and development are significant predictors of organizational performance. Performance improvement is not only a result of well-functioning system but also depends on effective human resource strategies that succeed in recruiting and maintaining a committed and motivated

workforce. The study concludes that when there are healthy HRM practices in Hospitals, it will result in the development of individual productivity and organizational performance in hospitals.

Ekwoaba et al. (2015) did a study on the impact of recruitment and selection criteria in Fidelity bank, Lagos. The study which was survey research design used structured questionnaire to collect data. The research population covered the six (6) main business divisions of Fidelity Bank Plc in Lagos State. Random sampling technique was used to select every element of the population in the business divisions. A total of sixteen (16) full staff and six (6) contract staff were selected using correspondent serial number selected from the table of random numbers. The study notes that recruitment and selection has a significant effect on organization performance. The study concludes that recruitment and selection criteria have significant effect on organization's performance.

Omisore and Okofu (2018) studied the relationship between recruitment and selection practices organizations in Nigeria public . They attempted to find out if recruitment and selection of staff in any organization be it public or private sector is of paramount importance to the organization. Data was collected from respondents using questionnaire designed for this purpose. Descriptive statistics was used to analyze the findings. The study reveals that though there are stipulated periods for recruitment and selection into the public service, these are often sidelined. The study recommends the most qualified, technically sound, disciplined and committed human resource should be recruited to help government achieve the objectives of governance.

Oaya et al. (2017) did a study to determine the recruitment and selection strategy that increase workers output in 3 multinational firms, Abuja and Lagos branches in Nigeria. The population of the study was the employees of the branches. The study used descriptive survey design. Inferential statistics T-test was done to find a level of linkage between recruitment and selection strategy and employee performance. Findings of study observes there is link between recruitment and selection strategy in the firms, companies that affect organizational efficiency and output..

Selase (2018) studied the impact of recruitment and selection criteria on organizational performance in GN Bank in Ghana. The study adopted survey research design and structured questionnaire was used to collect data. The research population covered six (6) main business branches of GN Bank in Greater Accra Region. The respondents covered top, middle and lower positions workers in marketing and operation sections of the bank. He observes that the more objective the recruitment and selection criteria, the better the organization's performance. Random sampling technique was used to select every element of the population in the business branches. Data was analyzed using descriptive and inferential statistics. The study concludes that recruitment and selection in any organization is a genuine business as the achievement of any organization or productivity of its workforce depends on the process.

Kepha, Mukulu and Waititu (2015) sought to establish the influence of recruitment and selection on the performance of employees in research institutes in Kenya. The overall objective of the study was to determine how recruitment and selection influence employee performance in research institutes in Kenya. The study adopted descriptive and correlation research designs. The study population was drawn from all government



owned research institutes formed under the Science & Technology Act. The target population was drawn from the research institutes that were within Nairobi County and its environs. Stratified sampling technique was employed to sample 250 employees. The study used questionnaires to collect data while Cronbach's alpha was used to test the validity and reliability of the instruments. The study concludes that recruitment and selection have been singled out as a major human resource management practices that can have an influence on the level of employee performance in organizations.

Wambua and Genga (2018) studied recruitment and selection process to determine its effect on the performance of teachers in Machakos County. The study was descriptive in design while stratified random sampling was used to draw samples from a population of eight sub-county Teacher service commission (TSC) directors and 347 boards of management secretaries (principals) and 3,019 teachers. They used 346 participants. Questionnaires were used for the teachers and interview for the principals and teacher managers. The findings indicate a relationship between teacher's performance and recruitment and selection. The study further recommends that the TSC should adhere to proper recruitment to motivate teachers.

### **2.5.3 Training and Development Practices and Performance**

Yap, Holmes, Hannan and Cukier (2011) conducted a study on relationship between diversity training, organizational commitment and career satisfaction and performance from 11,000 managers in Canada. The study was descriptive in design. Data was collected from 11,000 managers, professionals, and executives working incorporate organizations in Canada. The study used a regression analysis of responses. The survey

included questions about employees' perceptions of their work experiences and outcomes and their organizations' diversity practices. Comparisons of means as well as multivariate regression analyses were undertaken. The study findings show that employees who perceived development training to be effective were significantly more committed to their organizations and more satisfied with their careers than employees who perceived development training to be ineffective or non-existent.

Tahir, Yousafzai, Jan and Hashim (2014) examined impact of training and development on employees in a case study of United Bank Limited in Pakistan. The goal was to see whether Training and Development has an impact on employees' performance and productivity. The study was quantitative in nature. Eight United Banks limited branches were selected for the study. Data was collected through use of questionnaires. The data was checked through statistical software to find the impact of training and development on employees' performance and productivity. The result showed that there was significant relationship between training and performance of employees. Further, training and development is a learning practice that can assist the workers to grow their ability and knowledge for improved performance. It is a foundation of self-possession of which employees perform under pressure and labor with minimum direction.

Raza (2014) did a study on the impact of training and development on organizational performance in oil and gas sector of Pakistan. The objective of the study was to investigate the relationship between the training and development strategies and its impact on organizational performance. The study was descriptive in nature. Primary data was collected by use of questionnaires from employees of 13 companies. Regression analysis was done on the employees of oil and gas sector of Pakistan. The findings help

the management to concentrate towards the training and development as to improve the required skills of the employees which are important for the organizational performance.

Okechukwu (2017) did a study on influence of training and development, employee performance on job satisfaction among the staff of school of technology management and logistics, University Utara Malaysia. The purpose of the research was to identify the influence of training and development programme and employee performance on the job among university academic and administrative staff in the school of technology management and logistics (STML). Data was collected from 81 staff respondents. The study employed quantitative data analysis. The study found that training and development and employee performance positively influence on job satisfaction, and is significantly related to employee performance. The study affirms that there is a significant relationship between training and development and employee performance and job satisfaction and success of an organization. Organizations that wish to perform must invest in training.

Aigbepue and Mammud (2012) studied training and development and organizational performance in Oredo local government area of Edo State, Nigeria. The study was a survey and descriptive in nature involving 100 employees of selected business organizations. Results from the study show that performance of an organization depends largely on manpower training and development. The study recommends that organizations should have regular and well-thought out training programs for their employees and that employers should be involved looking for experts in the design and implementation of manpower training and development programs in the organization.

Gambo (2015) studied how training and development affects workers' output, the Federal University Dutsinma, Nigeria. The aim was to find out if training and development have an impact on workers' productivity via the Tertiary Education Trust Fund (TETF) on Academic Staff Training and Development 2010 Sponsorship. The study used retrospective design and data was collected from a sample of 10 universities. Results reveal that training and development programs improve employees' skills and performance at work place, enhance their technical knowhow to withstand the challenges of contemporary times, thus, an effective tool for sustaining and enhancing workers' productivity in the academia. The findings reveal that training and development is an important tool for academic development of an organization.

Ogbu (2017) looked at the impact of employee training on organizational performance in selected insurance firms in Abuja, Nigeria. A total of 176 employees were involved in this study using a quantitative questionnaire survey method. The study found that there is a positive relationship between training effectiveness and employee performance. The duo argue that performance of an organization is dependent on knowledge and ability of its workers. They observe that induction and orientation have significant impact on employee job effectiveness. The study recommends that organizations should set up regular training and development programmes that are capable of improving the skills, morale and productivity of employees.

Saleh (2016) investigated the relationship between impact of training and development on Jordanian private sector transport companies. The purpose of the study was to establish

the relationship between training and development and employees' performance and productivity in selected Jordanian Private Sector. The study used a quantitative approach and a study sample of 254 employees. Questionnaire was distributed to employees on job location. Both descriptive and inferential statistics were used for data analysis. The study concludes that training and development have important impact on employee performance and productivity and recommends that organizations can enhance employee's skills and upgrade their knowledge for better performance.

Emmanuel, Umar and Oluseyi (2013) studied training and development, a measure for performance in organizations performance focusing on a few financial organizations in Nigeria. Primary data was used for the study and was collected by use of questionnaires from a sample of 395 respondents from a population of 35,386 from the five banks used for the case study. Simple random technique was used to select the respondents. Data collected was analyzed using descriptive statistics, and Pearson's correlation. Multiple regression was employed to test the hypothesis. The study observes that training and development enhances employee performance and work efficiency in the banking industry in Nigeria. The findings reveal that training and development is positively related to performance and that employees need to be motivated during training programs. The duo recommend that other institutions should train and motivate employees. The study therefore concluded that for training and development to have significant impact on organizational performance, employees need to be motivated during training programs.

Okechukwu (2017) examined the impact of training and development on employee performance among the staff of school of technology management and logistics,

University Utara, Malaysia. The study was quantitative in nature and collected data from 81 respondents using a questionnaire. Observations were that training and development have a positive impact on performance. Further the study established that training and development and employee performance is an efficient and supportive strategic to organization and employee success. The study affirmed that there is a significant relationship between training and development and employee performance and job satisfaction and success of an organization.

Al-Qudah, Osman, Ab Halim and Al-shatanawi (2014) examined human resource planning, training and development towards organizational performance in Government ministries in the kingdom of Jordan. The study was descriptive in nature. The study population, which consisted of employees in the HR departments in 23 Jordanian ministries, comprised 166 respondents. The findings indicate that HR planning, training and development significantly correlated with the organizational performance in the Jordanian Ministries. Recommendations made were that improved training and development could improve performance in the ministries because employees' skills, knowledge and abilities can be enhanced and upto date.

Mansour (2013) conducted an empirical investigation on the impact of training in organizations in a Developing country, Saudi Arabia. The study sample comprised of 124 employees of different organizations in Saudi Arabia. The data was collected through a questionnaire distributed and collected online. The results show that there is a positive relationship between training and performance of employees. The study contents that training is very important for any organization to compete within this challenging and changing world. The study recommends that all organizations should provide training to

their employees and those companies should offer training models by using e-learning and enhancing employee self-development.

Zain and Javed (2015) carried out a study on the effect of employee training and development on organizational performance; a case of the telecommunication sector of Pakistan. The study was descriptive in nature. Data was collected by use of questionnaires from 200 employees. Descriptive statistics and graphs were used to analyze data. Results from the study show that where training is not enough and frequent, there is minimal performance. The results further point out that there is a strong relationship between employee training and organizational performance. The study further recommends that current change in employee's skill sets requires constant and frequent training in the industry.

Khanfer (2011) examined the impact of training and development on improving Hoteling service quality in Jordan. The study was descriptive in nature and used a random sample of 50 employees and managers working in Five-Star Hotels. The findings show that the method of training used, goals and objectives significantly influenced performance in the industry. The study recommends work plans and effective methods of training that are commensurate with the objectives of the course. Further instructors should be knowledgeable in the area of training.

Rahman, Jumani, Akhter, Chisthi and Muhammad (2011) examined the relationship between training of teachers and effectiveness in teaching and performance of students in Muslim schools in Islamabad. A sample of 80 female teachers with 180 female students of Grade 8 from 50 urban Muslim senior centers were stratified for the study. The study

was descriptive in nature. Findings from the study reveal that teacher training and development had effects on student's performance. The study concludes that teacher training was positively related to effective teaching hence academic performance.

Switbert (2013) investigated the effects of teachers training and development on students' performance in 35 private secondary schools in Tanzania. The study involved, determining the extent that teachers training and development programs have effect on performance. The study used Dar es Salaam region as a case study area with 285 secondary schools from which a sample of 70 respondents was selected involving both teachers and owners of secondary schools. Data was collected by use of questionnaires and interviews. The study recommended that the secondary schools' stakeholders and investors should invest on training and developing of teacher employees as they affect the performance of the learners who need to have good and quality education.

Nyakundi (2013) investigated the effect of training and development on teacher motivation in Thika sub-county. The study used a descriptive research design. The target population was the principals and teachers of the public secondary schools in the Sub-county. Random sampling technique was used to select teachers while purposive sampling technique was used to select the principals. A total of 126 respondents participated in the study. Questionnaires were used to collect data from teachers while interview schedules were used to collect data from principals. Statistical Package for Social Sciences (SPSS) was used to analyze the quantitative data where descriptive statistics such as means, standard deviation, frequencies and percentages were used to describe the data. The study concludes that reward systems, professional training and development and work situational-factors affect employee performance.



Mahulo (2012) examined the influence of teacher training has on students' results from mixed public high schools in Gem, Location Kenya. He employed a descriptive survey design. The population of the study consisted of 107 teachers drawn from 20 schools. The study findings show that training alone does not contribute much to the performance of students in Gem District. The study recommends that teachers should be professionally trained to enhance their productivity. This must not necessarily be at university and college levels.

Weru, Iravo and Sakwa (2013) studied the relationship between training and development on performance of state owned corporations in Kenya. The target population was 232 Human resource managers from which a sample of 142 respondents was selected. The study adopted an Explanatory research design. The research tool was a questionnaire. The study hypothesized that: there was a positive relationship between training and development and organizational performance and therefore the need to investigate how specific the two variables relate. The findings established a positive correlation between training and development and organizational performance and therefore recommended to the authorities of the corporations studied to give main focus to training and development function to enhance organizational performance. The study concludes that training is necessary due to rapid changes in technology and that organizations should train the staff.

#### **2.5.4 Compensation Practices and Performance**

Omotayo, Pavithra and Adenike (2014) conducted a study titled compensation management and organizational commitment in developing economies: Indian Perspective. The study which was based on data obtained from 500 workers in Indian

manufacturing companies explored the connection between compensation management and organizational. The study was a survey in design. Structural model with standardized parameter estimates show that benefits have direct link with job stability. Similarly, training and salary package have strong link with organizational commitment. Further, it was established that training, salary package, and promotion opportunities have negative link on job stability.

Adeniji and Osibanjo (2012) studied compensation packages: a strategic tool for employees' performance in Sentu-West Nigeria. The aim of this study was to examine the effect of compensation packages on employees' job performance and retention in a selected private University in Ogun State, South-West Nigeria. The study was a survey design. 111 questionnaires were developed and completed by academic and non-academic staff of the university. The collected data was analyzed using simple percentage supported by structural equation modeling to test the hypotheses and relationships that may exist among the variables under consideration. The study shows strong relationship between compensation packages and employees' performance and retention. The study recommends review of compensation packages in organizations.

Akter and Moazzam (2016) did an empirical study on the effect of Compensation on Job Performance: The aim of the study was to investigate the effect of compensation on job performance of 20 different readymade garment organizations (RMGs) in Chittagong, Bangladesh. The study was a census. Data was collected by use of questionnaire from 261 respondents working in the organizations. The theoretical analysis of the study shows that proper strategy and policy based compensation scheme can enhance performance. Employees will confer the maximum effort when given the best current market scheme

and maintained by the organization. The study concludes that there is a strong and positive relationship between compensation and job performance.

Ulumma and Amah (2016) studied compensation and organizational success in selected banks in Port Harcourt. The study was a cross sectional survey. The relationships were analysed in stages of charts and frequency distributions. The results showed a significant relationship between compensation namely wages and salaries as well as fringe benefits and organizational performance. The study concludes that compensation is significantly associated with organizational success.

Hassan (2016) studied the impact of HRM practices on employee's performance in the textile industry of Pakistan. The study used the descriptive design. Random sampling technique was used to select a sample study. A questionnaire based on 34 items was distributed among 68 employees of textile industry for data collection. The results indicate that HRM practices; compensation, career planning, performance appraisal, training, and employee involvement have a positive impact on employee's performance. The study recommended research on other human resource practices.

Obasan (2012) examined the impacts of compensation strategy on corporate performance using some selected firms in Nigeria as a case study. The study involved largely the use of primary data for purpose of empirical analysis. The primary data were obtained using 150 questionnaires and selected interviews from the staff and the management of the selected business units. Random sampling technique was employed in the distribution of the questionnaires. Cross-sectional data analysis was used to analyse data. The findings reveal that compensation strategy has significant and positive effects on work

productivity and that organizational strategy is a veritable option for attracting, retaining and motivating employees for improved organizational productivity.

Ibojo and Asabi (2014) examined the extent to which rewards affect workers results in hospitality sector in Nigeria, Questionnaires were used to gather necessary and relevant primary data from respondents. Data was analyzed using inferential statistics. The study results show that there is a significant relationship between improved compensation and employee performance. The study concludes that there is a significant relationship between good welfare service and employees' performance. More so, there is a significant relationship between compensation management and improved productivity.

Rizal, Syafie, Djumahir and Mintarti (2014) examined the effect of compensation on motivation, employee commitment to the organizational and employee performance at local revenue management organization in Indonesia. The study was a case involving 126 employees selected randomly. Data was collected by use of questionnaires and analysed using structural equation model. The results show that compensation has significant effect on employee performance. In addition, compensation alone cannot improve employee performance. Employees need to be motivated.

Ojo and Adeniji (2014) investigated the effect of compensation packages on employees' job performance in Ogun State University, South-West Nigeria. The study was a survey research. Questionnaires were used for data collection from academics and non-academic staff of the university. The data collected was analyzed using descriptive method and simple percentage. The hypothesis proffered was tested with the use of chi-square. The study revealed that there a positive relationship between compensation and employees'

performance. If employees were adequately compensated they will perform better than those who are poorly compensated. The studies further recommend that management and decision makers should endeavor to review compensation packages at various levels in order to earn employees' satisfaction and prevention of high labour turnover among the members of staff.

Tangthong (2014) did an empirical study to investigate the influence of compensation and benefits and rewards to of management on organizational performance in King Mongkut's Institute of Technology Ladkrabang, Thailand. Data was collected from 224 top management, human resources managers/leaders and line managers. Data collected was tested using AMOS of Path Analysis modeling. The test results show that compensation and benefits and rewards management and have an influence on organizational effectiveness. While compensation and benefits influence performance in technology institutes, the current study seeks to find out if it would be the same in secondary schools using school principals in a Kenyan context.

Hameed, Muhammad, Hafiz, Ghazanfar and Muhammad (2014) examined the impact of compensation on employee performance of banks in Pakistan. The study was descriptive in design. The aim of the study was to measure the impact of compensation on employee performance. Samples of 360 respondents was randomly selected across the incorporated business organization in the study. A questionnaire was designed to collect the data on the factors related to compensation like salary, rewards, indirect compensation and employee performance. Regression analysis was used to analyse data collected. Results show that there is a strong relationship between compensation and employee performance. The findings of the study show employees can be influenced by the level of

expected benefits from a given type of compensation strategy and recommends that firms should use incentives in order to enhance employee performance.

Quereshi and Sajjad (2015) studied the impact of compensation on job performance and work-family conflict in the kingdom of Saudi Arabia using a correlation model. Primary data was collected from 400 employees working in Saudi Arabia. The model indicates a relationship between compensation, job performance and work-family conflict by showing the impact of compensation, which is directly and indirectly linked to work-family conflict through job performance of an employee in the Kingdom of Saudi Arabia. The model shows that compensation to the employees should be paid attention to, which would result in enhanced job performance and conflict free work-family environment. Compensation has a positive impact on the job performance of the employees working in different sectors of Saudi Arabia.

Onwuka and Onwuchekwa (2018) studied compensation management and organizational performance in selected pharmaceutical companies in Awka, Anambra State, Nigeria. The case study aimed at establishing the influence of compensation policy on employee performance in the selected pharmaceutical companies in Anambra state. Data was collected from 286 respondents. Ordinary chi square statistical tool was used to analyze data. The study establishes that there is a linear relationship between compensation policy and employee commitment. The study further notes that cash rewards were reflective of individual skills and effort which included allowances for extra duties and responsibilities. The employees' compensation included pension schemes; personal security through illness, health or accident insurance covers; safety in work environment, financial assistance for loans, purchase of organizational products and work life.

Muguongo, Muguna and Murithi (2015) studied the effects of compensation on job satisfaction among secondary school teachers in Mara Sub - county of Tharaka Nithi county, Kenya. The objectives of the study were: to determine the effects of both financial and non-financial compensation on job satisfaction. The study was a descriptive survey research design and had a target population of 474 teachers from 3 schools. The study establishes that basic pay, allowances and work environment affect teachers' job satisfaction to a great extent. The study recommends that the government reviews the teachers' compensation to commensurate the services rendered. The findings of the study suggest that compensation packages may improve satisfaction hence academic performance.

Mitalo, Muindi and Pokhariya (2018) examined the effect of employee motivation and performance of academic staff in Kenyan chartered public universities. They studied the effect of rewards on employee performance. They study adopted descriptive cross-sectional methods. The respondents were the academic staff of 23 Kenyan chartered public universities. Multistage sampling technique was used to identify respondents from Kenyan chartered public universities. A sample size of 370 academic staff was selected from a population of 2011 using easy sample size calculator. Data was collected on employee compensation, supervisor support and employee performance using a questionnaire. Quantitative technique was used to analyze the data. The study found that employee compensation had a weak positive significant effect on employee performance. The study recommends that compensation programs should be tailored to motivate employees.

Gitonga et al.(2016) examined the influence of rewards on workers results of Mombasa Cement Limited. The study used survey research method. The population of the study was 153 employees of Mombasa Cement Limited based at the headquarters, Athi- River Town in Kenya. A stratified sampling technique was used to select respondents. The study used questionnaires as the primary research instrument for the collection of data from the selected respondents. Quantitative data collected was analyzed and interpreted using descriptive statistics. Pearson correlation method was used to evaluate the linear relationship between two continuous variables in the study. The study found that a reasonable salary, benefits in form of bonuses and allowances and both certification and verbal recognition promoted employee performance. The study concludes that workers rewards have a positive effect on employees' performance. The recommendation of the study is that the organization and others need to improvise employee recognition programs for jobs well done; this will motivate employees thus enhancing employee productivity.

The above discussion of studies on compensation and performance was done in various organizations in different contexts. The studies have pointed out that for organizations; compensation is a cost or expenditure, as well as an important tool to obtain competitive advantages. This study was conducted in a Kenyan context to find out the relationship between compensation and performance in a school setup.



### **2.5.5 Staff Safety and Performance**

Kaynak, Toklu, Elci and Toklu (2016) investigated the influence of occupational health and safety practices on commitment of workers in private sector of Pakistan. The study design is survey. Data was collected from 300 workers across the sector, it was analyzed by structural equation modeling using least squares method. The findings of the analysis suggest that occupational health and safety practices have a positive effect on organizational performance. The study further notes that safety procedures and risk management safety and health rules and organizational safety support increased performance of employees.

Ahmed, Mustaq and Tabassum (2014) did a study to assess the existing situation of occupational health and safety in the textile industries of Lahore. A survey was conducted from 500 workers in the industries. The questionnaire was based on working time, number of accidents, cause of accident, affected part of body, and nature of injury, use of personal protection equipment, health safety policy and first aid facility and Risk analysis was based on severity and likelihood of workers. The recommendations were that overall, health safety policy should be well applied to workers and they should be made aware of its existence and value. This will enhance the productivity.

Agwu (2016) examined the impact of employee's security on firms results, of Sheel and Bonny Terminal Company in Niger Delta. An exploratory cross-sectional survey was used to generate the primary data required for the study. The population of study consisted of 40,568 workers of three categories (3,560 supervisors, 10,028 foremen and 26,980 workmen). The study sample was selected using stratified random sampling to

design a questionnaire. Analysis was presented using tables, analyzed and interpreted using simple percentages. The study observes that where a culture of safety has been inculcated in the workforce, there will be improvement in employees' obedience to safety rules and regulations thus enhancing better safety performance. This leads to few accidents, damages, liabilities, and legal costs. Better safety practices of the company will bring about better productivity, profitability, efficiency, quality, good corporate image and innovative capacity. The study recommends that top management make should commitment to safety standards.

Makhamara (2016) studied the influence of occupational health and safety on organizational output in Kenya: Kapa oil refineries limited. The study targeted a population of 2000 employees from which a sample of 100 respondents was drawn from the top management, middle level management and lower level management. The sample was selected using stratified sampling technique. Quantitative data was analyzed using descriptive statistical tools. The study recommends that the management should continually train its employees on health and safety issues. Training should also be carried out on health and safety on use of new equipment. The management should further conduct proper training to new staff and have efficient orientation. Inferential statistical tools such as correlation and regression analysis were used to analyse the data. The study recommends that employees should be trained on preventive safety rules.

Sembe and Ayuo (2017) examined the effect of occupational health and safety management practices on job satisfaction of employees in university campuses in Nakuru Town, Kenya. The study was descriptive in nature and used census design to draw a sample. The target population comprised of 258 samples of non-teaching staff in all the

university campuses situated in Nakuru. Questionnaires were used to collect data. Data analysis was done using multiple regression analysis and descriptive statistics such as frequencies. Data presentation was done using tables, charts and graphs. The findings reveal that the practice of occupational health and safety leads to improved job performance among employees. The study recommends that other organizations should put in place Occupational Health and Safety Management Practices.

Jonathan and Mbogo (2016) did a survey on maintaining health and safety at the workplace: The study focused on the role of employee and employer's a safe working environment. The study was descriptive in design. Data was collected using questionnaires Frequency tables and charts were used for data presentation. From the findings majority of the teaching staff were not involved in the training programs that would equip them with safety skills in their workplace. The recommendation was that school administrations organize training programs for the teaching staff, on safety policies since this affects their output.

Musyoka (2014) investigated the relationship between health and safety programs on performance of manufacturing firms in Mombasa County, Kenya. The study was a descriptive survey. The respondents were 60 heads of departments in the manufacturing firms. Data was analyzed using descriptive statistics such as mean, standard deviation, percentages and frequencies. The study used Pearson analysis was used to show the relationship of health and safety programs and how they related to work performance. The findings were that many of the firms that responded had taken some health and safety measures and that they had shown positive effect on work performance. The study recommends implementation of health and safety programs at the work place because it

has a positive impact on employees' performance. All organizations should implement health and safety programs, not just because it is a government requirement, but because it is of great benefit to the organization, and it results to improved employee performance.

Wambulwa and Namusonge (2018) looked at occupation safety and health and the effect on performance at Nzoia Water Company in Trans-Nzoia County. The study was descriptive in design. The target population was the entire 138 employees. Questionnaires were used in data collection. Data analysis was done both quantitatively and qualitatively. Regression model was used for data processing and analysis. The study reveals that accident reduction enhances organizational growth, survival as well as performance. Workers performance the organization should provide a health and safety programme to the employees yearly to reduce cost. It should help employees acquire knowledge and skills on how to deal with health and safety issues to reduce accidents. Top management should support health and safety issues awareness.

#### **2.5.6 School Infrastructure and Performance**

Zainuddin and Subri (2016) carried out a study to determine the school facilities that may improve student's achievement for secondary school in Malaysia. The study was descriptive in nature and data was collected from 144 students and three teachers using a questionnaire and an interview guide. The study findings reveal that students from schools with adequate physical facilities which are in good condition influence students to perform well in learning process and examination. The study concludes that physical facilities improve students' academic achievement and that educational administrators should put such facilities in place.

Studies by Olufunke and Olubunmi (2016) examined the relevance of physical facilities in enhancing motivation and results of schools in South west Nigeria. The sample, consisted 1050 secondary schools. The researcher used questionnaires to collect data from the students. The findings of the study show that there was a relationship between the study variables, and that physical facilities should be made available for better performance.

Uko (2015) investigated how proficiency and creativity of principals affect the management of school facilities in Cross River State, Nigeria. The sample of the study included 36 secondary schools, with two drawn from each of the 18 Local Government Areas in the State. The primary data were collected using questionnaire and personal interview guide while the secondary data were collected from checklists, school records and documents, journals and the internet. The outcome of the study shows that there is a significant relationship between the principal's proficiency, creativity and the overall educational objectives in the management of school facilities. This shows that effective management of physical structures school is important in creating an academic climate thereby enhancing a corresponding achievement and performance in the teaching learning process. The study recommends maintenance culture of school facilities.

Amadi and Ezeugo (2019) examined learning facilities and the results of students in Rivers State. The population of this study was 1590 teachers, from 34 junior secondary schools in Port Harcourt and Obio/Akpor LGA, Rivers State in Nigeria. The sample size for this study was 470 UBE teachers. Stratified random sampling technique was used for the study. Questionnaires were used to collect data. The findings reveal that both students and teachers need facilities such as libraries, laboratories, good buildings, classrooms,

good water supply, toilet facilities, security and others for teaching and learning to take place. Educational administrators should allocate funds for the provision and maintenance of the resources.

Kevin (2012) studied the impact of teaching and learning infrastructure in the provision of quality education in public secondary schools in Nyakach County, Kenya. The study was descriptive in design and the target population was 48 secondary schools and the sample size was 351 respondents drawn from 339 form three students and 12 principals. Quantitative data was analyzed through descriptive statistics. The findings of the study show that academic success is associated with adequate classrooms, properly stocked library, adequate science laboratories, adequate sanitation, and improved participation in co-curricular activities. The study recommends that the MOE should introduce sharing of infrastructure with neighboring schools to improve performance and also that similar studies should be carried out in other settings for generalization of results across a broader spectrum.

Ndirangu, Thinguri and Mugwe (2016) examined the application of physical facilities as determinants of holistic education in Kiambu and Samburu Counties in Kenya. The study employed an explanatory mixed method design using a sample of 707 respondents. The sample consisted of 20 principles, 76 senior teachers, 533 Form Three students, 76 Board of Management and 2 quality assurance and standard officers. The study used a questionnaire and interview guide. The findings revealed a significant relationship between physical facilities and holistic education. The study recommends use of academic and nonacademic dynamics such as physical facilities are viable and timely ingredients for sustainable and holistic educational development. The study recommends

that schools educationists and school leaders and managers should adopt a well-balanced combination of academic and nonacademic variables towards academic improvement.

Mumasi (2013) carried out a study in Narok-North sub county, Kenya, on school-based factors influencing students' performance at the KCSE examination. The study was a descriptive survey design. The target population was 19 public secondary schools. Using stratified sampling 201 Form Three students, 48 teachers and six principals were selected. It was found that school administration and availability of physical facilities like classrooms laboratories and dormitories influenced students' academic performance.

Fuzu (2014) investigated the influence of infrastructure on the performance of science students in their studies in high schools in Meru. The study investigated problems facing science students and how infrastructure influences performance. Questionnaires, interviews and observation were used to gather information. The population of the study was 50 respondents who included science teachers, heads of science, heads of schools and education officers. Two schools were randomly selected by simple random method. Qualitative and quantitative data collected was analyzed by regression method. The study found out that shortage of science laboratories and learning facilities affected the performance of students. The study recommends that the MOE, parents and science teachers should play their role in improving school infrastructure.

Mokaya (2013) carried out a study that studied the impact physical structures have on the provision of quality education in public secondary schools in Kajiado County. The study was a descriptive survey. The target population was 528 teachers, 1652 Form Three students and 1420 Form Four students. The study involved both qualitative and quantitative data.

Tables and a report were used to present the findings of the study. The study found that improved academic achievement is associated with more adequate and well-spaced classrooms, adequate and ample spacing in the libraries, adequate science laboratories, adequate water and sanitation facilities and adequate participation in co-curricular activities.

The studies above were conducted in industries, fewer schools or an entire sub county. The focus of this current study was to find out if school infrastructure had a moderating effect on academic performance in secondary schools in the entire Machakos County.

## **2.6 Critique of Existing Literature**

The reviewed literature has identified several theories such as resource based theory, universalistic theory and human capital theory which have been used as the basis for the study. Critics of the Resource Based View note that the theory is focused on the internal organization of a firm and it does not consider the external factors like the demand side of the market. So even if a firm has the resources and the capabilities to gain a competitive advantage, there is need to consider demand and the customer (Namusonge et al., 2015). For example, McDonald (2017) observes that the theory is only important in generating understanding and providing structures for strategy. Bryson et al. (2018) criticized the Human Capital Theory for putting high expectation on human capital and HRM programs to change the workplace.

Various empirical studies reviewed have assisted in focusing some light on the influence of recruitment and selection practices, training and development, rewards and safety practices of performance of organizations, schools included. The literature reviewed has



not adequately addressed academic performance on and the moderating effect of infrastructure facilities.

The study by Gamage (2014) in manufacturing SMEs in Japan examined HRM practices in SMEs. The study focused on the relationship between recruiting and selection practices and business performance. The study showed a strong positive relationship between recruitment and business practices and business performance of manufacturing SMEs in Japan. However the sample size was too large and it was done in a developed economy. The study recommends further research in other organizations. However, the results can not represent organizations in developing economies.

Ekwoaba et al.(2015) investigated the impact of recruitment and selection on performance in Fidelity Bank, Lagos- Nigeria. The findings of the study are justified because recruitment is central to performance in any organization. However, the context and sample size of the study is different and may not be taken to represent other organization like schools.

Ntiamoah et al. (2014) did an investigation into recruitment and selection practices and organizational performance evidence from Ghana. The sample size was 160 respondents. Although the findings of the study showed significantly that recruitment and selection process by firms demonstrates its demand from its environs and also recruitment and selection practices are directly related to organizational performance the context of the study was different and the sample size too small to be generalized for all organizations.

Priya and Sundaram (2016) examined the relationship among the HRM practices, and organizational performance from four leading hospitals in Tiruchirappalli District. A

sample of 250 nurses was drawn from the population of 600 nurses using a structured questionnaire. The results showed that recruitment and selection, training and development were significant predictors of organizational performance and that improvement was not only a result of well-functioning system but also depended on effective human resource strategies that succeeded in recruiting and maintaining a committed and motivated workforce. The findings are justified. However, the context could not be generalized to include schools and other organizations.

Kepha et al.(2015) concludes that recruitment and selection have been singled out as a major Human Resource Management practice that can have an influence on the workers in a firm. While the findings are justified, the context is different and the study sampled only two variables. Hameed and Mohamed (2016) conclude that HRM practices; recruitment and selection and training and development have the ability to transform organizations. This may be justified in the context of a hospital. It may not be the case in schools.

Tadesse, Zakaria and Zoubeir (2016) conducted a study on the-practice and challenges of HRM in Government schools in East Shoa Zone Nigeria. The study concluded that there was a negative relationship between HRM practices, teachers' recruitment, performance appraisal and performance of teachers. This may be true in a Nigerian context. There was need to find out the nature of the relationship in schools in the Kenyan context.

Kepha (2014) focused on the relationship between HRM practices, recruitment and selection, training and development, reward system and staff welfare and performance in research institutes. The study findings show that there is a relationship between the

dependent and the independent variables as is the case in the research institutes and recommended further research in other organizations.

Odhiambo (2013) focused on the influence of HRM practices on performance of Collage of Humanities and social sciences, University of Nairobi. The study successfully focused on recruitment and selection, training and development, reward system and health practices. The study successfully concluded that best HRM practices have a positive influence on organizational performance in the college. The study recommends further research on other organizations. The findings of the study are justified in a university but may not relate to other organizations, schools included. The study did not consider a moderating variable which is done in the current study.

Mutiso and Kilika (2017) studied on the relationships between HRM practices and quality of service delivered in schools Taita Taveta. The study successfully concluded that there is a positive relationship between quality of service and HRM practices recruitment and selection, performance management, employee health and training and development. The study recommends further investigation of senior executives in a school. The findings of the study are limited to public schools and do not include private schools. The study did not consider infrastructure which is done in the current study.

Sang (2015) examined the influence between HRMP and manpower productivity Kenyan firms using the HRM practices. The study successfully found that when the HRM practices were bundled together, they had a significant effect on labour productivity. The study concludes that HRM practices positively affect labour productivity, and it recommends that other sectors should transform from personnel

management to HRMP so as to ensure high labour productivity. The findings of the study are justified but may not be generalized to public institutions and schools. The current study addresses specific human resource practices and infrastructure.

The current study differs from the above reviewed studies in terms of context. This is because the reviewed studies were done in hospitals, textile industries, universities, colleges and research industries. Where the studies were carried out in schools, the focus and scope was different. Where similar variables were addressed, there was a recommendation for further research. The scope of the current study is 413 schools in Machakos County and how the identified Human Resource Management practices, school infrastructure influence academic performance.

## **2.7 Research Gaps**

Studies previously done on recruitment and selection practice, including studies by Gamage (2014), Ezeali and Esiagu (2015), Priya and Sundaram (2016), Kepha, Mukulu and Waititu (2015), Wambua and Genga (2018), examined the influence of HRM practices in other organizations and point out the important link between recruitment and selection practices, and recommend further studies on recruitment and selection. They did not focus on Machakos County. This study will examine the influence of teaching staff recruitment and selection practices on academic performance of secondary schools in Machakos County.

Researches, including the ones by Tahir, Yousafzai, Jan and Hashim (2014) Okechukwu (2017) Nyakundi (2013) Mahulo (2012), have examined training and development practices in organizations in other countries and those done in Kenya have focused in

schools in other counties, very few studies, if any, have addressed the influence of training and development practices on academic performance in Machakos County. This study will focus on the influence of training and development on academic performance of secondary schools in Machakos County

Previous studies done on compensation practices including the ones Omotayo, Pavithra and Adenike (2014), Adeniji and Osibanjo (2012), Quereshi and Sajjad (2015), Muguongo, Muguna and Murithi (2015), Mitalo, Muindi and Pokhariya (2018), Gitonga et al.(2016) have examined the importance of compensation on employee performance in other organizations in varied economies and organizations. They have pointed a link between compensation and performance and recommended further research. This study will focus on establishing the influence of teaching staff compensation on academic performance of secondary schools in Machakos County.

Studies done on safety practices including ones by Kaynak, Toklu, Elci and Toklu (2016) Makhamara (2016) Sembe and Ayuo (2017) Jonathan and Mbogo (2016) Musyoka (2014) Wambulwa and Namusonge (2018), have shown a link between safety and performance in other organizations and not schools in Machakos county.They have recommended further research on the influence of safety practices in organizational performance. This study examines the influence of safety on academic performance of secondary schools in Machakos County.

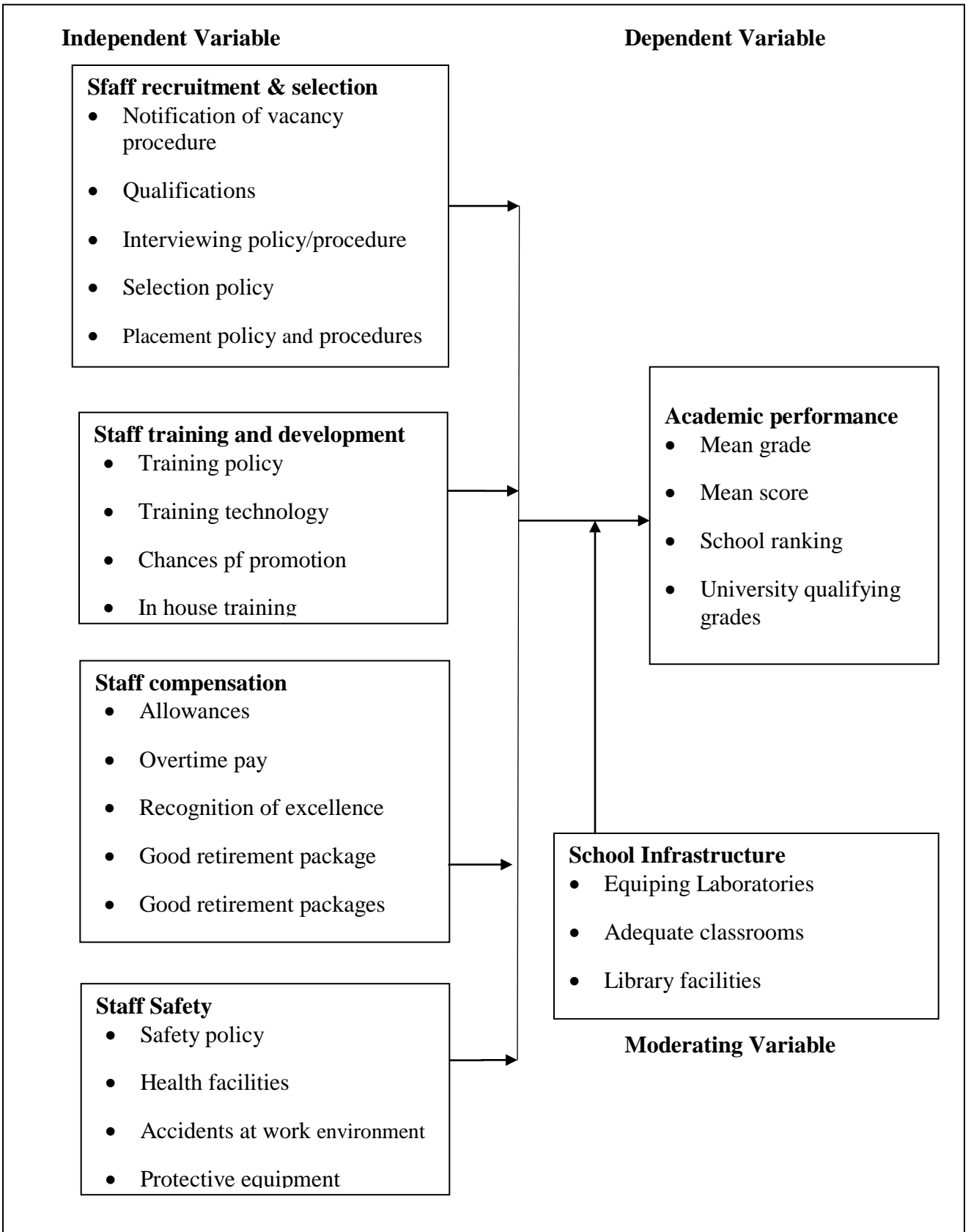
Studies done on infrastructure and performance including studies by, Zainuddin and Subri (2016), Uko (2015), Amadi and Ezeugo (2019), Kevin (2012), Ndirangu, Thinguri and Mugwe (2016), Mumasi (2013), Mokaya (2013) have been focused in other

organizations some in western countries and not schools in Machakos County. Those done in schools have targeted fewer schools and also not on the effect of the moderator, school infrastructure, on academic performance. This study sought to bridge the knowledge gap by establishing the moderating effect of school infrastructure on the relationship between Human Resource Management practices and academic performance of secondary schools in Machakos County.

## **2.8 Conceptual Framework**

The conceptual framework is derived from reviewed literature related to the study in the previous section. The conceptual framework points out the considered HRM practices which act as the independent variables and how they relate with academic performance of the schools which is the dependent variable. The theoretical review showed that HRM practices were key to performance in organizations. The development of the conceptual framework was arrived at after reviewing the work of Hameed et al. (2014), Singh and Kassa (2016), Odhiambo (2013), Kepha (2014), Ombewa (2013), and Tadesse et al.(2016).

This study examines the influence of Human Resource Management practices namely, staff recruitment, training and development of staff, staff compensation and staff safety on the academic performance of secondary schools in Machakos County and whether school infrastructure moderates the relationship. The derived conceptual framework is shown in Figure 2.1.



**Figure 2.1: Conceptual Framework**

The independent variables of the study were teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation and staff safety. The moderating variable was school infrastructure. The dependent variable of the study was academic performance of secondary schools in Machakos County. Measures of staff recruitment and selection that were considered included notification of vacancy procedures, qualifications, interviewing policy and procedures, selection policy and procedures, placement policy procedures. Berberoglu (2018) points out recruitment strategies by organizations should be tailored toward specific positions to be filled. If employees are recruited in the right way, with proper qualifications, they are likely to give good results.

Staff training and development could then be seen as a mixture of activities aimed at improving the performance of personnel in organizations. The training aspects considered in the study included training policy, training techniques, in-house training and chances of promotion. According to Arif (2017), when organizations have a training policy, give the relevant training and use the proper techniques and continuously expose employees to relevant training on the job, they are likely to post quality results for the organization.

Staff compensation is not just about money, it is also concerned with that non-financial reward which provides intrinsic or extrinsic motivation (Molokomphale, 2015). The indicators of staff compensation practices considered in the study included allowances, overtime pay, and recognition of excellence and rewards. These were likely to encourage employees to improve their performance.



Staff safety refers to a work environment that promotes efficient performance of job tasks and is concerned with aspects of space, tools and equipment, environment and general support from the administration (York et al.). The safety practices considered in the study included safety policy, health facilities, and clear work environment. A safe environment is very key for quality performance. Organizations that have a safe work environment are likely to encourage employees to post improved performance (Uysal & Koca, 2019).

Infrastructure has been considered as having a moderating effect on performance. The physical infrastructure facilities considered in the study include, adequate classrooms, equipped science laboratories, well stocked libraries. These are assumed to influence HRM practices on academic performance in a school. The dependent variable that is academic performance was arrived at after reviewing the work of Kepha (2014) who argues that HRM practices influence performance of employees in research institutes and recommends similar studies in other institutions. Academic performance indicators considered in this study included mean grade, mean score, school ranking and university qualifying grades. When HRM practices were put in place, schools were likely to improve their academic performance.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter covers the research design, research philosophy, the target population, sampling procedure and sample size, validity and reliability. It also discusses the data collection instruments and data analysis methods employed when carrying out this study.

#### **3.2 Research Philosophy**

This study was anchored on the pragmatic paradigm. The paradigm arose among philosophers who argued that it was not possible to access the ‘truth’ about the real world solely by virtue of a single scientific method as advocated by the positivist paradigm, nor was it possible to determine social reality as constructed under the interpretivist paradigm. For them, a mono-paradigmatic orientation of research was not good enough. Rather, these philosophers such as Snyder (2019) observes that what was needed was a worldview which would provide methods of research that are seen to be most appropriate for studying the phenomenon at hand.

A worldview that provided the most practical, appropriate and pluralistic research methods for studying the phenomenon at hand was thus needed. This gave rise to a paradigm that employs mixed methods as a pragmatic way (pragmatic paradigm) to understand participants’ actual behaviors, their beliefs behind the behaviors and the consequences that are likely to follow from their different behaviors (Kivunja & Kuyini, 2017). This paradigm generally advocates a relational epistemology (that is, relationships

in research are best determined by what the researcher deems appropriate to that particular study), a non-singular reality ontology(that there is no single reality and all individuals have their own and unique interpretations of reality), a mixed methods methodology(a combination of quantitative and qualitative research methods), and a value-laden axiology(conducting research that benefits people) (Nguyen, 2019).

Agoi (2017) used this approach to study the influence of Human Resource Management practices on employee satisfaction in public sugar manufacturing firms in Kenya. Al Khajeh (2018) used mixed methods in a study on Human Resource Management practices and tutor turnover intentions in public primary teacher colleges in Nairobi metropolitan region in Kenya. This paradigm was best suited for this study since the phenomenon of Human Resource Management practices adopted in secondary schools in Machakos County and their influence on the academic performance in schools was assessed using a mixed methods methodology where both qualitative and quantitative research methods were used. The study is expected to benefit several stakeholders in the education sector, who by implementing the suggested recommendations would improve academic performance.

### **3.3 Research Design**

This study employed a mixed methods research design. The research design used both the qualitative and quantitative methods at the same time in the research process where both methods are equally prioritized, but kept separately when analyzing data (Ørngreen & Levinsen, 2017). The results from both approaches are merged in the overall interpretation stage. Therefore, the research approach uses diverse kinds of information

comprising of qualitative views of the respondents on the study subject and quantitative scores which yield complementary results were obtained. This ensured that a comprehensive study on the influence of Human Resource Management practices, school infrastructure on academic performance of secondary schools in Machakos County, Kenya was conducted and that the research problem was better examined.

Caruth (2013) notes that no research design exists on its own in and combining different designs in one study increases validity of the findings. Through this research design, the validity of the findings was enhanced. It was possible to maximize on the strengths and minimize on the weaknesses of the quantitative and qualitative approaches of research. The quantitative approach was hinged on the descriptive study approach which determines what, where and how of the study phenomenon and also assists in the description of the phenomenon in its current state along the lines of Cooper and Schindler (2011).

Amadi and Ezeugo (2019) used mixed methods to examine physical infrastructure availabilities and the academic performance of students in the Universal Basic education Scheme, Rivers state, Nigeria. Omisore and Okofu (2018) used mixed research methods to study the link between staff recruitment and selection process in the Nigerian public service. The descriptive study design facilitated the description of HRM practices adopted in secondary schools in Machakos County and how they had affected the level of academic performance among these schools. The approach helped in making sure that the study problem was not assessed through a single lens, but rather, diverse lenses which assisted in ensuring that the multiple facets of the study phenomenon were revealed and understood.

### 3.4 Target Population

A population is the total entire group of individuals, events or objects having a common observable characteristic (Mohajan, 2018). It is the aggregate of all that conforms to a given specification. All items in the field of enquiry constitute a ‘universe’ or ‘population’ (Snyder, 2019). It is described as the accessible population from where the study sample is drawn and upon which the study findings are generalized. The target population of the study was all the four hundred and thirteen (413) secondary schools in Machakos County which offered KCSE. The schools consisted of two (2) national secondary schools, thirty (30) extra county secondary schools, ninety three (93) county secondary schools, two hundred and seven (207) sub-county secondary schools and eighty one( 81) private secondary schools. The principals of these schools were the respondents. The numbers of targeted secondary schools in each category are outlined in Table 3.1.

**Table 3.1: Target Population**

<b>School Category</b>	<b>Target Population</b>
Naitonal schools	2
Extra county	30
County	93
Sub-county	207
Private	81
<b>Total</b>	<b>413</b>

### 3.5 Sampling Procedure and Sample Size

Sampling involves selecting a sub-set of cases in order to draw conclusions about the entire set (Zangirolami-Raimundo, Echeimberg & Leone, 2018). The size of a study sample is determined by factors like the degree of confidence attached to the study results, the total population size, and how the population is varied in terms of the characteristics to be studied (Nayak & Singh, 2021). A sample is a small part of large population, which is thought to be representative of the larger population. Any statements made about the sample should be true for the entire population (Snyder, 2019).

In this study, the key informants were drawn from six (6) schools namely the two (2) national, two (2) performing and two (2) weak performing secondary schools in Machakos County. Accordingly, purposive sampling technique was used to sample these schools. Agoi (2017) points out that in purposive sampling, researchers purposely choose subjects who in their opinion, are thought to have relevant information in the research topic. The Yamane's formula (1989) was then used to determine the sample size for the remaining secondary schools which were considered in the survey as follows;

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

Where N is the target population

n is the desired sample size

$\delta$  is the critical value of the confidence level (0.05)

Using the formula and a target population (N) of 407, a sample size of 201 secondary schools were drawn for the survey. Stratified random sampling was then used to select secondary schools from each stratum. This ensured that there was representation from each category of the population (Ørngreen & Levinsen, 2017). Stratified sampling also ensured a desired representation from each stratum. It also gave the researcher confidence that if another sample of the same size was selected the findings from the two samples would be similar to a high degree. The samples from each of the four categories of schools were determined as follows;

Sampled secondary schools per category (n) = (number of secondary schools per category/total number of secondary schools) \*201(sample size)

Extra county schools;  $n = (30/407) * 201 = 15$

County schools;  $n = (93/407) * 201 = 46$

Sub-county schools;  $n = (207/407) * 201 = 102$

Private schools;  $n = (77/407) * 201 = 38$

The numbers of secondary schools selected for the survey from each stratum are given in Table 3.2.

**Table 3.2: Sample Size**

<b>School Category</b>	<b>Target Population</b>	<b>Proportion</b>	<b>Sample Size</b>
Extra county	30	7.3	15
County	93	22.9	46
Sub-county	207	50.9	102
Private	77	18.9	38
<b>Total</b>	<b>407</b>	<b>100.0</b>	<b>201</b>

### **3.6 Data Collection Instruments**

A research instrument is a tool used to collect data (Kumar, 2018). Structured questionnaire and interview schedule were used to collect information from the respondents. Questionnaires were economical to administer in terms of time and cost to a large number of respondents. They ensured anonymity hence respondents could respond genuinely without fear of identification. Finally, the questions on paper and were standardized hence no opportunity for the researcher to be biased (Dźwigoł & Dźwigoł-Barosz, 2018).

The open ended question gave the respondents a leeway to give their honest views while closed ended questionnaires were used to generate statistics for ease of tabulation and analysis (Daniel & Harland, 2017). The questionnaire consisted a section on demographic information of the respondents and a set of items to measure the influence of Human Resource Management practices and infrastructure on academic performance of secondary schools in Machakos County. The key areas of the questionnaires were recruitment and selection of teaching staff, training and development of teaching staff, compensation of teaching staff and safety of teaching staff as the independent variables, school infrastructure as the moderating variable and academic performance as the dependent variable.

A five - point Likert Scale with choices ranging from strongly agree to strongly disagree was used to measure the perceived role of the Human Resource Management practices on academic performance of secondary schools in Machakos County. The Likert Scale was used because it is relatively easy to construct. It facilitates quantification of the responses,



ranking of items thus tendencies could be identified as the respondents were more likely to respond to all the statements in the instrument and could best help capture people's opinions (Snyder, 2019). An oral interview schedule was used to gather qualitative data from the key informants. Interviews help in collecting in-depth explanations which may not be possible to get from the questionnaire. Interviews allow the interviewer to probe the respondents and get clarification and more details in the area of study (Kivunja & Kuyini, 2017).

### **3.6.1 Operationalization and Measurement of Variables**

This section identifies the key variables of the study, their operationalization, their indicators as well as the measurement scale.

**Table 3.3: Operationalization and Measurement of Variables**

<b>Variable</b>	<b>Type</b>	<b>Operationalization</b>	<b>Indicators</b>	<b>Measure scale</b>	<b>Authors</b>
Recruitment and selection of staff	Independent Variable	The process of hiring employees to an organization and placing them in the jobs they are qualified to do based on merit	Notification of vacancy procedures Interview policy Selection policy Qualifications Placement policy	Aggregate index of 1-5 Appendix I Sec. A	Munyon and Summers (2011)
Training and development	Independent Variable	The formal activities designed by an organization to help its employees to acquire the necessary skills and knowledge to perform current or future jobs.	Training policy Forms of training in house training Career development policy	Aggregate index of 1-5 Appendix I questions in Sec. B	Niazi (2011)
Staff Compensation	Independent variable	Rates payment, system with the level of knowledge and skill	Allowances, overtime pay, recognition of excellence	Aggregate index of 1-5 Appendix I questions in Sec. C	Qureshi & Sajjad, (2015).
Staff Safety	Independent	Safe and risk free work place	Safety policy, clear, health facilities, clear work environment, no accidents	Aggregate scale of 1-5 Appendix I questions D	Kaynak et al (2016)
School Infrastructure	Moderating	Adequate facilities	Classrooms, equipped laboratories, libraries, fields	Aggregate scale of 1-5 Appendix I questions in sec E	Akella (2016).  Kelvin (2017).
Academic performance	Dependent	Level of standard success	Mean score Mean grade School ranking, University qualifying grades	Aggregate of 1-5 Appendix I questions in sec E	Kepha (2014) Kormla (2012)

### **3.7 Data Collection Procedures**

Approval was granted from the university to conduct the study and clearance sought from the National Council of Science Technology and innovation (NACOSTI). Once granted, visits to the sampled secondary schools were done and authority was sought to administer the questionnaires and collect data. The questionnaires were dropped and picked later. This ensured a higher response rate and reduced non-coverage error since respondents had time to express their views and opinions since they were all literate (Nguyen, 2019). Time was agreed on when to collect the duly-filled questionnaires. This gave the respondents adequate time to respond. Follow-up courtesy calls were made to remind the respondents to fill in the questionnaires thereby increasing the response rate. Three research assistants were contracted to assist in administering the questionnaires. Interviews were administered to the sampled respondents personally by the researcher.

### **3.8 Piloting**

Agoi (2017) notes that piloting of the research instruments means administering the instruments to a small representative sample identical to but not including the group one is going to survey. This is important in order to determine the validity of the instruments. Pilot testing refines the instruments so that respondents will have no problems in answering the questions (Ørngreen & Levinsen, 2017). Piloting also assists in determining if there are any weaknesses within the questionnaire design. The information gathered during piloting is then used to revise the instrument. Suggested amendments are incorporated into the research tools; and the pilot results do not form part of the final results. A pilot study was conducted in 15 randomly selected secondary schools in

Machakos County which were not part of the main study. These formed 7.5% of the sample. Cooper and Schindler (2011) observe that a minimum of 1% to 10% of the sample should constitute the pilot test.

### **3.9 Validity**

Validity is the degree to which the sample of test items represents the content which the test is designed to measure (Mohajan, 2018). It is the degree to which results obtained from data analysis truly represent the phenomenon under study. According to Snyder (2019), validity is the accuracy, truthfulness and meaningfulness of inferences that are based on the data obtained from the use of a tool or a scale for each construct or variable in the study. Content validity addresses how well the items in a questionnaire are developed to provide an adequate and representative samples for measurement. Given that the content validity is not statistically measurable (Nayak & Singh, 2021); the expert opinion and feedback of the assigned university supervisors was sought in assessing the relevance of the content in the questionnaire and modification of the instrument and thereby, enhanced validity of the instrument.

Construct validity refers to whether the scores of a test or instrument measure the distinct dimension they are intended to measure. Pearson correlation coefficients was used to test relationship among items in the questionnaire and show which items had similar relationships. This helped in editing and improving format and scales of questions in the questionnaire. The feedback from the pilot was incorporated in the final instrument to improve the content validity of the research instrument. In this case, Pearson's correlation coefficient  $r$  of the scores of respondent's responses to an item with their total scores was

computed. The validity results presented in the tables in Appendix V demonstrated that all the items for all the constructs in the study were valid since their correlations with the total values were significant given p values less than 0.05. Hence, none of the questions or items were deleted from the questionnaire.

In order to triangulate the responses from the key informants, their responses were compared with that from the survey that was conducted in order to check if both approaches yielded results that supported the study objectives or theory, so that the data was naturally more valid. In this study, qualitative validity was enhanced by ensuring careful documentation and the participants checking the data to ensure that what they said was written down and was not misrepresented.

### **3.10 Reliability**

Reliability of the instrument is the degree to which a particular measuring procedure gives similar results over a number of repeated trials (Snyder, 2019). To determine reliability of the questionnaire, Cronbach's Alpha coefficients were used to assess the internal consistency of the questionnaire. This is a technique of estimating reliability that does not require either splitting of a scale or the subjects retaking the test for a given construct hence eliminating the challenges inherent in split-half and the test-retest techniques (Zangirolami-Raimundo et al., 2018).

In this technique, the more the numbers of items in a scale, the higher the reliability as long as the added items do not reduce the average inter-item reliability. As quoted by Agoi (2017), Cronbach Alpha coefficients range in value from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous and/or multi-point

formatted questionnaires or scales. The higher the score, the more reliable the generated scale is. Kumar (2018) indicates that a value of 0.7 and above is an acceptable reliability coefficient for a given construct.

The findings presented in Table 3.4 shows that the Cronbach alpha coefficients for all the variables were more than 0.7, an indication of high reliability and on this basis, it was inferred that the scales used in this study were reliable to capture the study variables. Academic performance construct had the highest reliability ( $\alpha=0.960$ ) followed by recruitment and selection of teaching staff ( $\alpha=0.953$ ), then school infrastructure ( $\alpha=0.938$ ), staff safety ( $\alpha=0.925$ ), staff compensation ( $\alpha=0.830$ ) and finally, staff training and development( $\alpha=0.791$ ). The pilot study thus revealed that the questionnaire that had been designed was reliable and could therefore be used for the main study.

**Table 3.4: Reliability Results**

<b>Variable</b>	<b>N</b>	<b>No. of Items</b>	<b><math>\alpha</math> =Alpha</b>	<b>Comment</b>
Recruitment and selection of teaching staff	15	5	0.953	Reliable
Teaching staff training and development	15	5	0.791	Reliable
Teaching staff compensation	15	6	0.830	Reliable
Teaching staff safety	15	7	0.925	Reliable
School infrastructure	15	9	0.938	Reliable
Academic performance	15	4	0.960	Reliable

The reliability of the interview schedule was enhanced by documenting all the procedures applied, checking the written responses from the interviewees for obvious mistakes, making sure there was no drift in definitions of codes or applications of them during the coding process and ensuring that all the communications made during the meetings were documented.

### **3.11 Data Analysis and Presentation**

Data analysis is the categorizing, manipulating and summarizing of data in order to get answers to research questions (Daniel & Harland, 2017). In this study, both quantitative and qualitative approaches to data analysis were applied.

#### **3.11.1 Qualitative Data Analysis and Presentation**

Qualitative data obtained was analyzed using content analysis (Clarke & Braun, 2013). This is an analytic technique used with qualitative data. It is a method for identifying, analyzing and reporting patterns within data. It entails perusing through the collected data and identifying information that is relevant to the research objectives. It also involves coding of data, highlighting key quotations or insights and interpretations, placing together all materials relevant to a certain topic and finally developing a summary report identifying major themes and the associations between them (Kivunja & Kuyini, 2017). Hence, the notes taken in the course of the interview were read through and common themes emerging from the responses given highlighted. These were discussed and matched with the theories on human resource management in the study (Nguyen, 2019). The qualitative findings generated were presented using direct quotes or in a narrative

form in some cases. Others were summarized and presented in tabular form for easier reference.

### **3.11.2 Quantitative Data Analysis and Presentation**

Quantitative data is commonly presented by use of frequency tables, graphs, pie-charts and frequency polygons (Ørngreen & Levinsen, 2017). Interpretation is the process of making inferences and drawing conclusions concerning the meaning and implications of a research investigation (Caruth, 2013). The quantitative data collected was processed and organized for statistical analysis. First, the responses from the questionnaire were coded, tabulated and then the researcher performed several statistical computations. The demographic characteristics of the respondents were summarized using frequencies and percentages. Descriptive statistics comprising of means and standard deviation were then computed for all variables so as to summarize and describe the data collected. This helped in determining the extent different HRM practices had been adopted and also the level of academic performance in the sampled schools.

Inferential analysis was afterwards undertaken and computations were used to make conclusions and generalizations about the schools based on data collected from the sample. Pearson correlation coefficients were used to assess the nature of the association or correlation between HRM practices and academic performance of secondary schools in Machakos County. The strength, direction and significance of the associations between these variables was determined. Cooper and Schindler (2011) note that Pearson correlation coefficient a popular measure of correlation for descriptive studies. It is most



commonly used in linear regression and is a measure of the strength of the association between two variables.

The computation of a correlation coefficient yields a statistic that ranges from -1 to 1. The correlation coefficient informs one about the magnitude and direction of the association between two variables and the higher the coefficient the stronger the association. If the correlation is (+), it means there is a positive relationship between the two and vice versa. The significance of the correlation was assessed at the 95% confidence level or the 0.05 significance level (probability value). The rule of the thumb was that a calculated p value less than the critical p value of 0.05 for this study implied that the correlation between the variables was significant and vice versa.

Regression analysis was then done in order to determine the effect that each of the variables under study had on academic performance of secondary schools in the County. Both bivariate and multiple regression analyses were conducted. Bivariate regression analysis was done to see the individual influence of each HRM practice on academic performance of these schools since effectiveness of each HRM practice in influencing academic performance of secondary schools when assessed individually was quite different. A multiple regression analysis was on the other hand was done to find out influence independent variables on the academic performance of secondary schools in Machakos County.

The significance of the regression coefficients (beta coefficients) computed was determined by checking the associated p value. A regression coefficient with a p value of less than 0.05 indicated that the variables (independent variables) significantly influenced

the dependent variable. This was crucial in testing the research hypotheses. Amadi and Ezeugo (2019) used a regression model previously in a study which investigated the impact of HRM practices on organizational performance in Debre Brehan University. Sahar (2013) also used the same model to test the influence of human resource management practices on the performance of teachers in catholic sponsored schools in Pakistan.

The regression equation is as shown;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

$$Y_1 = \beta_0 + \beta_1 X_1 + e$$

$$Y_2 = \beta_0 + \beta_2 X_2 + e$$

$$Y_3 = \beta_0 + \beta_3 X_3 + e$$

$$Y_4 = \beta_0 + \beta_4 X_4 + e$$

Where:

$Y$  = is the dependent variable which is a measure of academic performance of secondary schools in Machakos County for all the HRM practices under study

$Y_1, Y_2, Y_3, Y_4$  = dependent variables which are measures of academic performance of secondary schools in Machakos County for each HRM practice.

$X_1$  = Teaching staff recruitment and selection

$X_2$  = Teaching staff training and development

$X_3$  = Teaching staff compensation

$X_4$  = Teaching staff safety

$\beta_1, \beta_2, \beta_3,$  and  $\beta_4$  = Beta coefficients for each of the four independent variables

$\beta_0$  = Constant Term

$\varepsilon$  = Error term

The moderating effect of school infrastructure on the relationship between the independent variables and the dependent variable, performance of secondary schools in the County was tested using stepwise regression analysis proposed by Snyder (2019). f Step one tested the influence of the composite of the dependent variables on the dependent variable. The composite value was determined by undertaking an overall mean score of all the individual mean of responses for all the HRM practices.

$$Y = \beta_0 + \beta_1 X + \varepsilon \dots\dots\dots \text{(Model specified for under Step 1)}$$

In the step two, the influence of predictor variables (composite of HRM practices and school Infrastructure) on the dependent variable (academic performance of secondary schools in Machakos County) was tested.

$$Y = \beta_0 + \beta_1 X + \beta_2 M + \varepsilon \dots\dots\dots \text{(Model specified under Step 2)}$$

In step three, an interaction term (computed as the product of standardized values for composite of HRM practices and school infrastructure) was introduced and its influence on the academic performance of the schools tested.

$$Y = \beta_0 + \beta_1 X + \beta_2 M + \beta_3 X * M + \epsilon \dots\dots\dots \text{(Model specified under Step 3)}$$

Where;

Y is the Academic performance of secondary schools in Machakos County

X is Composite for all the independent variables (HRM Practices)

M = School infrastructure (Moderating Variable)

X\*M = Moderator multiplied by the composite for all the independent variables  
(Interaction)

$\epsilon$  = Error term

Moderation was established if the influence of the composite of HRM practices, school infrastructure and interaction term on the academic performance of the secondary schools in step three was significant. The main software used in analyzing the quantitative data was the statistical package for social sciences (SPSS). The findings were presented by use of charts and tables.

### **3.11.3 Diagnostic Tests**

Some diagnostic tests were done before the estimating the model in order to in check whether the assumptions of the ordinary linear regression model were met or not. This assisted in reducing the risks of obtaining biased, inefficient, and inconsistent parameter estimates.

#### **3.11.4 Normality Test**

Multiple linear regression assumes that study variables have normal distributions since variables with substantial outliers can distort relationships and significance tests (Nguyen, 2019). Thus, it is assumed that errors are normally distributed for any combination of values on the predictor variables (Uyanık & Güler, 2013). Therefore, the normality tests were conducted in order to check whether the data on teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation, teaching staff safety, school infrastructure as well as the academic performance of secondary schools in Machakos County were drawn from a normal distribution. This was necessary in order to ensure that there were no outliers that were likely to distort relationships and significance tests as this would affect the accuracy of inferences made. The normality of data was tested using the Kolmogorov-Smirnov test. The rule of the thumb was that the null-hypothesis of a normal distribution should not be rejected when the Kolmogorov-Smirnov p-values for the study variables were greater than 0.05.

#### **3.11.5 Multicollinearity Test**

Multicollinearity is a condition in which the independent variables are highly correlated ( $r=0.8$  or greater) such that the effects of the independent variables on the outcome or dependent variable cannot be separated (Daoud, 2017). The assumption of the ordinary linear multiple regression is that the dataset does not suffer from multicollinearity, that is, the independent variables are not highly correlated with each other (Kraha, Turner, Nimon, Zientek & Henson, 2012). Hence, the purpose of conducting a multicollinearity

test in this case was to determine if the independent variables were strongly correlated or not since when these variables are strongly correlated, it is difficult to predict the effect that a particular independent variable has on the dependent variable (Zainodin, Noraini & Yap, 2011). A Variance Inflation Factor (VIF) test was therefore be conducted where a VIF value of 1 indicated no correlation between predictor variables, a value of between 1 and 5 indicated moderate correlation while a VIF value above 5 indicated that independent variables were strongly correlated.

### **3.11.6 Linearity Test**

Assumptions of ordinary linear regression are that there must be a linear relationship between the outcome or dependent variable and the independent variables (Kelley & Bolin, 2013). If the relationship between the two variables is not linear, the results of the regression analysis will underestimate the true relationship. Thus, the linearity test was conducted to determine if the relationship between the given independent variables and the dependent variable was linear or not. This was crucial because standard multiple regression can only accurately estimate if the relationships are linear in nature (Ørngreen & Levinsen, 2017). Scatter plot diagram were considered in this case where for variables to have a linear relationship, the data distribution should show a linear trend with a roughly constant variance.

### **3.12 Ethical Considerations**

The integrity, reliability and validity of research findings rely heavily on adherence to ethical principles (Snyder, 2019). Regardless of the type of research, the researcher should take into consideration both general research principles and those that are more specific

to the type of research (Mohajan, 2018). The major ethical issues considered when carrying out this study are discussed as follows:

### **3.12.1 Voluntary and Informed Consent**

According to Nelson, Beauchamp, Miller, Reynolds, Ittenbach, and Luce (2011), an individual taking part in the study should knowingly, voluntarily and intelligently, and in a clear and manifest way, give their consent. Free and informed consent needs to incorporate an introduction to the study and its purpose as well as an explanation about the selection of the research subjects and the procedures that will be followed. It is essential to describe any physical harm or discomfort, any invasion of privacy and any threat to dignity as well as how the subjects will be compensated in that case. In addition, the subjects need to know any expected benefits either to the subject or to science by gaining new knowledge.

The respondents were issued with and taken through a participant information sheet that detailed the purpose, procedures, benefits and risks of the research among other details as shown in Appendix I. Afterwards, having understood the details of the study, the respondents were presented with consent form for which they signed voluntarily. The consent form is given in Appendix II.

### **3.12.2 Confidentiality and Anonymity**

The issue of confidentiality and anonymity is closely connected with the rights of beneficence, respect for the dignity and fidelity (Fouka & Mantzourou, 2011). Anonymity is protected when the study participant's identity cannot be linked with personal

responses. If the researcher is not able to promise anonymity, they have to address confidentiality, which is the management of private information by the researcher in order to protect the subject's identity. It is advocated by Christensen, Johnson, Turner, and Christensen (2011) that confidentiality means that individuals are free to give and withhold as much information as they wish to the person they choose. The authors argue that the researcher is responsible to maintain confidentiality that goes beyond ordinary loyalty.

In this study, the identity of the participants by their names was not revealed throughout the research process as they gave their responses anonymously. Randomly generated numbers were used as identifiers when cross checking the questionnaires. Anonymity of responses ensured that the respondents were able to provide the required information without fear which also enhanced the trustworthiness of the researcher. To ensure confidentiality, the study participants were given the freedom to provide the information they felt comfortable to share and this information was strictly used for academic purpose.

### **3.12.3 Respect for Privacy**

Snyder (2019) holds that an invasion of privacy happens when private information such as beliefs, attitudes, opinions and records, is shared with others, without the individual's knowledge or consent. In this study, it was ensured that whenever the study participants felt that some information required was invasion of their privacy especially during the interviews, their views were respected.



#### **3.12.4 Data Protection**

Research information given by the respondents must be protected. According to Agoi (2017), data obtained from respondents must be secure and well kept. The data may be personal data, personal facts and personal opinions. Data protection in research is very crucial for it involves the regulations for processing personal information. Data protection aims at guaranteeing the individual's right to privacy (Kivunja &Kuyini, 2017). In this study, the data obtained was stored in a computer and password used when accessing the data files. Only authorized persons (mainly the research assistants) were allowed to access the data files.

## **CHAPTER FOUR**

### **DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter provides the findings of this study and their interpretation. Discussion of the findings is also undertaken in relation to that of existing related studies. The organization of the chapter is guided by the specific study objectives. For the qualitative data, content analysis was conducted while both descriptive analysis and inferential and regression analysis were done to analyze quantitative data. The results are presented in tables, charts, narratives and direct quotes.

#### **4.2 Response Rate**

A total of 201 questionnaires were administered to principals drawn from public and private secondary schools in Machakos County. Out this number, 151 questionnaires were adequately completed and returned. This yielded a 75.12% successful response rate. For the interviews, a 100.00% successful response rate was attained as all the 6 key informants selected for the study were successfully interviewed. This response rate was considered adequate for data analysis and reporting in line with Caruth (2013) who argued that though 50.00% was regarded as an acceptable response rate, response rates of 60.00% or more were both desirable and achievable as they reduced the probability of statistical biases.

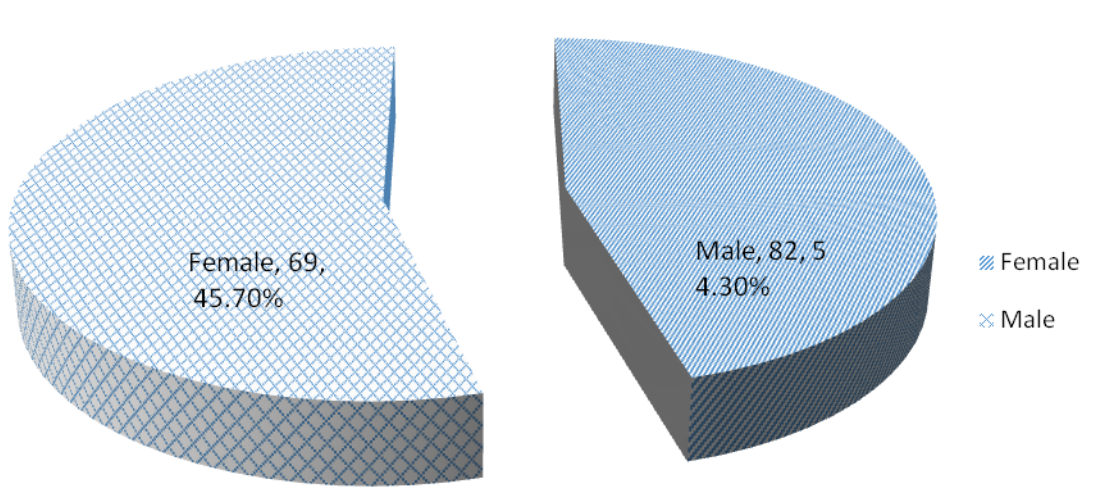
#### **4.3 Background Information of the Respondents**

This sub-section presents information that is related to the basic characteristics of the respondents. Their gender, age, highest level of education and the period they had worked

as principals in the current schools are discussed. The category, type and location of the schools where the principals were stationed are also given.

#### 4.3.1 Gender of the Respondent

The gender of the principals who took part in this study was determined. The findings presented in Figure 4.1 revealed that 82 (54.30%) of the principals were Male while the rest, 69 (45.70%), were Female.



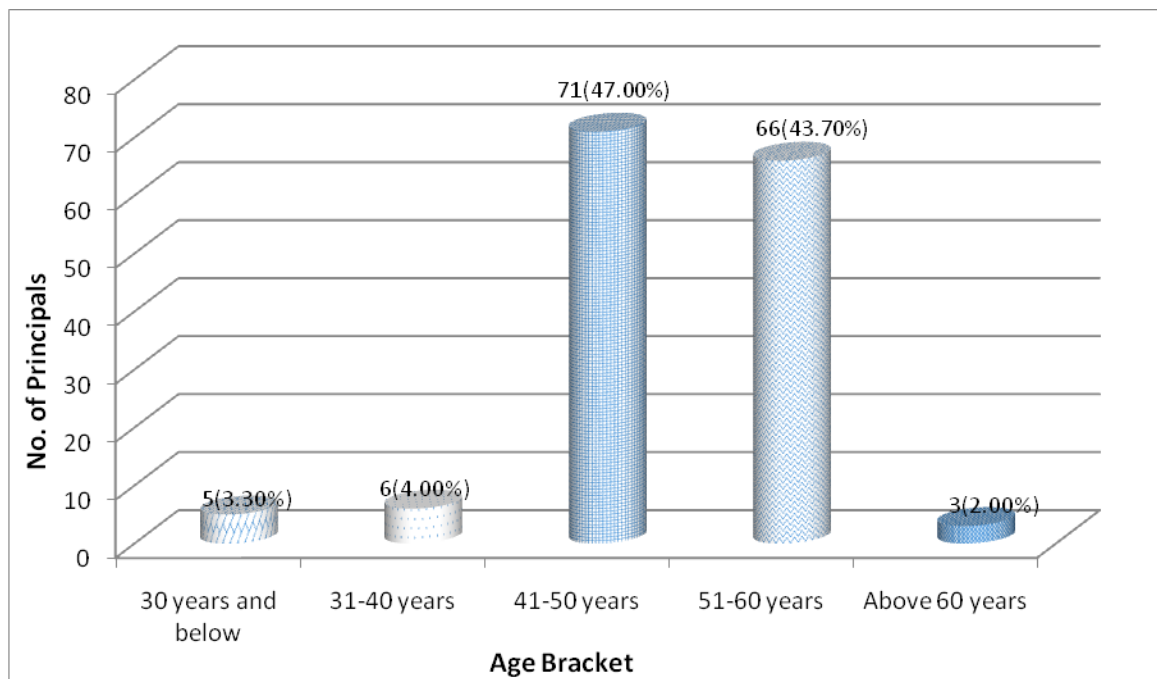
**Figure 4.1: Gender of the Respondents**

Taking into consideration the gender of the principals was necessary. The gender representation shows that 45.70% were female and 54.30% were male. This shows that there are more males than female. This is a good distribution and in line with the requirements of the Kenya Constitution (2010) which requires that no one gender should take up more than two thirds of employment positions in public and private institutions. Gender was likely to impact the effectiveness of the principals in discharging their roles as school administrators which also impacted academic performance in the schools. In

their study, Jamil, Ramzan, Atta, Younis, Kareem, and Jan (2012) observed that gender of school heads differently impacted performance outcomes due to differences in efficiency and also the leadership/management styles adopted.

#### 4.3.2 Age of the Respondents

The age bracket of the principals was also investigated and the results are provided in Figure 4.2. The findings showed that 5 (3.30%) of the principals were aged 30 years and below, 6 (4.00%) were aged 31 to 40 years, 71 (47.00%) were in the age bracket of 41 to 50 years while 66 (43.70%) and 3 (2.00%) of the principals were aged 51 to 60 years and above 60 years respectively.

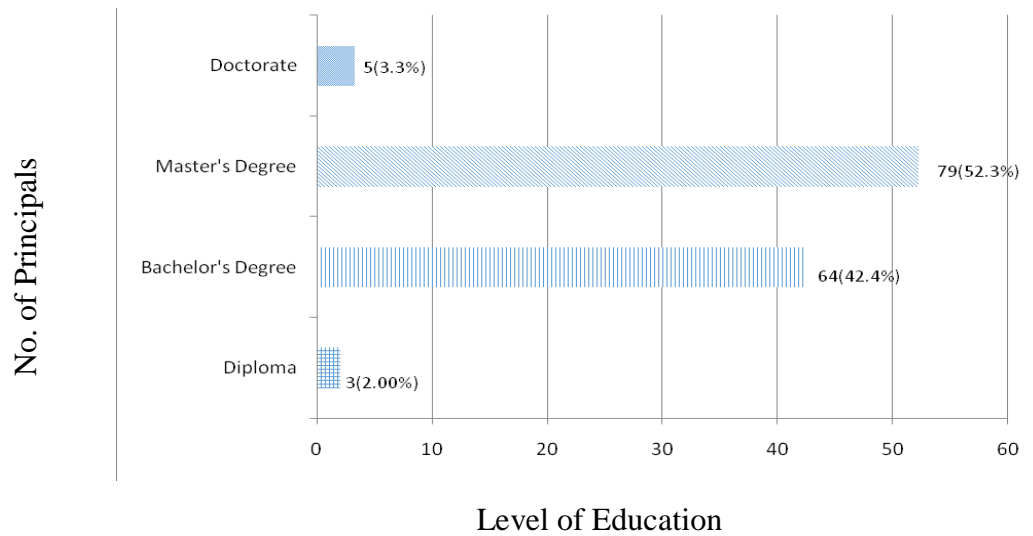


**Figure 4.2: Age of the Respondents**

The findings given in Figure 4.2 demonstrate that a majority of the sampled schools were headed by relatively older individuals. Examining the age of the principals in this study was crucial. This is because age is regarded as a crucial resource as with age, comes experience which is likely to affect principals' performance and that of their schools in general. The study by Maforah (2015) on secondary schools' principals and their job satisfaction highlighted that age positively affected principals' performance. The study also noted that most principals preferred not leaving or changing their professions and hence, they usually kept their jobs till retirement. For instance it was observed that, the principals in the top performing public and private schools were in the age category 51-60 years.

#### **4.3.3 Highest Level of Education of the Respondents**

The study also assessed the highest level of education attained by the principals. The findings presented in Figure 4.3 show that 3 (2.00%) of the principals had obtained a diploma certificate, 64 (42.40%) had a bachelor's degree, 75 (52.30%) of the principals had obtained a master's degree while the rest, 5 (3.3%) indicated that they were educated upto the doctorate level.



**Figure 4.3: Highest Level of Education of the Respondents**

The findings provided in Figure 4.3 meant that the respondents, principals of schools in the County had at minimum, obtained a Bachelor’s Degree in Education and hence, they had the necessary qualifications that made them not only capable principals but also capable teachers. Having the necessary educational qualifications was considered a fundamental characteristic of a secondary school administrator to enable them perform their duties effectively and take the schools into high performance levels (Mugambi, 2015). It can therefore, be inferred that all the principals had the required professional qualifications that enabled them to head the secondary schools.

#### **4.3.4 Year of Graduation from University**

The principals’ year of graduation from the university was assessed and the findings are presented in Table 4.1. The findings revealed that 13 (8.61%) of the principals graduated between the year 1980 and 1989, 65 (43.05%) graduated between the year 1990 and

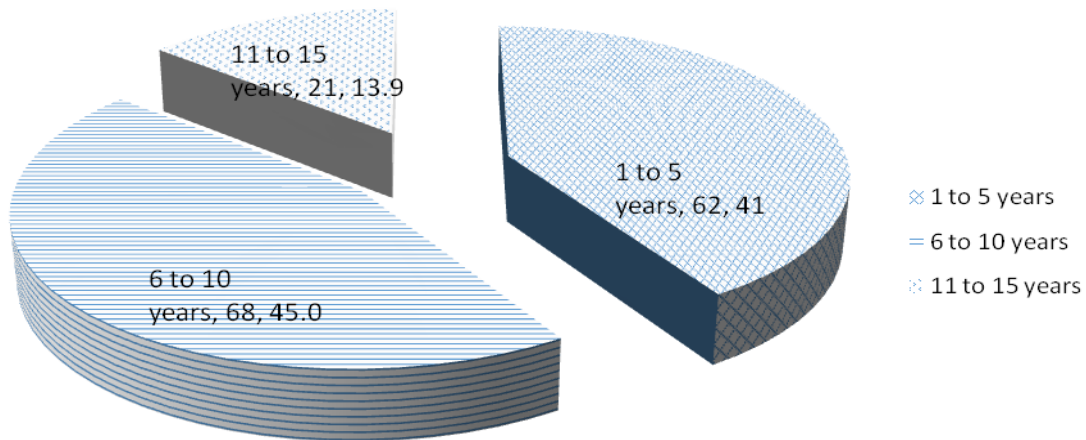
1999, 28 (18.54%) graduated between 2000 and 2009 while 36 (23.84%) of the principals graduated from university between the year 2010 and 2019. The rest, 9 (5.96%) did not specify the year they had graduated from university.

**Table 4.1: Year of Graduation from University**

<b>Year of graduation</b>	<b>Frequency</b>	<b>Percentage</b>
1980-1989	13	8.61
1990-1999	65	43.05
2000-2009	28	18.54
2010-2019	36	23.84
Did not specify	9	5.96
<b>Total</b>	<b>151</b>	<b>100.0</b>

#### **4.3.5 Period of Working as a Principal**

The principals were asked to indicate the number of years they had worked in the schools they were currently posted in. The findings are provided in Figure 4.4. The findings demonstrate that 62 (41.10%) of the principals had worked in these schools for between 1 to 5 years, 68 (45.00%) had worked in the schools for between 6 to 10 years while the rest, 21 (13.90%), noted that they had been principals in the current schools for between 11 to 15 years. The principals who had been in the present school for between 1 to 5 years seemed to post better results.



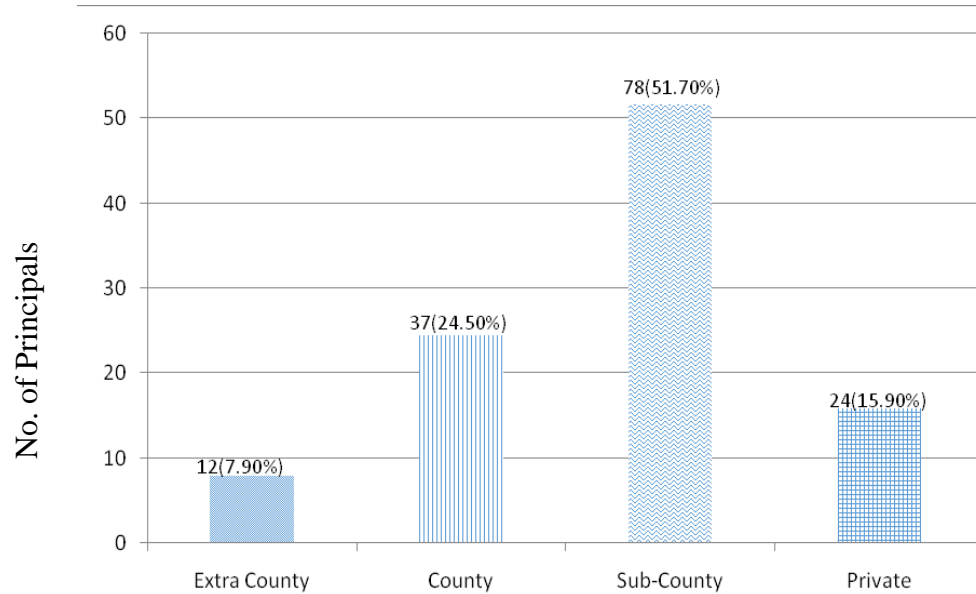
**Figure 4.4: Period of Working as a Principal**

The findings pre reflected by their level of training and experience will determine the quality of grades attained in an examination.

#### **4.3.6 Category of School**

The findings presented in Figure 4.5 show the category of school where the sampled principals were drawn from. The findings reveal that 12 (7.90%) of the principals were heading extra county schools, 37 (24.50%) were from county schools, 78 (51.70%) headed sub county schools, while the rest of the principals, 24 (15.90%), were heading private schools.





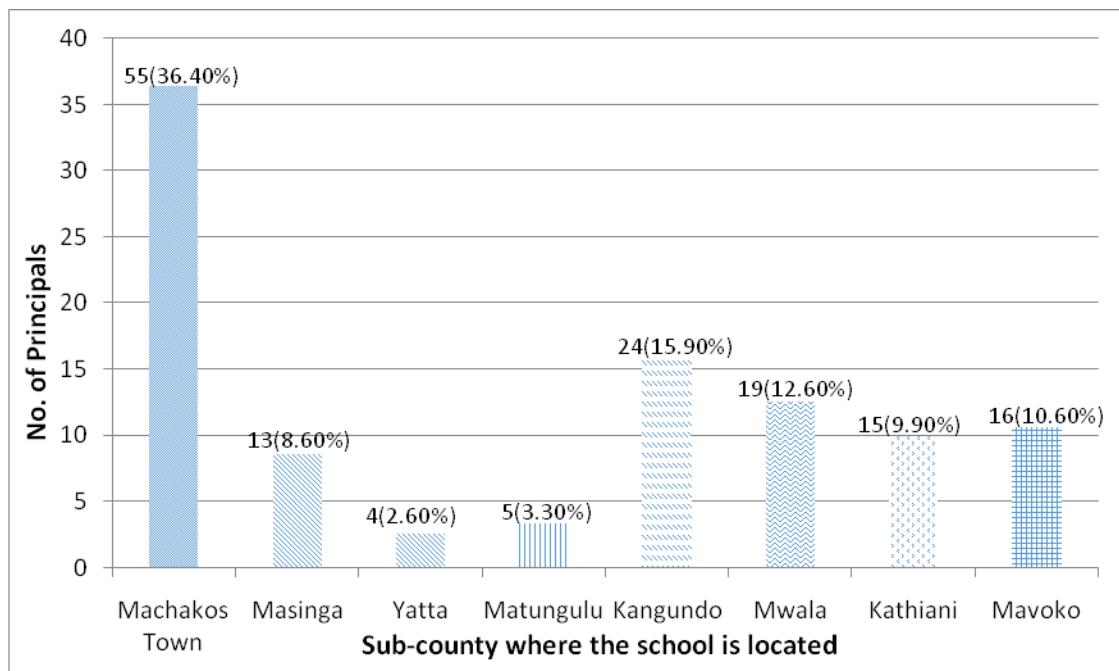
**Figure 4.5: Category of School**

The findings provided in Figure 4.5 imply that the views of principals from different categories of schools in Machakos County were considered in this study. This was necessary since the conduciveness of learning environment was likely to vary significantly across these categories of schools triggering variation in academic performance of the schools as well. According to Kumwenda et al.(2018), school type of a child attends affects accademic outcomes.

#### **4.3.7 Sub-County where the School is Located**

The sub counties where the schools considered in this study were located are as shown in Figure 4.6. It was found that 55 (36.40%) of the schools considered were based in Machakos Town Sub County, 13 (8.60%) were located in Masinga Sub County, while 4 (2.60%) and 24 (15.90%) of the schools were located in Yatta and Kangundo Sub

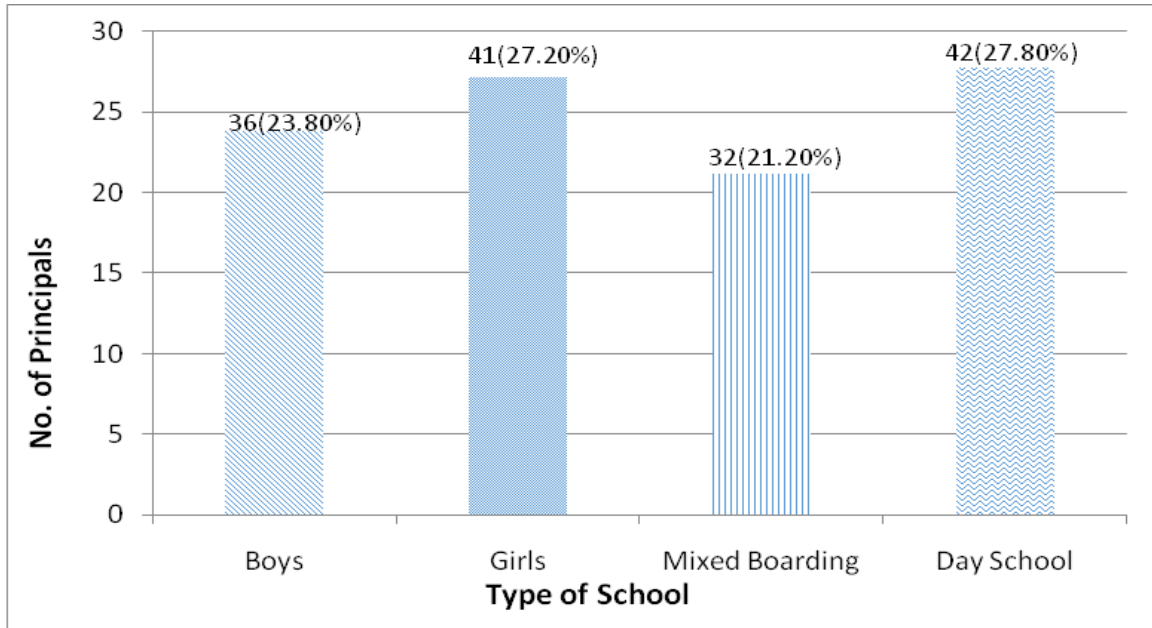
Counties respectively. The findings also show that 19 (12.60%) of the schools were located in Mwala Sub County, 15 (9.90%) were based at Kathiani Sub County while the rest of the schools considered, 16(10.60%), were located in Mavoko Sub County. Hence, it can be inferred that the views of principals drawn from schools in all the sub counties in Machakos County were considered in this study.



**Figure 4.6: Sub-County where the School is Located**

#### 4.3.8 Type of School

The results presented in Figure 4.7 show that 36 (23.80%) of the sampled principals were drawn from boys' schools, 41 (27.20%) were heading girls' schools, 32 (21.20%) of the principals indicated that they were school heads of mixed boarding schools, while the rest of the principals, 42 (21.20%), headed day schools.



**Figure 4.7: Type of School**

The findings provided in Figure 4.7 imply that the views of principals from the different types of schools in Machakos County were taken in to account. This was necessary since there were situational factors that influence academic performance of students. Mburu (2013) revealed that the academic performance of students in single sex schools was better than that of students in mixed schools more so when gender differences were considered. The study also found that teachers had also developed a negative attitude towards mixed schools and most of them were in favour of single sex schools. Only a few teachers preferred to teach in mixed boarding and mixed day schools.

#### **4.3.9 Summary of Demographic Characteristics of Key Informants**

The results presented in Table 4.2 summarize the information related to the demographic characteristics of the key informants. The KIs were drawn from the 2 national schools, 2 top performing and bottom 2 low performing secondary schools in Machakos County. The findings show that four (4) of the key informants were male, the rest were female. A majority of the KIs, 5 (83.33%) were aged 50 years and above and had good results. The findings also reveal that two (2) of the KIs had obtained a Bachelor's Degree in Education, three (3) had a Master's Degree in Education while one of them was pursuing doctorate studies. Four of the key informants were found to have served as principals for 10 years, one had experience of 18 years as principal while the other had been a principal for 30 years. The KIs also taught different subjects. This indicated that they were role models and could deal directly with issues of academic performance.

**Table 4.2: List of Participants: In-depth Interviews**

No .	Participant	Gender	Age	Level of Education	Year of graduation	Number of years as principal	Subjects Taught	Category of School
1	KI 1	Female	52	Doctorate	Ongoing	18 years	English, CRE	Private Catholic Sponsored
2	KI 2	Female	50	Masters in Education	2013	10 years	History, CRE	National School
3	KI 3	Male	55	Masters in Education	1985	30 years	Chemistry, Physics	National/ DEB
4	KI 4	Male	50	Masters in Education	2008	10 years	Biology, Chemistry	Private
5	KI 5	Male	45	Bachelors in Education	1994	10 years	Mathematics, Physics	Private
6	KI 6	Male	50	Bachelors in Education	1990	10 years	Geography, Physics	Private

#### 4.4 Descriptive Analysis

This section presents the descriptive statistics for the independent variables and the dependent variables. The mean responses for the different statements (items) in all the constructs were interpreted using a scale interval where a mean value of (1.000-1.499) indicated strongly disagree, (1.500-2.499) indicated disagree, (2.500-3.499) indicated neither agree nor disagree, (3.500-4.499) indicated agree while (4.500-5.000) was an indication of strongly agree.

#### **4.4.1 Teaching Staff Recruitment and Selection**

One objective was to establish the effect of teaching staff recruitment and selection on academic performance of secondary schools in Machakos County. The recruitment and selection practices of teaching staff in the selected schools were explored and the findings obtained are discussed in the following subsections: -

##### **4.4.1.1 Aspects of Teaching Staff Recruitment and Selection**

The construct for recruitment and selection of teaching staff comprised of five (5) items. The principals were asked to respond to the various statements based on a Likert scale ranging from 5=strongly agree to 1=strongly disagree. The findings are outlined in Table 4.3. The findings showed the principals on average, agreed that candidates applying for teaching positions in their schools were selected on the basis of their skills and qualifications given a mean of 4.073 and a SD of 1.046. The study results also revealed that on average, the principals agreed that vacancies notification in their schools were always open for all as supported by a mean of 4.086 and a standard deviation of 1.154 and that the recruitment and selection process in their schools led to employment of competent teaching staff as shown by a Mean of 4.139 and a standard deviation of 0.931.

The study results further indicated that the principals on average, agreed that their schools had policies which guided the interview process during the recruitment of teaching staff at a mean of 4.305 and a standard deviation of 0.885 and also that the selection of teaching staff in their schools were undertaken based on merit as supported by a mean of 4.377 and a standard deviation of 0.885. The composite mean of responses

of 4.196 implied that the principals, on average, were agreeing with most of the statements presented to them on recruitment and selection of teaching staff. Given that the overall standard deviation (0.852) for the construct was less than the mean, this meant that on average, the responses of the principals though varied, were closely clustered around the mean.

**Table 4.3: Aspects of Recruitment and Selection of Teaching Staff**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
Candidates applying for teaching positions in this school are selected on the basis of their skills and qualifications.	151	4.073	1.046
Notification of teaching vacancies in this school is always open for all.	151	4.086	1.154
The recruitment and selection process in this school leads to employment of competent teaching staff.	151	4.139	0.931
The school has a policy which guides the interview process during the recruitment of teaching staff.	151	4.305	0.959
Selection of teaching staff in this school is undertaken based on merit.	151	4.377	0.885
<b>Composite Mean and Standard Deviation</b>		<b>4.196</b>	<b>0.852</b>
<b>Valid N</b>	<b>151</b>		

The findings shown in Table 4.3 imply that the sampled secondary schools ensured that their teachers were selected on merit, there were established policies to guide the recruitment of these staff were in place and also made sure that competent staff were employed at the end of the recruitment and selection processes. These schools also to a large extent recruited the teaching staff based on the basis of their skills and qualifications and made notification of teaching vacancies open for all. It can therefore be inferred that, schools considered were committed to recruiting and selecting deserving teaching staff who were not only skilled and qualified, but also competent to undertake their duties. They were also cognizant of the importance of a policy to guide the recruitment and selection process and made efforts to ensure that this process was fair by making notifications for teaching vacancies open for all.

The findings of this study were in line with the assertions of Thiriku and Were (2016) that the need for interviews was to attain the best workforce with appropriate qualities, skills, knowledge. The findings were also consistent with the arguments of Midiwo (2016) that the best candidates should be selected. Results obtained further agreed with the recommendations by Ayanda and Sani (2011) that staff recruitment should be based on merit and that a capable workforce is required, and such a workforce can only be obtained through proper recruitment and selection procedures. The study findings further supported the views of Omisore and Okofu (2018) that the most qualified, technically sound, disciplined and committed human resource should be recruited to help organizations achieve their objectives.



#### **4.4.1.2 Influence of Recruitment and Selection of Teaching Staff on Academic Performance**

The principals' opinion on whether the practices and procedures employed in the recruitment and selection of teaching staff in their schools influenced the academic performance in their schools was also sought. It was established that a majority of the principals, 128 (84.80%), noted that the level of academic performance in their schools was influenced by the recruitment and selection of teaching staff. The rest of the principals, 23 (15.20%) held the view that teaching staff recruitment and selection did not influence the academic performance in their schools. The ways through which the recruitment and selection of teaching staff affected academic performance in the sampled schools as highlighted by these principals are outlined in Table 4.4. According to 121 (94.53%) of the principals, the selection and recruitment of competent teaching staff supported quality teaching since such teachers had adequate knowledge and skills and also had good mastery of content. Competent and experienced teachers selected on the basis of their skills were found to have sound knowledge on their subjects and hence, as noted by 109 (85.16%) of the principals, improved and timely syllabus coverage was enhanced.

The study also found that 97 (75.78%) of the principals stated that competent teaching staff displayed efficiency, dedication and good will in teaching so that students can perform. Competitively recruited staff had the confidence required to adequately guide learners, they consistently produced desirable results and also worked under minimal supervision as observed by 81 (63.28%), 68 (53.13%) and 79 (61.72%) of the principals respectively. The study further established that 75 (58.59%) of the principals believed

that competitively selected and recruited teachers were hard working and self-motivated to deliver while others, 44 (34.38%) of the principals stated teachers recruited following the right process were morally upright and were responsible to the society leading to enhanced academic performance.

**Table 4.4: Influence of Recruitment and Selection of Teaching Staff on Academic Performance**

<b>Highlighted ways</b>	<b>Frequency</b>	<b>Percent</b>
Selection of competent teachers supports quality teaching due to adequate knowledge, skills and mastery of content.	121	94.53
Selection of competent teachers led to timely syllabus coverage.	109	85.16
Efficiency, dedication and good will in teaching so that students can perform.	97	75.78
Competent teachers have the confidence to properly guide students.	81	63.28
Competitively recruited staff work under minimal supervision	79	61.72
Competitively recruited staffs are hard-working and self-motivated to deliver.	75	58.59
Experienced teachers consistently produce satisfactory results.	68	53.13
Teaching staff recruited following the right process have moral conduct and are responsible to the society.	44	34.38

The findings show that the recruitment and selection of teaching staff affected the academic performance of the sampled secondary schools in various ways from the perspective of the principals. Schools that selected competent teachers through a competitive recruitment process reaped the benefits of quality teaching as well as improved and timely syllabus coverage which ultimately resulted to consistent remarkable academic results. Teaching staff who were competent could confidently guide students, they efficiently carried out their duties with dedication and were hard working and self-motivated to deliver. Hence, the process of recruiting and selecting teaching staff in the sampled secondary schools could not be ignored in the quest for attaining improved academic performance in these schools.

The findings of the study supported the observations by Ofori and Aryeetey (2011) that proper recruitment process led to selection of the right candidates who were able to carry out their tasks. The results were also consistent with that of Priya and Sundaram (2016) who argued that effective recruitment and selection strategy enabled an organization to maintain a committed and motivated workforce that was productive and ensured quality in the products and services offered by the organization. The study results were further aligned to the recommendations of Omisore and Okofu (2018) that the recruitment of staff that were most qualified, disciplined and also committed was necessary for the realization of organizational objectives. The findings further agreed with the views of Selase (2018) that the productivity of a workforce depended on genuine recruitment process that was also emphasized by Wambua and Genga (2018) who argued that adherence to proper staff recruitment was a source of motivation for staff.

#### **4.4.1.3 Key Informants Responses on Influence of Recruitment and Selection of Teaching Staff on Academic Performance**

The responses of the key informants as to whether recruitment and selection of teaching staff influenced academic performance are also provided. Two of the KIIs (KI 1 and KI 4) noted that this HRM practice influenced academic performance. According to KI 1, the school being private, was committed to recruiting competent and qualified teachers who had mostly obtained an undergraduate degree or a master's degree. They were keen on having hardworking teachers who could deliver quality results. In her words, this key informant argued that: -

*“We do not recruit untrained teachers; we recruit mostly undergraduate and master's degree holders. We instill the spirit of hard work among teachers and even though we encourage overstay, we do not tolerate lazy teachers. We normally fire such teachers immediately.” KI 1*

The KI on his part asserted that their school being private normally employed the best and individuals who were willing to work and learn. The qualifications of the recruited teachers ranged from Diploma in Education to Masters of Arts in Education. On the other hand, KI 2, KI 3 and KI 5 argued that the recruitment and selection of teaching staff may or may not influence academic performance where KI 2 observed that some recruits particularly young graduates did not show commitment in their work as they were simply looking for employment by the government in public schools.

*“Most young graduates are simply looking for employment and hence, lack commitment. They do not commit over time to assisting students. It is a myth to say that graduates will offer the best. Diploma teachers are more committed” KI 2*

Noting that all teachers whether diploma holders or master's holders were qualified and that performance depended on the dedication and commitment of the teachers, KI 3 argued that;

*“Diploma teachers yield better grades; they are more committed than most of those with a master’s degree. We recruit as per the TSC policy of the most qualified but once on the ground, we see dedication even from the ones with least qualifications” KI 3*

Echoing the sentiments of KI 3, KI 5 asserted that;

*“We offer jobs to those seeking for employment. Most of the recruits hold a bachelors’ degree in education but fail to deliver or do not produce quality results.”*

From the responses given, KI 6 believed that recruitment and selection of teaching staff did not influence academic performance in schools especially in private schools. According to them, they always thought they had recruited the best but unfortunately, this did not translate to good results. These findings suggested that the recruitment and selection of teaching staff by secondary schools was necessary though not sufficient to yield the academic performance desired by the schools’ management. Thus, for competent and qualified teachers to produce good results, they had to be committed and dedicated to their work.

These findings are in line with the conclusion of the study by Nyoni et al.(2017) that recruiting highly educated staff requires that managers attend to other HR issues more carefully as well. According to these authors, hiring educated staff does not necessarily result to better staff job performance since staff with higher education may become over-confident about their skills and therefore, take some tasks less seriously while those with less education may be more motivated to take advantage of their job opportunity and thus, give their all in their activities. The results were also consistent with the recommendation by Keinan and Karugu (2016) in their study on recruitment, selection and placement of teaching staff in institutions of learning that teaching certifications obtained by recruits should not be the only emphasis as most individuals with the

qualifications were underperforming. Rather, interest and experience should play a major role as such people can go for on the job training to enhance their skills.

#### **4.4.1.4 Other Aspects of Recruitment and Selection of Teaching Staff Practiced**

The other aspects of staff recruitment and selection practiced in the sampled schools and which influenced academic performance as mentioned by the principals are presented in Table 4.5. The study findings presented in Table 4.5 show that 115 (76.16%) of the principals noted the selection of teaching staff based on experience, 79 (52.32%) mentioned direct sourcing of teaching by management instead of advertising, 72 (47.68%) observed that in their schools, recruits were interviewed on subject content grounds while 67 (44.37%) and 64 (42.38%) of the principals asserted that previous performance and greater consideration of BOM teachers were some of the staff recruitment and selection practices employed in their schools respectively.

Those who reported that their schools considered the history of the schools where the recruits taught were 61 (40.40%). Approximately 54 (35.75%) of the principals indicated that recruitment in their schools was based on referral networks or word of mouth, 50 (33.11%) mentioned that departmental heads and subject specialists were involved in the selection panel, 46 (30.46%) pointed out that their schools conducted planned assessment and class observations during the selection process while 43 (28.48%) of the principals stated that consideration of non-academic experience such as attitude and performance in co-curricular activities was a part on their staff selection and recruitment practices.

About 42 (27.81%) of the principals observed that their schools scrutinized the moral conduct of recruit or discipline such as alcoholism history, 35 (23.18%) stated that staff

selection was based on needs assessment, 30 (19.87%) noted that the filling of all the TSC advertised positions in their schools was undertaken as per the set guidelines while 27 (17.88%) and 22 (14.57%) of the principals argued that walk in applications and talents of recruits were considered. The findings also reveal that 21 (13.93%) of the principals reported that their schools emphasized on advertising vacancies widely, 15 (9.93%) noted the consideration of salary demands of recruits during the selection process, 12 (7.95%) underlined the assignment of mentors to new recruits, 7 (4.64%) indicated the deliberate recruitment of young and energetic teachers, 5 (3.31%) mentioned the recruitment of the best regardless of the gender while 4 (2.65%) and 3 (1.99%) of the principals pointed out that faith and period of stay after graduation considerations formed part of their staff selection and recruitment practices.

Based on these findings, it can be argued that apart from ensuring that teaching staff were selected and recruited based on their skills, qualifications, and their competencies and also on merit guided by established policies, the management of the sampled schools considered several other aspects in their recruitment and selection process. The other aspects considered by these schools ranged from the selection of teaching staff based on experience, direct sourcing of teachers by management instead of advertising, interviewing recruits on subject content grounds and considering recruits' previous performance to taking in to account the recruits' talents and period of stay after graduation. Thus, it can be inferred that diverse practices characterized the recruitment and selection of teaching staff in the secondary schools considered in this study.

**Table 4.5: Other Aspects of Recruitment and Selection of Teaching Staff Practiced**

<b>Recruitment and selection of teaching staff practices</b>	<b>Frequency</b>	<b>Percent</b>
Selection based on experience	115	76.16
Direct sourcing by management instead of advertising	79	52.32
Interviewing recruits on subject content grounds	72	47.68
Consideration of recruits previous performance	67	44.37
Greater consideration of board of members (BOM) teachers	64	42.38
Consideration of the history of schools where the recruits taught	61	40.40
Recruitment based on referral networks or word of mouth	54	35.76
Involvement of HODs & subject specialists in the selection panel	50	33.11
Planned assessment and class observations	46	30.46
Consideration of non-academic experience	43	28.48
Moral conduct of recruit or discipline e.g. alcoholism	42	27.81
Selection based on needs assessment	35	23.18
Filling all the TSC advertised position as per the guidelines	30	19.87
Walk in applications	27	17.88
Talent considerations	22	14.57
Advertising vacancies widely	21	13.91
Consideration of salary demands of recruits	15	9.93
Assignment of mentor to new recruits	12	7.95
Deliberate recruitment of young and energetic teachers	7	4.64
Recruiting the best regardless of the gender	5	3.31
Faith considerations	4	2.65
Consideration of period of stay after graduation	3	1.99



#### **4.4.1.5 Ways of Improving Recruitment and Selection of Teaching Staff**

The results presented in Table 4.6 show some of the possible ways of improving recruitment and selection of staff practices in the sampled schools as suggested by the principals. The findings demonstrate that 117 (90.73%) of the principals called for strict recruitment of teaching staff based on experience and qualification, 84 (62.25%) emphasized the need for employing more experienced teachers, 78 (51.66%) of the principals believed that experience and qualification and not years after graduation needed to be considered during the recruitment and selection process while 63 (41.72%) and 60 (39.74%) of the principals considered proper background checks to determine performance of candidates in previous work stations and enhanced integrity and independence in the recruitment process as crucial.

From the findings, 56 (37.09%) of the principals pinpointed the need for allowing longer probationary period for teachers to better understand their teaching methods, 55 (36.42%) believed that extensive advertisement of vacancies when they occur and on time was important, engaging the candidates in the entire recruitment process and not awarding marks based on certificates presented was suggested by 53 (35.10%) of the principals, 45 (29.80%) of them indicated that priority ought to be given on experience in specific subjects while equal number of principals, 44 (29.14%) suggested the allocation of more time for interviewing each candidate to make the process competitive and also hands on observation during interviews.

Other principals, 40 (26.14%) highlighted the consideration of personality and role modelling highlighted, 39 (25.83%) suggested sufficient interviewing process, keeping a database of job seekers for future placement, 31 (20.53%) consideration of teacher ambitions, 25 (16.56%) suggested taking into account the teachers' availability. Another 23 (15.23%) suggested considering candidates who were multi-skilled and with extra courses. 20 (13.25%) adoption of the TSC manual or recruiting as per TSC and BOM guidelines/recruitment policy. The findings also reveal that 18 (11.92%) of the principals suggested the selection of a heterogeneous teaching force (communities and gender), 9 (5.96%) of the principals suggested avoiding nepotism as well as recruiting based on observations made during internship, 7 (4.64%) of the principals suggested involvement of administration in the interview process, Another 4 (2.65%) suggested considering KCSE grade first in teaching subjects and 3 (1.99%) suggested experience not years after graduation, as measures suggested to improve the selection of the teaching staff in the sampled schools.

These findings were a pointer that there were several measures that could be taken by the management of the sampled schools to improve the process of recruiting and selecting their teaching staff in order to enhance academic performance. These improvements largely centred on the strict recruitment of the staff on the basis of their experience and qualification as a suggested by the majority of the principals.

**Table 4.6: Ways of Improving Recruitment and Selection of Teaching Staff**

<b>Possible ways</b>	<b>Frequency</b>	<b>Percent</b>
Strict recruitment on experience and qualification basis	117	90.73
Employment of more experienced teachers.	84	62.25
Consider experience and qualification and not years after graduation	78	51.66
Consider performance of candidates in previous work stations	63	41.72
Integrity and independence in the recruitment process	60	39.74
Allow longer probationary period for teachers	56	37.09
Extensive/timely advertisement of vacancies when they occur	55	36.42
Engage the candidates in the entire recruitment process	53	35.10
Prioritize experience in specific subjects	45	29.80
Allocation of more time for interviewing each candidate	44	29.14
Hands on observation during interview	44	29.14
Personality and role model	40	26.49
Keeping a database of job seekers for future placement	39	25.83
Consider teacher ambitions	31	20.53
Consider availability of the teacher	25	16.56
Consideration of candidates with extra skills/courses	23	15.23
Adopting the TSC manual/ recruitment policy	20	13.25
Selecting a heterogeneous teaching force	18	11.92
Avoid nepotism, embrace competence	9	5.96
Involve administration in the interview process	7	4.64
Consider K.C.S.E grade in teaching subjects	4	2.65
Recruitment based on observation made during internship	3	1.99

#### **4.4.2 Teaching Staff Training and Development**

The study also sought to establish the influence of teaching staff training and development on academic performance of secondary schools in Machakos County.

A series of questions were presented to the principals in relation to this subject and the findings are as presented in the following sub-sections: -

##### **4.4.2.1 Aspects of Teaching Staff Training and Development**

In order to assess the level of teaching staff training and development in the sampled schools, a number of statements relating to this HRM practice were presented to the principals where they were required to state the extent to which they agreed or disagreed with them based on Likert scale which ranged from 1=Strongly disagree to 5=Strongly agree. The mean and standard deviation for each statement were computed and interpreted. The findings are given in Table 4.7. It was found that on average, the principals either agreed or disagreed that the staff training and development opportunities in their schools led to promotions, given mean of responses of 3.212 and a standard deviation of 1.024. Similarly, the principals on average, neither agreed or disagreed their schools had established training and career development policies as supported by mean of responses of 3.291 and standard deviation of 1.011 and whether their schools had diverse in-house training programs for teachers as illustrated by a mean of responses of 3.344 and a standard deviation of 1.020. However, the principals on average, agreed that their school accorded equal training and career development opportunities for all staff members given a mean of responses of 3.828 and standard deviation of 0.823 and also that teachers in their schools were accorded the opportunity to attend workshops,

seminars and conferences to expand their knowledge given a mean of responses of 4.219 and standard deviation of 0.711. The overall mean of responses of 3.579 meant that on average, the principals were agreeing with most of the statements on staff training and development.

**Table 4.7: Aspects of Teaching Staff Training and Development**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
The staff training and development opportunities in this school lead to promotions.	151	3.212	1.024
The school has an established training and career development policy.	151	3.291	1.011
The school has diverse in-house training programs for teachers.	151	3.344	1.02
The school accords equal training and career development opportunities for all staff members	151	3.828	0.823
Teachers in this school are accorded the opportunity to attend workshops, seminars and conferences to expand their knowledge.	151	4.219	0.711
<b>Composite Mean and Standard Deviation</b>		<b>3.579</b>	<b>0.697</b>
<b>Valid N</b>	<b>151</b>		

From the findings given in Table 4.7, it can be noted that the sampled secondary schools were doing well on areas of according teachers the opportunity to attend workshops, seminars and conferences to expand their knowledge and also ensuring that all staff

members were accorded equal training and career development opportunities. However, having established staff training and career development policies, having diverse in-house training programs for teachers and also ensuring that the opportunities for training and development for their teaching staff led to promotions had been moderately emphasized. These findings meant that there were some aspects of staff training and development in the sampled schools that were yet to be optimized.

According to Emmanuel et al. (2013), organizations should train and develop the capabilities of their employees. Mutahaba (2011) also points out that training of employees leads to the acquisition of extra knowledge and hence, once trained, staff have an expectation of being promoted. The above findings agree with that of Kilika et al. (2016) who emphasized that all employees should receive training arguing that at the very least, staff should undergo on the job training.

#### **4.4.2.2 Identification of Training Needs of Teachers**

Information on the ways through which the training needs of teachers were identified was sought from the key informants. From the responses given, the training needs were informed by the feedback from teachers and students, performance gaps identified as well as internal subject meetings, departmental meetings and routine briefs. KNEC trainings and seminars with external examiners were also noted to play a crucial in determining the areas where teachers required further training. The responses given are as follows;

*“Teachers are subject specialists. We identify training needs from departmental meetings and performance gaps. Being a private school, We allow students to communicate deficiencies. We invite external examiners to seminars with teachers and also to talk to students and identify their needs.” KI 1.*

*“We encourage interdepartmental meetings starting from subject level. We encourage openness so that when a teacher requires assistance, peer assistance is available. This is possible because we are a public school with many subject specialists. We hold subjects to departments meetings, training gaps will be identified and dealt with.” KI 2*

*“The school has an open door policy for consultation and a structure of how to go about training. Generally, these needs are identified during internal subject meetings, departmental meetings and briefs, and also during KNEC trainings for teachers which are subsidized by the school. From these, feedback given is acted upon and priority areas identified.” KI 3.*

*“Frequent departmental meetings, feedback from teachers and students, open door policy, benchmarking feedback” Being a private school, we always benchmark from other private schools that do well. KI 4.*

*“Feedback from a few students. We encourage Heads of Departments to hold regular meetings to identify gaps.” KI 5.*

*“We encourage feedback from students and teachers on what can be done to improve performance.” KI 6.*

These findings implied that the training needs of teaching staff in secondary schools in Machakos County were mainly identified by using feedback from consultations with teachers and students and also different internal meetings and routine briefs at the department or subject levels. Performance gaps, various benchmarking studies and interactions with external examiners were also very crucial.

#### **4.4.2.3 Ways in which Staff Training and Development Influenced Academic Performance**

The study found that a majority of the principals, 136 (90.10%), noted that in deed, the academic performance in their schools was influenced by staff training and development. The rest of the principals, 15 (9.90%) stated that this HRM practice did not influence academic performance. The ways through which staff training and development influenced the academic performance in the sampled schools as identified by the principals are shown in Table 4.8. According to 133 (97.79%) of the principals, through staff training and development, teachers were able to acquire more skills and competencies to efficiently do their work and handle student issues. The teachers were also able to familiarize or master content as noted by 130 (95.59%) of the principals. It was also noted by 127 (93.38%) of the principals that trained teachers showed more commitment and resilience in working with slow learners hence drastic performance improvement. Staff training and development was also associated with increased morale, dedication, and confidence in teaching as noted by 121 (88.97%) of the principals. Through this HRM practice, teachers were exposed to different and new teaching methods to deliver content based on student's ability and also emerging issues or dynamics in teaching and student assessment as argued by 119 (87.50%) and 107 (78.68%) respectively.

Teaching staff training and development was found to result to improved ways of preparing testing materials and preparing students for national examinations, enhanced syllabus coverage and enhanced quality of curriculum implementation as stated by 89 (65.44%), 82 (60.29%) and 74 (54.41%) of the principals. The findings also reveal that



71 (52.21%) of the principals indicated that staff training and development led to increased teacher's capacity to develop subject content, 65 (47.79%) noted that the practice increased teachers' personal growth making them more focused on their work, 43 (31.62%) believed that trained teachers had positive attitude towards students while 36 (26.47%) of the principals noted that training and development programs provided a platform for gaining new networks which could facilitate benchmarking. All these resulted to enhanced academic performance.

These findings suggested that the training and development for teaching staff in the secondary schools under study, influenced academic performance by impacting the capacity of the staff to discharge their duties. Exposure to training and development enabled the teachers to acquire more skills and competencies which translated to efficiency in handling tasks and student issues. It also improved the staffs' mastery of content and ways of helping slow learners besides increasing their morale, dedication, and confidence in teaching. The training and development opportunities accorded to teachers were also avenues where diverse and improved methods of delivering content on the basis of student's ability were learned besides exposing the teachers to emerging dynamics in teaching and student assessment among other benefits. It can therefore, be emphasized that training and development of teaching staff was a crucial HRM practice that could be exploited by secondary schools in Machakos County to assist them improve their academic performance.

**Table 4.8: Ways in which Teaching Staff Training and Development Influenced Academic Performance**

<b>Possible Ways</b>	<b>Frequency</b>	<b>Percent</b>
Acquisition of more skills and competencies to efficiently do their work and handle student issues	133	97.79
Content familiarity/mastery of content	130	95.59
Trained teachers have more commitment and resilience to work with slow learners hence drastic performance improvement.	127	93.38
Increased morale, dedication, and confidence in teaching	121	88.97
Exposure to different and new teaching methods to deliver on content based on student's ability	119	87.50
Exposure to emerging dynamics in teaching/student assessment	107	78.68
Improved ways of preparing testing materials and preparing students for national examinations	89	65.44
Enhanced syllabus coverage	82	60.29
Enhanced quality of curriculum implementation	74	54.41
Increased teacher's capacity to develop subject content	71	52.21
Increased teachers' personal growth making them more focused	65	47.79
Positive attitude towards students	43	31.62
Provides platform for new networks for enhanced benchmarking	36	26.47

The above findings agreed with the observations of Ezeani and Oladele (2013) that training enabled employees to not only acquire current knowledge of their job content and scope but also broadened their expertise required in handling future responsibilities

and assignments. The findings supported the sentiments of Manju and Suresh (2011) that through training and development programs, employees' technical skills were developed which enhanced their capabilities in carrying out their duties leading to increased staff productivity as argued by Rahman and Nas (2013). The results also agreed with that of Wheelen and Hunger (2013) that staff who underwent through effective training and development programs were more satisfied with their careers and hence, were more committed in their work.

The above findings were in line with that of Tahiret al.(2014) that training and development assisted employees in growing their skills, abilities and knowledge which enhanced their job performance. The study findings agreed with that of Ogbu (2017) that training and development programs were capable of improving the skills, morale and productivity of employees, aspects that were important for the organizational performance. The study results also agreed with those of Saleh (2016) who found that staff training and development enabled employees to upgrade their skills and knowledge for better performance and also supported the study by Rahman et al. (2011) which established that teacher training led to effective teaching which translated to improved performance. The findings of this study further supported the finding by Gambo (2015) that training and development programs enhanced employees' technical knowhow to withstand the challenges of contemporary times which made it possible to sustain and maintain their productivity.

#### **4.4.2.4 Other Aspects of Teaching Staff Training and Development Practiced in Schools**

The other aspects of staff training and development that were being practiced in the schools considered in this study and which had an influence on academic performance are summarized in Table 4.9. CEMASTE (SMASE) training programs for teachers was cited by 80 (52.98%) of the principals, 73 (48.34%) mentioned peer meetings/training, peer mentorship was highlighted by 71 (47.02%) of the principals, 66 (43.71%) observed that their schools invited external trainers to the schools, 63 (41.72%) noted that benchmarking/school exchange programs were considered while 58 (38.41%) and 57 (37.75%) of the principals stated that examiners' meetings and cluster marking and setting of examinations were part of the staff training and development practices emphasized in their schools respectively.

The findings also show that 52 (34.44%) of the principals stated that their schools facilitated the training of teachers as national examiners with KNEC, 51 (33.77%) underlined that subject symposiums were carried out, 49 (32.45%) mentioned internal departmental discussions and competitions, TSC in service training was cited by 42 (27.81%) of the principals while 40 (26.49%) stated that training on the use of ICT in content delivery for different subjects was carried out in their schools. Role modeling was singled out by 32 (21.19%) of the principals, 28 (18.54%) cited co-teaching, induction workshops were mentioned by 25 (16.56%) of the principals, 21 (13.91%) stated that delegation of duties to teachers was practiced in their schools, while 16 (10.60%), 14 (9.27%) and 4 (2.65%) of the principals observed that cluster meetings, coaching of new

staff and apprenticeship were part of their staff training and development practices respectively.

These findings meant that secondary schools in Machakos County exploited diverse programmes ranging from SMASE training, peer training and peer mentorship to role modeling and co-teaching in order to ensure that their teaching staff received the relevant training and development required to boost the academic performance of their schools.

**Table 4.9: Other Aspects of Teaching Staff Training and Development Practiced in Schools**

<b>Staff training and development practices</b>	<b>Frequency</b>	<b>Percentage</b>
CEMASTEA (SMASE) training programs for teachers	80	52.98
Peer meetings/training	73	48.34
Peer mentorship	71	47.02
Inviting external speakers and trainers to the school	66	43.71
Benchmarking/school exchange programme	63	41.72
Examiners meetings	58	38.41
Cluster marking and setting of examinations	57	37.75
Facilitating training of teachers as KNEC examiners	52	34.44
Subject symposiums	51	33.77
Internal department discussions and competitions	49	32.45
TSC in service training	42	27.81
Training on use of ICT in content delivery	40	26.49
Role modeling	32	21.19
Co-teaching	28	18.54
Induction workshops	25	16.56
Delegation of duties to teachers	21	13.91
Coaching new staff	14	9.27
Apprenticeship	4	2.65

#### **4.4.2.5 Possible Ways of Improving Teaching Staff Training and Development**

The possible ways through which staff training and development could be improved to enhance academic performance in the sampled schools as suggested by the principals are outlined in Table 4.10. The findings showed that all the principals called for frequent, intensive and relevant training, 143 (94.70%) noted that inclusivity in training was essential, 131 (86.75%) of the principals believed that training programmes should be incentivized, 129 (85.43%) suggested increased team building sessions while in-service training during holidays, peer counselling/informal training for all staff and uptake of online classes by teachers were encouraged by 116 (76.82%), 96 (63.58%) and 95 (62.91%) of the principals respectively.

Fairness in promotions after training was suggested by 87 (57.62%) of the principals. Others 83 (54.97%), underscored that the identification of competence gaps ought to be done after consulting stakeholders so that proper training programs can be designed. In this case, teachers were to be allowed to suggest the areas they needed to be trained in. Quite a number of principals, 80 (52.98%) argued that the Ministry of Education should sponsor different workshops so that more teachers can participate, 71 (47.02%) believed that more seminars for HODs should be organized, 70 (46.36%) called for proper programming of training and development sessions, 69 (45.70%) underlined that more trainers and the required reference materials should be availed while 62 (41.06%) and 56 (37.09%) of the principals were of the view that there ought to be increased motivational talks for teachers and that recognized certificates should be issued to trained teachers respectively.

The results further show that 45 (29.80%) of the principals encouraged the use of school clusters in sharing of ideas, 42 (27.81%) suggested more exchange programs with performing schools, 40 (26.49%) of the principals called for intensive ICT training so that teachers can use laptops, projectors, LCD screens, videos, slides in content delivery, 36 (23.84%) observed that examiners and experts in each subject should be invited to speak to teachers, 30 (19.87%) noted that teachers can be encouraged to make private arrangements for personal development, 22 (14.57%) pointed out that impact assessment analysis after training and development was necessary while 16 (10.60%) of the principals stated that a database of those who have attended training should be kept to ensure proper scheduling of training and development sessions so that all teachers get opportunity for training.



**Table 4.10: Possible Ways of Improving Teaching Staff Training and Development**

<b>Possible ways</b>	<b>Frequency</b>	<b>Percent</b>
Frequent, intensive and relevant training	151	100.00
Inclusivity in training/involve teachers indiscriminately	143	94.70
Incentivize the training programmes	131	86.75
Increased team building sessions	129	85.43
In-service training during holidays	116	76.82
Peer counselling/Informal training for all staff	96	63.58
Encourage uptake of online classes	95	62.91
Fairness in promotions after training	87	57.62
Identify competence gaps through stakeholder consultations	83	54.97
MOE to sponsor workshops for more teachers to participate	80	52.98
Proper programming of training sessions	70	46.36
Avail more trainers and required reference materials	69	45.70
Increased motivational talks for teachers	62	41.06
Issuing recognized certificates to trained teachers	56	37.09
Exchange programmes with performing schools	42	27.81
Increased ICT training – use of laptops, projectors, LCD screens	40	26.49
Encourage private arrangements for personal development	30	19.87
Impact assessment analysis	22	14.57
Keeping dataset on training attendees for proper scheduling	16	10.60

The findings given in Table 4.10 implied that there were several aspects of teaching staff training and development in the Machakos County that needed to be improved so as to enhance academic performance. Among the priority areas were the frequency, intensity and relevance of training offered, making staff training and development more inclusive, ensuring that training programs are incentivized and increasing the number of team building sessions. The study results were in line with the suggestions of Pahuja and Dalal (2012) that organizations ought to continuously develop their employees so as to maintain their productivity and enhance general organizational success. This was also in support of the study by Zain and Javed (2015) which highlighted that current change in employee's skill sets required constant and frequent training in the industry.

Moreover, the study results were consistent with the recommendations of Meeta and Dwivedi (2016) that employees across all management levels should go through training and development programs which are established after proper analysis of their value to the organization. Pertaining to relevance of the programs, the findings of this study were in accordance with the views of Ogbu (2017) who emphasized that training and development programs offered by organizations should be able to improve the skills, morale and productivity of employees. The study findings further agreed with the findings of Emmanuel et al.(2013) that employees need to be motivated during training programs and also that of Mansour (2013) that organizations should offer training models that support e-learning besides enhancing employee self-development.

### **4.4.3 Teaching Staff Compensation**

The study sought to determine the influence of teaching staff compensation on the academic performance of secondary schools in Machakos County. Descriptive statistics were first extracted to show the level of teaching staff compensation in the sampled schools. The findings obtained are outlined in the following subsections: -

#### **4.4.3.1 Aspects of Teaching Staff Compensation**

The principals reacted to a number of statements relating to staff compensation in their schools by rating their level of agreement or disagreement with the statements based on a Likert scale which ranged from 5=strongly agree to 1=strongly disagree .The mean of responses and standard deviation for each statement is provided in Table 4.11. The study established that on average, the principals neither agreed nor disagreed that there were established overtime policies in their schools, given a mean of 2.709 and Std. deviation of 1.203 and whether their schools offered good allowances packages compared to other schools as shown by mean of 3.152 and Std. deviation of 0.985. On the other hand, the principals on average, agreed that their schools offered diverse incentives to teachers, as shown by mean of 3.636 and Std. deviation of 0.934. That the rewards and benefits offered by their schools were proportionate with the amount and quality of work done by teachers by a mean of 3.715 and Std. deviation of 1.029. That there was fairness and equity in the manner in which allowances and other benefits were given to teachers in their schools, given by a mean of 4.046 and a Std. deviation of 0.955. The findings further showed that the principals also agreed that the teachers who produced good results in their schools were always recognized and rewarded given a mean of 4.232 and

Std. deviation of 0.734. Overall, the mean responses of 3.582 and a standard deviation of 0.706 implied that the principals on average were agreeing with most of the statements presented on staff compensation and that there was variation in their responses as indicated by the standard deviation.

**Table 4.11: Aspects of Teaching Staff Compensation**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
There is an established overtime policy in this school.	151	2.709	1.203
The school offers good allowances packages compared to other schools.	151	3.152	0.985
The school offers diverse incentives to teachers.	151	3.636	0.934
The rewards and benefits offered by the school are proportionate with the amount and quality of work done by teachers.	151	3.715	1.029
There is fairness and equity in the manner in which allowances and other benefits are given to teachers in this school.	151	4.046	0.955
The teachers who produce good results in this school are always recognized and rewarded.	151	4.232	0.734
<b>Composite Mean and Standard Deviation</b>		<b>3.582</b>	<b>0.706</b>
<b>Valid N</b>	<b>151</b>		

The findings provided in Table 4.11 above demonstrate that in the sampled schools, much emphasis was largely directed towards recognizing and rewarding teachers who produced good results and also guaranteeing fairness and equity in the manner in which allowances and other benefits were given to teachers. The schools had also to a large

extent paid attention to offering rewards and benefits that matched the amount and quality of work done by teachers and also offering them diverse incentives. However, the schools had not optimally capitalized on offering better allowance packages to their teaching staff in comparison to other schools and also establishing overtime policies.

Akter and Moazzam (2016) argue that its necessary for organizations to develop and maintain an effective compensation programme if they are to attract and retain efficient and competent employees who can perform well in their duties. Kajunju (2015) also posits that the formulation of an excellent plan for rewarding employees within an organization is critical for both the organization and its staff. The compensation given according to Nwaka and Ofojebe (2020) comprises of not only basic rewards but also extrinsic and monetary rewards. Kabera (2012) also views staff compensation as all forms of financial returns and tangible benefits received by staff as part of the employment relationship where the benefits encompass payments made to employees indirectly, both monetary and non-monetary.

The findings provided in Table 4.11 are consistent with the arguments of Gitonga et al.(2016) that the strategies and policies used when compensating employees should aim at rewarding individuals fairly, equitably and consistently in accordance with their value to the organization. The findings of the study also support the observations of Keinan and Karugu (2016) that the rewards given to employees are formed on the basis of the job value, the personal input of the employee, their efforts in addition to the way in which they perform. Hassan (2016) posits that competitive payment packages should be given to employees in order to motivate them. Kiiru (2013) also argues that compensation and

benefits packages for employees ought to be comparative and also market based so that the highly qualified personnel can be attracted to continue working for the organizations.

#### **4.4.3.2 Other Forms of Teaching Staff Compensation**

The other forms of teaching staff compensation in the sampled schools as mentioned by the principals are given in Table 4.12. The findings show that 143 (94.70%) of the principals stated that their schools offered teachers improved free meals as incentives to stay longer in school and engage students. Gift vouchers were mentioned by 137 (90.73%) of the principals, 130 (86.09%) mentioned Teacher of the Year Awards (TOYA), 125 (82.78%) stated that their schools allowed teachers to earn extra income by teaching overtime, 123 (81.46%) indicated that their schools gave general awards to all teachers regardless of whether they had handled a candidates' class while 118 (78.15%) of the principals stated that their schools offered diverse financial rewards to their staff.

The results also show that 112 (74.17%) of the principals asserted that their schools gave a day off, 109 (72.19%) underscored that certificates recognizing teachers' performance were given in their schools, 106 (70.20%) mentioned favorable recommendation letters for staff members waiting to transition to other stations or to change careers, 90 (59.60%) of the principals mentioned the allocation of more duties/delegated authority while 83 (54.97%) of the principals noted that their schools organized paid teachers' trips/retreats once in a while. The findings further showed that 88 (58.28%) of the principals indicated that their schools gave bonus salary payments to staff, 62 (41.06%) mentioned free days or afternoons for staff, 47 (31.13%) stated that travel allowances were given to their staff, 43 (28.48%) of the principals pointed out that staff who demonstrated impressive

performance in their schools were promoted, while 40 (26.49%) of the principals observed that their schools offered investment opportunities for staff members. It can therefore be deduced that the schools used a combination of different packages ranging from regular pay to different allowances, rewards and incentives both monetary and non-monetary in order to compensate their teachers.

**Table 4.12: Other Forms of Teaching Staff Compensation**

<b>Staff Compensation</b>	<b>Frequency</b>	<b>Percent</b>
Free meals as incentives to engage students much longer	143	94.70
Gift vouchers	137	90.73
Teacher of the Year Awards (TOYA)	130	86.09
Overtime income generation opportunities	125	82.78
Awards to all teachers regardless of handling a candidates' class	123	81.46
Diverse financial rewards	118	78.15
Certificates recognizing teachers performance	109	72.19
Favourable recommendation letters for staff members waiting to transition to other stations or to change careers	106	70.20
Allocation of more duties-delegate authority	90	59.60
Paid teachers trips/retreats once in a while in good location	83	54.97
Bonus salary payments to staff	88	58.28
Free days or afternoons	62	41.06
Travel allowances	47	31.13
Promotions on impressive performance	43	28.48
Investment opportunities for staff members	40	26.49

The findings presented in Table 4.12 were in accordance with the views of Mutahaba (2011) that compensation includes, but is not limited to health care benefits, different

incentives, part time off, vacation time, flexible schedules, retirement, special programs, work environment and salary. The findings were in agreement with that of a study by Gitonga et al.(2016) which found that a reasonable salary, benefits in form of bonuses and allowances and both certification and verbal recognition were used extensively by organizations to promote employee performance. The findings further supported the conclusions of McDonald (2017) that financial rewards were not the only way of motivating and retaining employees in the long run.

#### **4.4.3.3 Key Informants' Responses on ways Schools compensate their Teachers**

The ways through which schools compensated their teachers as pointed out by the key informants are summarized in Table 4.13. According to KI 1, the being a private school, gave compensation based on the school's ability and that their salaries were competitive compared to what was provided under the TSC scale. The school also offered extra pay for teaching extra classes. The school also offered free tea and lunch and housed a few teachers within the school. KI 2 also stated that their school offered tea and lunch as well as housing for those willing. The school also had a remedial policy manned from each department and that parents also paid indirectly for compensation.

On their part, KI 3 indicated that their school had a remedial scheme managed by a teacher in each department and that the teachers who were in class past 3.20 pm, the normal working hours and those involved in giving and marking exams earned more. The key informant also asserted that over 70% of the teachers were housed within the school and that lunch and tea (10.00 am and 4.00pm) were offered by the school. They further noted that teachers once in a while went for trips within the country and overseas and that



best performing teachers were awarded during parents' meetings. This is a public school with resources. The KI 4 indicated that salaries, transport to school, free balanced lunch, housing, and pay for teaching at night were forms of compensation given to teachers in their school. As for KI 5, they indicated that their school offered regular pay based on parent's routine pay. The school did not have a remedial policy. Last but not least, KI 6 stated that in their school, they only paid a salary but what was offered was not comparable to what other schools paid. It is a private school, willing seller willing buyer. They however, did not disclose by how much their pay was lower compared to those other schools.

These findings resonate well with the sentiments of the principals during the survey that different forms of compensation, both financial and non-financial, were offered to teaching staff in the secondary schools in Machakos County. It can also be argued that for the private schools, the level of compensation in form of salaries depended on the incomes the schools generated. Furthermore, it can be inferred from these findings that national and top performing schools provided better compensation packages for their teaching staff compared to the bottom two nonperforming secondary schools. The findings compare to that of the study by Kabera (2012) which views compensation as all forms of financial returns and tangible benefits (both monetary and non-monetary) received by staff as part of the employment relationship.

**Table 4.13: Key Informants' Responses on Ways Schools Compensate Teachers**

No.	Participant	Response
1	KI 1	We give compensation based on the school's ability but we give competitive salaries compared to the TSC scale. We offer extra pay for teaching extra classes. We offer tea and lunch. A few teachers are housed in the school.
2	KI 2	We offer tea and lunch as well as housing for those willing. We have remedial policy manned from each department. The parents also pay indirectly for compensation. We have a remedial scheme managed by a teacher in each
3	KI 3	department. Those in class past 3.20 pm and also those giving exams and marking earn more. Over 70% of the teachers are housed within the school Lunch and tea (10.00 am and 4.00pm) are offered by the school Teachers once in a while go for trips. Best performing teachers are awarded during parents' meetings Salaries, transport to school, free balanced lunch, housing, pay
4	KI 4	for teaching at night
5	KI 5	Regular pay based on parents' routine pay. We do not have remedial policy. We only pay a salary. It is not comparable to other schools
6	KI 6	though.

#### **4.4.3.4 Key Informants' Responses on Overtime Compensation for Teaching Staff**

The study also sought to find out from the key informants whether they compensated their teachers for working overtime. Three of the KIs (KI 1, KI 5 and KI 6) indicated that

there was no overtime teaching in their schools. Teaching occurred within the hours stipulated in the school timetable. The principals noted that they ensured that teachers used the time allocated in the timetable well. The rest, KI 2, KI 3, and KI 4 stated that compensation for overtime was given to their staff though with some caution. Their responses are given as follow;

*“Yes...The remedial policy takes care of extra time. However, it is controlled so that teachers do not cover the syllabus at a slow pace to benefit from the scheme.” KI 2 ..... “Yes... However, it has to be structured and also informed from the subjects’ department and on the basis of justifiable reasons as to why students need to be taught overtime. We discourage parents from making private arrangements but we are aware it happens.”KI3.....” Yes..... Not by cash but other incentives such as taking them for trips, housing and feeding.” KI 4.*

It can be inferred from these findings that in the schools where overtime teaching was practiced, the staff were compensated guided by established policies or laid down structures so as to ensure that such opportunities were not exploited by teachers for selfish gains.

#### **4.4.3.5 Ways in which Teaching Staff Compensation Influenced Academic Performance**

The principals were also asked to indicate whether staff compensation influenced academic performance in their schools. The results revealed that an overwhelming majority of the principals, 139 (92.10%), argued that staff compensation influenced academic performance of their schools, the rest, 12 (7.90%) it did not. The ways through which staff compensation had affected academic performance in the schools considered in this study as noted by these principals are outlined in Table 4.14. The findings show that all the principals who indicated that staff compensation influenced the academic

performance of their schools stated that better compensation motivated teaching staff to work extra hard to produce better results. Those who asserted that better compensation motivated staff to give their best in their subjects were 135 (97.12%). According to 126 (90.65%) of the principals, competitive compensations enhanced competition among staff translating to improved performance. Better compensation as stated by 123 (88.49%) of the principals encourages early coverage of syllabus resulting to adequate revision time. It also increased teacher's willingness to take personal initiatives or make sacrifices to teach extra time and also encouraged teachers to work under minimal supervision as pointed out by 117 (84.17%) and 110 (79.14%) of the principals.

Rewards were recognized by 101 (72.66%) as important in motivating performing teachers to work even extra harder and also challenging other members of staff to put more effort in delivering better results. Overtime compensation according to 91 (65.47%) of the principals enabled teachers to create more time for slow learners. It was also argued by 86 (61.87%) of the principals that when rewards were given on merit, staff put more effort to attain the set performance targets. Better compensation as stated by 75 (53.96%) of the principals was a means of ensuring that staff felt appreciated and this created positive energy in teaching resulting to favorable results. The findings also show that well compensated teachers were happy and efficiently carried out their work as stated by 72 (51.80%) of the principals.

**Table 4.14: Ways in which Teaching Staff Compensation Influenced Academic Performance**

<b>Mentioned ways</b>	<b>Frequency</b>	<b>Percent</b>
Better compensation motivates teaching staff to work extra hard to produce better results	139	100.00
Better compensation motivates staff to give their best	135	97.12
Competitive compensation enhances competition among staff translating to improved performance	126	90.65
Better compensation encourages early coverage of syllabus resulting to adequate revision time	123	88.49
Better compensation increases teacher's willingness to take personal initiatives or make sacrifices to teach extra time	117	84.17
Well compensated teachers work under minimal supervision	110	79.14
Rewards motivates performing teachers to work even extra harder and also challenges other members of staff to put more effort	101	72.66
Overtime compensation enables teachers to create more time for slow learners	91	65.47
When rewards are given on merit, staff put more effort to attain the targets	86	61.87
Better compensation makes staff feel appreciated and this creates positive energy in teaching and hence, positive results.	75	53.96
Well compensated teachers are happy and efficient in their work.	72	51.80

From the above findings, it can be inferred that the compensation of teaching staff majorly influenced the academic performance of secondary schools in Machakos County by impacting their motivation. With better compensation, teachers were highly motivated to work extra harder and give their very best to produce better results. Better compensation was a catalyst of competition among teachers, it increased their willingness to teach extra time more so to assist slow learners, and also motivated the staff to work harder to achieve set targets under minimal supervision actions which translated to improved performance. These findings are in harmony with the observations of Omotayo et al.(2014) that salary packages were liked to organizational commitment and also the findings of Adeniji and Osibanjo (2012) and Ulumma and Amah (2016) that compensation packages that entailed wages, salaries and fringe benefits affected employees' performance which had an impact on organizational performance.

The study results supported that of Akter and Moazzam (2016) which revealed that employees would confer the maximum effort when given the best current market scheme and maintained by the organization. The findings also agreed with those Obasan (2012) which demonstrated that an organization's compensation strategy affected staff productivity and motivation which enhanced organizational success. The findings were further in line with the observations of Ojo et al. (2014) that when employees were adequately compensated, they performed better than those who were poorly compensated and that compensation packages may improve teacher satisfaction as noted by Muguongoet al(2015).

#### **4.4.3.6 Key Informants Responses on the Influence of Teaching Staff Compensation on Academic Performance**

The key informants were asked to indicate whether compensation translated to good academic performance. Five of the KIs from public and private schools, stated that better compensation translated to good academic performance. The general observation drawn from their responses was that better compensation motivated teachers to deliver good results and in cases where such motivation was missing, teachers only did what was specified in the timetable. Such teachers did not make any extra sacrifices to assist students.

*“Yes... Adequate compensation motivates teachers to produce quality results. The ones who do not perform well are likely to pull up their socks so that they can receive extra compensation.” KI 2 ....” Yes....Compensation translates to good results. In fact, most teachers wish to have more classes to have more compensation to increase their motivation. Others work in cohorts especially science teachers so that they can produce better results.” KI 3.*

However, KI 1 argued that it was not compensation but the commitment of the teachers and interaction level with students that resulted to better academic performance. These findings confirm the observations by principals that the level of compensation of teaching staff had an impact on their level of motivation which determined the effort they put on delivering better results. The findings nonetheless, also suggest that better staff compensation alone is not an end to better academic performance, but has to be accompanied by greater staff commitment and interaction with students. These findings were commensurate with that of Rizal et al. (2014) which showed that compensation alone cannot improve employee performance. These employees according to the authors needed to be self-motivated to perform well. The study findings also support that of

Thiriku and Were (2016) who found there were cases where although employees felt that the amount of pay as well as their benefits package was not a reflection of what they deserved or did not match what they were offered elsewhere, they still demonstrated commitment in their work.

#### **4.4.3.7 Possible Ways of Improving Teaching Staff Compensation**

The principals were also asked to suggest the possible ways of improving teaching staff compensation in their schools so as to enhance academic performance. The suggestions are as shown in Table 4.15. The findings show that all the principals suggested salary increments or better pay for teaching staff. According to 149 (98.68%) of the principals, more funds for better allowances should be availed, 145 (96.03%) called for timely or prompt payments so that teachers meet their targets, 139 (92.05%) noted that teachers needed to be awarded immediately results were released, 128 (84.77%) suggested that more investments in income generating activities were necessary to increase revenues to be used to pay teachers for overtime while 115 (76.16%) of the principals called for increased budget allocations by BOM for compensating BOM teachers.

The study results also show that 106 (70.20%) of the principals called for fairness in compensation to enhance teacher motivation, 102 (67.55%) suggested diverse rewards for teachers so as to improve grades in different subjects, 99 (65.56%) believed that increased promotions and monetary awards were necessary, 86 (56.95%) of the principals noted that other aspects of performance other than academics should be recognized while 75 (49.67%) of the principals suggested that tokens given to teachers should match the actual performance of each teacher per subject (earn as you perform).



The creation of strong welfare office for teachers was suggested by 57 (37.75%) of the principals. Improved free lunch and accommodation and implementation of Work Injury Benefits Act (WIBA) policies were emphasized by 54 (35.76%) and 39 (25.83%) of the principals respectively. The findings further show that 31 (20.53%) of the principals thought it was necessary for TSC to establish a reward system for teachers, 13 (8.61%) stated that teachers should be refunded when they spent their monies on revision materials while an equal number of principals, 1 (0.66%), each noted that teachers can be awarded some tenders in the school and that school heads can be allowed to charge some motivation fees respectively.

**Table 4.15: Possible Ways of Improving Teaching Staff Compensation**

<b>Staff Compensation</b>	<b>Frequency</b>	<b>Percent</b>
Salary increments/better pay for teaching staff	151	100.00
Avail more funds for better allowances	149	98.68
Timely or prompt payments so that teachers meet their target	145	96.03
Award teachers immediately results are released	139	92.05
More income generating activities to increase revenues to be used to pay overtime	128	84.77
Increased budget allocations by BOM	115	76.16
Fairness in compensation to encourage teacher motivation	106	70.20
Diverse rewards for teachers for improved grades in subjects	102	67.55
Increased promotions and monetary awards	99	65.56
Recognize other aspects of performance other than academics	86	56.95
Token given to teachers should match the actual performance of each teacher per subject (earn as you perform)	75	49.67
Creation of strong welfare office for teachers	57	37.75
Improve free lunch and accommodation	54	35.76
Work Injury Benefits Act (WIBA) policies	39	25.83
TSC to establish a reward system for teachers	31	20.53
Refund teachers when they spend their monies on revision materials	13	8.61
Award teachers some tenders in the school	1	0.66
School heads to be allowed to charge some motivation fees	1	0.66

The above findings are an indication that there were several measures that could be undertaken to improve the level of compensation for teaching staff in the secondary schools in Machakos County so that the schools' academic performance could be improved. Salary increments, better allowances, timely salary payments and release of awards to teachers, generation of income to support overtime compensation as well as fair compensation to teachers were among the measures that required prioritization by the management of these secondary schools. These findings supported the recommendation by Adeniji and Osibanjo (2012) that organizations should regularly review their compensation packages at various levels so that they give the best current market scheme for their employees to enhance their satisfaction. The findings resonated with the suggestions by Ojo et al. (2014) that employees should be adequately compensated so that they can perform better.

The findings of this study are congruent with the recommendations of Hameed et al. (2014) that organizations should use incentives to employee performance. The study results also heed to the recommendation of Muguongo et al.(2015) that teachers' compensation should be reviewed so that it is commensurate with the services they rendered. The findings also agree with the conclusions of Gitonga et al.(2016) that organizations ought to improve their employee rewards and recognition programs for jobs well done so that they can motivate their employees to continue enhancing their productivity. The findings were further in line with the discovery of Faizuddin (2018) that salary increments were amongst the major strategies used by organizations to retain their employees and hence, there was need for organizations to review their employees' salaries.

#### **4.4.4 Teaching Staff Safety**

The study sought to examine the influence of teaching staff safety on academic performance of secondary schools in Machakos County. To explore the level of staff safety in these schools, the principals were thus presented with several questions related to staff safety in their schools and the findings obtained are outlined in the following sub-sections: -

##### **4.4.4.1 Aspects of Teaching Staff Safety**

The principals rated their level of agreement/disagreement with these statements based on a Likert scale that ranged from 5=strongly agree. 1=strongly disagree to The mean and standard deviation associated with each statement are as given in Table 4.16. The study findings revealed that on average, the principals neither agreed nor disagreed that their schools offered decent housing and safe environments for their teachers, given a mean of 2.921 and Std. deviation of 1.299. On the other hand, the principals on average, agreed that there were accessible health facilities to attend to accidents in their schools, given by a mean of 3.530 and Std. deviation of 1.171. That teachers in their schools were highly sensitized on safety issues by mean of 3.596 and Std. deviation of 1.059. That the workspaces in their schools were well designed to provide privacy for their teacher's mean of 3.715 and Std. deviation of 1.067. And that the working areas for their teachers were clean and free of pollution, given a mean of 3.974 and Std. deviation of 0.931.

The principals on average agreed that there were clear policies on health and safety of teachers in their schools as shown by mean of 4.013 and Std. deviation of 0.800 and that there was no harassment in their schools' work environment as supported by a mean of

4.132 and Std. deviation of 0.797. The composite mean of 3.697 and a standard deviation of 0.737 implied that the principals on average were in agreement with most of the statements on staff safety in their schools.

**Table 4.16: Aspects of Teaching Staff Safety**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
The school offers descent housing and a safe environment for our teachers.	151	2.921	1.299
There is an accessible health facility to attend to accidents in the school.	151	3.530	1.171
Teachers in this school are highly sensitized on safety issues.	151	3.596	1.059
The workspace in this school is well designed to provide privacy for our teachers.	151	3.715	1.067
The working area for our teachers is clean and free of pollution.	151	3.974	0.931
There is a clear policy on health and safety of teachers in the school.	151	4.013	0.800
There is no harassment in this school's work environment.	151	4.132	0.797
<b>Composite Mean and Standard Deviation</b>	<b>151</b>	<b>3.697</b>	<b>0.737</b>
<b>Valid N</b>	<b>151</b>		

The above findings suggest that while the management of the secondary schools in Machakos County had made considerable efforts to ensure that their teaching staff were for instance not harassed in their work and had the privacy they required, that clear health and safety policies were in place, that school environments were clean and free from pollution and also that teachers were highly sensitized on safety issues, these schools were yet to adequately offer decent housing and a safe environment for their teachers. Thiriku and Were (2016) underscores that regardless of their nature of work, workers should be able to carry out their responsibilities in a safe and secure environment which is also free from hazards. Kiiru (2013) also observes that better working conditions are a statutory requirement by law contained in the constitution of Kenya and that top performers want to work in a healthy and safe environment free from accidents, violence, harassment, layoffs and discrimination.

The findings of this study conformed to the recommendation by Ahmed et al. (2014) that overall, health safety policy should be well applied to workers and they should be made aware of its existence and value as this will enhance their productivity. The findings also supported the argument by Makhamara (2016), that the management of organizations should continually train their employees on health and safety issues. The findings further support the observation by Arif (2017) that organizational safety and health is a multidisciplinary concept that concentrates on the promotion of safety, health, and welfare of people engaged in work or employment.

#### **4.4.4.2 Ways in which Staff Safety Influenced Academic Performance**

From the responses given, a majority of the principals, 123 (81.50%), indicated that staff safety influenced academic performance of their schools. The rest of the principals, 28 (18.50%) were of the view that this teaching staff safety did not influence academic performance in their schools. The principals also highlighted the ways in which safety practices had affected the academic performance in their schools. The responses are provided in Table 4.17. The results show that 110 (89.43%) of the principals argued that ensuring staff safety ensures that teachers feel secure and teach without fear leading to good concentration in class, 106 (86.18%) observed that insecurity cases acted as distraction for teachers which created an unideal environment for robust academic performance, while 100 (81.30%) of the principals asserted that when teachers felt insecure, they lacked confidence leading to low morale, thus negatively affecting school performance. According to 93 (75.61%) of the principals, a high sense of security among teachers ensured that the teachers fully focused on their work, 87 (70.73%) pointed out that with enhanced staff safety, accidents and diseases were rare, 79 (64.23%) underscored that accessibility to nearby healthcare facilities saved time during emergencies while 75 (60.98%) of the principals observed that safety in schools made teachers feel secure and protected in their place of work.

Clean environment as stated by 74 (60.16%) of the principals made teachers to concentrate on their activities, 66 (53.66%) argued that emergencies such as sicknesses, injuries could lead to disruption of the teaching process, 61 (49.59%) of the principals noted that teachers in poor health were not comfortable and hence, could not fully concentrate in producing good results while 58 (47.15%) and 55 (44.72%) of the

principals believed that enhanced staff safety reduced absenteeism among teachers and that it promoted good health which was necessary for teachers to deliver in their workplace. It was further noted by 44 (35.77%) of the principals that safe school environment cultivated sense of belonging among teachers while 41 (33.33%) reported that school isolation did not provide a conducive environment for learning as teachers had to come from far to attend classes leading to increased absenteeism.



**Table 4.17: Ways in which Teaching Staff Safety Influenced Academic Performance**

	<b>Frequency</b>	<b>Percent</b>
Teachers who feel secure are able to concentrate in class	110	89.43
Insecurity cases act as distraction for teachers which creates an unideal environment for robust academic performance	106	86.18
When teachers feel insecure, they lack confidence leading to low morale thus negatively affecting school performance.	100	81.30
A high sense of security among teachers helps them to be focused.	93	75.61
Accidents and diseases are rare hence improved performance	87	70.73
Accessibility to health facilities saves time during emergencies	79	64.23
Safety in school makes teachers feel secure and protected	75	60.98
Clean environment enhances teachers' concentration in activities	74	60.16
Emergencies such as sickness can disrupt the teaching process	66	53.66
Staff in poor health cannot fully concentrate in producing good results.	61	49.59
Reduces absenteeism among teachers	58	47.15
Safety promotes good health which is necessary for good results	55	44.72
Safe school environment cultivates sense of belonging among teachers	44	35.77
School isolation does not provide a conducive environment for teachers who come from far to attend classes	41	33.33

The above findings implied that guaranteeing the safety and security of teaching staff was necessary in ensuring that they could concentrate and undertake their activities without unnecessary distractions so that their productivity is enhanced. Working in a secure environment meant that teachers could focus on producing good academic results since their motivation was enhanced. When the safety of teachers was prioritized, the occurrence of accidents and disease emergencies that disrupted teaching were minimized and the level of absenteeism among teachers reduced. This translated to improved staff delivery and hence good results. Teachers who worked in safe environments were committed in their work as demonstrated by a higher sense of belonging to their schools.

The findings of this study related to that Ahmed et al.(2014) which indicated that occupational health and safety enhanced the productivity of employees. The findings also supported the observations by Agwu (2016) that where a culture of safety had been inculcated in the workforce, few accidents, damages, liabilities, and legal costs were witnessed and this resulted to better productivity, efficiency, quality, good corporate image and innovative capacity in the workplace. The findings further agreed with that of Sembe and Ayuo (2017) who found that occupational health and safety led to improved job performance among employees and also that safety policies were very important since they affected the output of teaching staff as noted by Jonathan and Mbogo (2016).

#### **4.4.4.3 Possible Measures of Improving Teaching Staff Safety in Schools**

The possible ways in which the safety of teaching staff in Machakos County could be improved in a bid to enhance the academic performance in these schools as suggested by the principals are outlined in Table 4.18. The findings presented in Table 4.18 showed that

124 (82.12%) of the principals recommended the availing of free medical services within the schools, 123 (81.46%) noted that more funds were needed to equip hospitals within schools, 117 (77.48%) of the principals noted that it was important for teachers to be free to share the safety challenges they faced within schools while 112 (74.17%) and 108 (71.52%) of the principals called for installation of CCTVs in strategic locations within the schools to monitor different activities and the fencing of schools compounds or alternatively erecting perimeter walls around the schools to keep away intruders respectively.

The findings also show that 95 (62.91%) of the principals stated that schools needed to contract well known security firms or persons to provide security in their compounds, promotion of good teacher, student, and community relations was suggested by 91 (60.26%) of the principals, 86 (56.95%) recommended conducive teaching environment while an equal number of principals, 85 (56.29%) argued that adequate sanitation facilities and setting up of staff quarters nearer to schools was crucial.

The provision of first aid kits and installation of fire extinguishers in school buildings were recommended by 82 (54.30%) and 73 (48.34%) of the principals respectively. Maintenance of clean school compounds and facilities, provision of clean water and acquisition of security certifications were also measures emphasized by 71 (47.02%), 70 (46.36%) and 69 (45.70%) of the principals respectively. Enhanced safety and emergency response training for all teachers and regular updating of school safety plans were measures recommended to improve staff safety in secondary schools in Machakos County as indicated by 69 (45.70%) and 64 (42.38%) of the principals respectively. It was also found that 61 (40.40%) of the principals believed that teachers ought to be

accorded more space in staff rooms to enhance their privacy and that schools should insure teaching staff and have organized school safety teams as pointed out by 56 (37.09%) and 57 (37.75%) of the principals respectively.

The study findings further show that 54 (35.76%) of the principals called for development of school safety policies which should be communicated to teaching staff, 45 (29.80%) asserted that the security for female teachers and sensitization on sexual predation should be beefed up, 18 (11.92%) of the principals emphasized the timely remittance of statutory deductions such as health insurance, while 9 (5.96%) and 3 (1.99%) of the principals noted that teaching staff should be provided with adequate face masks, sanitizers, soap and water and that in some cases, changing school locations to more spacious locations was necessary respectively.

**Table 4.18: Possible Measures of Improving Teaching Staff Safety in Schools**

<b>Possible measures</b>	<b>Frequency</b>	<b>Percent</b>
Availability of medical services within school for free	124	82.12
More funds for equipping hospitals within the school	123	81.46
Teachers to be free to share safety challenges they faced	117	77.48
CCTVs to help monitor activities in the school	112	74.17
Fencing compound/perimeter wall to keep intruders away	108	71.52
Provision of security by contracting well known security personnel	95	62.91
Promotion of good teacher, student, community relations	91	60.26
Conducive teaching environment	86	56.95
Adequate sanitation facilities	85	56.29
Setting up teachers' quarters near school	85	56.29
Provision of first aid kits	82	54.30
Installation of fire extinguishers in buildings	73	48.34
Ensuring school compound and facilities are clean	71	47.02
Clean water	70	46.36
Acquire security certifications	69	45.70
Enhance safety and emergency response training for all teachers	69	45.70
Regular update of school safety plans	64	42.38
Teachers to have more space in staff rooms to enhance their privacy	61	40.40
Organize a school safety team	57	37.75
School to insure teaching staff	56	37.09
Develop safety policies and make them known to staff	54	35.76
More security for female staff and sensitization on sexual predation	45	29.80
Timely remittance of statutory deductions such as health insurance	18	11.92
Provide adequate face masks, sanitizers, soap and water	9	5.96
Change school location to a more spacious location	3	1.99

#### **4.4.5 Other HRM Practices influencing Academic Performance**

The other HRM practices that influenced academic performance of secondary schools in Machakos County as mentioned by the principals are outlined in Table 4.19. The findings show that 136 (90.07%) of the principals mentioned that succession planning to ensure there was enough competent persons to take over from exiting staff influenced the academic performance of their schools. From these results, 127 (84.11%) of the principals mentioned goal/target setting, 118 (78.15%) highlighted routine briefing, 112 (74.17%) cited open door policy while 106 (70.20%) and 93 (61.59%) of the principals stated that staff involvement especially by the BOM and spiritual and moral guidance of staff were HRM practices that influenced the academic performance of their schools respectively. About 84 (55.63%) of the principals mentioned school culture practices, 77 (50.99%) talked about a strong discipline committee team, 76 (50.33%) of the principals stated peer counselling while 58 (38.41%) of the principals observed that rehabilitation of teachers who are alcohol addicts was also a HRM practice that influenced the academic performance of their schools. Constant revision of daily teaching routines in school and recruitment of supportive staff on a competitive basis to ensure smooth flow of activities in the school were found to influence academic performance of secondary schools in Machakos County by 46 (30.46%) and 31 (20.53%) of the principals respectively.

**Table 4.19: Other HRM Practices Influencing Academic Performance**

<b>HRM Practice</b>	<b>Frequency</b>	<b>Percentage</b>
Succession planning	136	90.07
Goal/target setting	127	84.11
Routine staff briefing	118	78.15
Open door policy	112	74.17
Staff involvement (BOM)	106	70.20
Spiritual and moral guidance	93	61.59
School culture practices	84	55.63
Strong discipline committee team	77	50.99
Peer counseling	76	50.33
Rehabilitation for teachers who are alcohol addicts	58	38.41
Constant revision of daily routines in the school	46	30.46
Recruitments of support staff on a competitive basis for smooth flow of activities in the school	31	20.53

#### **4.4.6 School Infrastructure**

The study further sought to establish the moderating effect of school infrastructure on the relationship between human resource management practices and academic performance in secondary schools in Machakos County. Before the moderating effect was tested, descriptive statistics on school infrastructure in the sampled schools were computed and the findings are discussed in the following sub-sections: -

##### **4.4.6.1 Aspects of School Infrastructure**

The principals gave their assessment of their schools' infrastructure by stating their level of agreement/disagreement with several statements presented to them regarding school infrastructure based on a Likert scale ranging from 5=Strongly Agree to 1=Strongly Disagree . The mean of responses and standard deviation for each statement are outlined in Table 4.20. The study findings showed on average, the principals neither agreed nor disagreed that their schools had well-equipped libraries given a mean of 2.523 and Std. deviation of 1.210. The results also revealed on average, that the principals neither agreed nor disagreed that the students in their schools use libraries for individual studies and references with a mean of 2.550 and Std. deviation of 1.284. The schools had adequate halls, with a mean of 2.808, and Std. deviation of 1.247 and the students in their schools did experiments individually as given by mean of 2.848 and Std. deviation of 1.106.

The principals on average neither agreed nor disagreed that there were enough science laboratories in their schools by a mean of 2.94 and Std. deviation of 1.218. That the laboratories in their schools were well equipped mean of 3.278, Std. deviation of 1.156. That their schools had playing grounds for co-curricular activities as supported by



mean of 3.450 and Std. deviation of 1.237. However, the principals on average were in agreement that their schools had adequate classrooms as shown by a mean of 3.510 and Std. deviation of 1.221. The classrooms in their schools were big enough to accommodate all students as illustrated by a mean of 3.642 and Std. deviation of 1.139. The overall mean of responses of 3.061 and a standard deviation of 0.921 meant that on average, most of the respondents were neither agreeing nor disagreeing with most on the statements presented on school infrastructure and that their responses were varied as demonstrated by the standard deviation.

**Table 4.20: Aspects of School Infrastructure**

<b>Statements</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
The school has a well-equipped library.	151	2.523	1.210
Students in this school use the library for individual studies and references.	151	2.550	1.284
The school has adequate halls.	151	2.808	1.247
Students in this school do experiments individually.	151	2.848	1.106
There are enough science laboratories in the school.	151	2.940	1.218
The laboratories in this school are well equipped.	151	3.278	1.156
The school has playing grounds for co-curricular activities.	151	3.450	1.237
The school has adequate classrooms.	151	3.510	1.221
The classrooms in this school are big enough to accommodate all students	151	3.642	1.139
<b>Composite mean and standard deviation</b>		<b>3.061</b>	<b>0.921</b>
<b>Valid N</b>	<b>151</b>		

From these findings, it can be argued that the school infrastructure in the secondary schools in Machakos County ranging from well-equipped libraries and laboratories to

spacious class rooms was not adequate. According to Nwaka and Ofojebe (2020), for conducive teaching and learning classrooms, laboratories for the sciences, libraries, dormitories, playing fields, games equipment and other infrastructure should be available in schools. Amadi and Ezeugo (2019) also emphasizes that both students and teachers need facilities such as libraries, laboratories, good buildings, classrooms, good water supply, toilet facilities among other facilities for teaching and learning to take place.

#### **4.4.6.2 Role of Schools' Infrastructure in Enhancing Academic Performance**

The principals' views on whether their schools' infrastructure assisted their learners in improving their academic performance was sought. A majority of the principals, 131 (86.80%) stated that their schools' infrastructure helped their learners to achieve improved academic performance while the rest of the principals, 20 (13.20%), believed school infrastructure did not improve academic performance in their schools. This was reiterated by all the key informants.

*“Yes.... The school has 4 labs, 2 libraries, a multipurpose hall used for examinations and a good playing field. This gives learners time to polish what has been learnt in class. Students are able to access library services. The laboratories can be used with science teachers on arrangement.” KI 1*

*“Yes. ....It gives students confidence. Those willing can do extra work on their own. The school has 4 well equipped laboratories, 2 libraries, ICT centre that is well equipped and 2 modern playing fields.” KI 2.*

*“Yes. ....The school has 2 dining halls, 7 modern laboratories, ICT centre, 2 well stocked libraries for student to access reference materials. The fields are modern; we host national games. The infrastructure boosts the students' confidence and interaction.” KI 3*

*“Yes. .... It gives room for doing extra activities. For instance, the school has 3 labs where students do experiments, a library with Wi-Fi connection and lots of reference materials. Modern facilities in playing fields give students confidence.”*  
KI 4

*“Yes. ....However, the school has no laboratories, no library, no ICT infrastructure. One class is converted to lab during national examinations. Extra books which may serve as reference materials are kept by specific teachers.”* KI 5

*“Yes. ....Nonetheless, the school does not have any other infrastructure other than classes.”* KI 6

It can be deduced from these findings that school infrastructure played a crucial role in the academic achievements of students by boosting their confidence through interactions with other students and also according students the space and resources required by students to do their own extra learning. With adequate facilities such as laboratories, students could polish what they had learnt in class through practical sessions and demonstrations. These findings were in agreement with the sentiments of Nwaka and Ofojebe (2020) that though formal learning took place in a classroom, learners needed opportunities to conduct their personal studies or research in the facilities available in the school and hence, in this way, school infrastructure was very important in ensuring academic success.

The findings also agreed with that of Nyoni et al.(2017)who found that good academic performance was attributed to the availability of school buildings and other appropriate facilities which led to effective teaching and learning activities. The findings of this study were also in line with that of Kevin (2012)which showed that academic success was associated with adequate classrooms, properly stocked library, adequate science

laboratories, adequate sanitation, and improved participation in co-curricular activities. The study further supported the conclusion by Ndirangu et al.(2016)that academic and nonacademic dynamics such as physical facilities were viable and timely ingredients for sustainable and holistic educational development which were attested through satisfactory academic achievements.

#### **4.4.6.3 School Infrastructure Required in Order of Priority**

The results in Table 4.21 show the infrastructure needs in order of priority in the sampled schools as pointed out by the principals.

**Table 4.21: Infrastructure Required in the Sampled Schools in Order of Priority**

<b>School infrastructure needed</b>	<b>Frequency</b>	<b>Percent</b>
Construction of well-equipped science laboratories and stocked libraries	147	97.35
Additional classrooms and dormitories	141	93.38
Construction of computer labs/ICT centers	137	90.73
Acquire more land for creation and expansion of sporting fields	134	88.74
Decent social halls and conference rooms-multipurpose halls	109	72.19
Individual study rooms	104	68.87
Expanded staff quarters	103	68.21
Homescience room	89	58.94
Planting fields for agricultural students	85	56.29
Enough sanitation facilities-More washrooms/pit latrines	80	52.98
Study shades	77	50.99
Dining halls	69	45.70
Acquisition of school van/bus	60	39.74
Water storage facilities	53	35.10
Worship area/chapels	44	29.14
Enough stores	41	27.15
Modern playing fields	36	23.84

The findings presented in 4.21 show that 147 (97.35%) recommended the construction of well-equipped science laboratories and equipped libraries in their schools, 141(93.3%) noted that their schools required additional classrooms and dormitories, 137 (90.73%) indicated that their schools required computer laboratories/ICT centers, 134 (88.74%) stated that their school needed to acquire more land to enable the creation and expansion of sporting fields, 109 (72.19%) of the principals stated that their schools required decent social halls and conference rooms-multipurpose halls while 104 (68.87%) of the principals asserted that their schools required individual study rooms.

Expanded staff quarters, Home science rooms and planting fields for agricultural students were highlighted by 103 (68.21%), 89 (58.94%) and 85 (56.29%) of the principals respectively. The findings also reveal that 80 (52.98%) of the principals stated that their schools required more sanitation facilities (washrooms/pit latrines), study shades were mentioned by 77 (50.99%) of the principals, 69 (45.70%) of the principals stated that dining halls were a priority for their schools while 60 (39.74%) and 53 (35.10%) of the principals indicated that their school needed to acquire a school van/bus and water storage facilities respectively. Worship area/chapels, enough stores and modern playing fields were infrastructure required by different schools as indicated by 44 (29.14%), 41 (27.15%) and 36 (23.84%) of the principals respectively.

These findings indicate that secondary schools in Machakos County had diverse infrastructural needs and for many, the school infrastructure that needed to be prioritized was mainly well equipped science laboratories, stocked libraries, additional classrooms and dormitories, computer laboratories, multipurpose halls as well as individual study rooms and expanded staff quarters among others. The findings were in harmony with the

findings of Mokaya (2013) that improved academic achievement was associated with more adequate and well-spaced classrooms, adequate and ample spacing in the libraries, adequate science laboratories, adequate water and sanitation facilities and adequate participation in co-curricular activities. The study findings also supported the concerns by Fuzu (2014) that shortage of science laboratories and learning facilities witnessed in schools affected the performance of students. The findings further upheld the views of Amadi and Ezeugo (2019) that both students and teachers need facilities such as libraries, laboratories, good buildings, classrooms, good water supply, toilet facilities, security and others for teaching and learning to take place.

#### **4.4.7 Academic Performance of Secondary Schools in Machakos County**

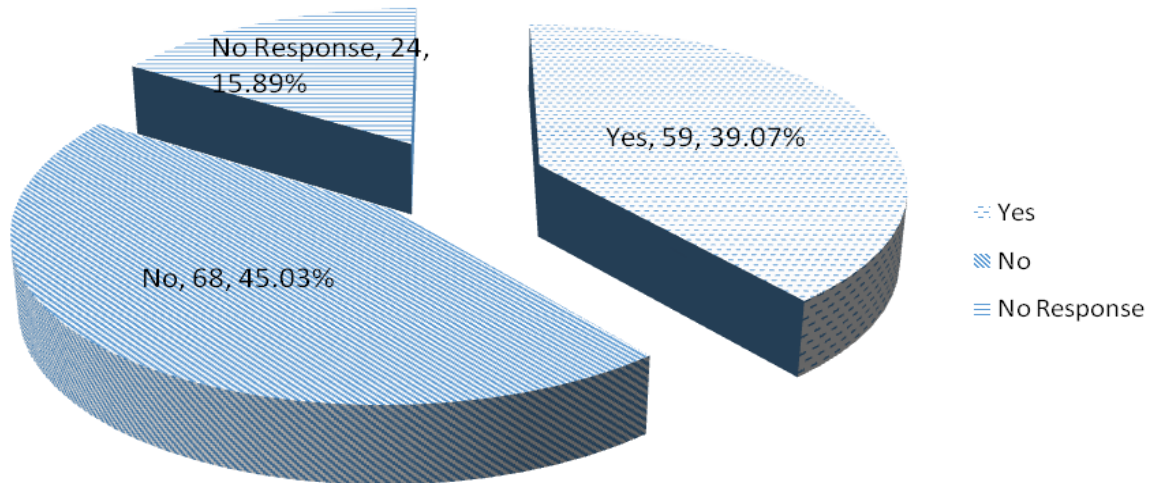
Descriptive analysis on academic performance of secondary schools in Machakos County was conducted. This was necessary in providing an overview of the performance of the schools. The findings obtained are presented in the following sub sections: -

##### **4.4.7.1 Overview of Academic Performance of Sampled Schools**

The principals were asked to indicate whether their schools performed well in K.C.S.E examination. The findings provided in Figure 4.8 reveal that 59 (39.07%) of the principals indicated that their schools performed well, 68 (45.03%) argued that their schools did not perform well while 24 (15.89%) of the principals did not specify whether their schools performed or did not perform well in K.C.S.E examination. From these findings, it can be argued that the performance of secondary schools in Machakos County was varied. It was also evident that the performance of quite a large proportion of these schools was wanting or unsatisfactory. These findings were in line with the data provided



by the Machakos County Director of Education Office 2013 to 2019 which showed that most secondary schools in the county performed below expectations based on different metrics.



**Figure 4.8: Whether the School Performed Well**

The key informants’ opinion about the academic performance of their schools was also sought. From the responses given, KI 1 and KI 4 indicated that the performance of their schools was excellent. KI 3 stated that even though their school’s academic performance was good, much more was required to improve it. The rest of the key informants noted that their schools’ academic performance was not good. The following is their response: -

*“The performance is excellent; students do their part while the teachers are committed. There is very minimal external interference.” KI 1 ..... “The performance is excellent; it has been consistent.” KI 4.*

*“The performance is good and can be improved further. However, we may not be able to push all those with low entry behaviour to perform well.” KI 3.*

*“It is not good for a National School but there is room for improvement.” KI 2  
..... “The performance is not good and needs improvement” KI 5 ..... “The  
performance is not good; students can do well; they have the potential” KI 6*

These views by the key informants confirm the observations made by the principals during the survey that the performance of several secondary schools in Machakos County was not satisfactory.

#### **4.4.7.2 Aspects of Academic Performance**

The principals’ reaction to various statements relating to the academic performance of their schools was sought and their responses are summarized using mean and standard deviation computed for each statement as shown in Table 4.22. The study findings revealed that on average, the principals disagreed that most of their students qualified for prestigious courses’ (for example law, engineering) university entry grades given a mean of responses of 2.311 and standard deviation of 1.276. Equally, the principals on average disagreed that their schools were ranked among the top best performing schools in the county given a mean of responses of 2.325 and standard deviation of 1.324.

The study findings also showed on average, the principals disagreed that their schools were ranked among the top best performing schools in the county given a mean of responses of 2.424 and standard deviation of 1.339. The principals on average further disagreed that most of their students attained university entry mean grade C+ and above as supported by mean of responses of 2.437 and standard deviation of 1.192. The composite mean of responses of 2.374 implied that on average, the principals disagreed

with most of the statements presented on academic performance and that their responses were varied as shown by a standard deviation of 1.104.

**Table 4.22: Aspects of Academic Performance**

Statements	N	Mean	Standard Deviation
Most of our students qualify for prestigious courses (for instance law, engineering) university entry grades.	151	2.311	1.276
The school is ranked among the top best performing schools in the county.	151	2.325	1.324
The overall mean score of the school is above 5.	151	2.424	1.339
Most of our students attain university entry mean grade C+ and above.	151	2.437	1.192
<b>Composite mean and standard deviation</b>		<b>2.374</b>	<b>1.104</b>
<b>Valid N</b>	<b>151</b>		

The above findings are a demonstration that the performance of secondary schools in Machakos County on average was not satisfactory. The findings suggested that the sampled schools had not done well in producing candidates with university entry grades that enabled them to qualify for prestigious courses and warrant the ranking of their

schools among the top best performers in the county. It can also further be stated that the overall mean score for most secondary schools in Machakos County was below 5 and most of the students in these schools did not the required university entry mean grade of C+ and above. Thus, the management of the secondary schools in Machakos County had much to do to realize improvement in the academic performance in their schools. These findings resonate well with the data provided by the County's Director of Education Office for the period 2013 to 2019 which showed that only a few students attained grade C+ and above. According to the data, few schools also attained a mean of index 5 and above out of the expected highest mean of index 12 for that period and that the county's mean for the same period had been below 5 out of the expected 12 and was constantly on the decline.

#### **4.4.7.3 Key Informants Responses on the Academic Performance of their Schools**

The key informants were asked to state the highest mean score for their schools for the past 6 years and the findings are summarized in Table 4.23. The findings provided in Table 4.22 showed that for most of these schools, the highest mean score for the past 6 years was realized in 2015. The findings demonstrate that there was a very large performance gap between the best performer and the worst performers, that is, a mean score of 10.06 vs. 2.44 and 2.456.

**Table 4.23: Highest Mean Score for the School for the Past 6 years**

No.	Participant	Mean Score	Year
1	KI 1	8.41	2015
2	KI 2	7.81	2015
3	KI 3	9.463	2015
4	KI 4	10.06	2015
5	KI 5	2.44	2013
6	KI 6	2.456	2015

The key informants were also asked whether there were students from their schools who had qualified to join the university in the last 6 years. From the responses given, 4 out of the 6 KIs indicated that in deed, there were students that had qualified to join university from their schools for the past 6 years. Table 4.24 summarizes the number of qualifying students and the courses the students enrolled in as indicated by the key informants. The findings demonstrate that national and also best performing public and private secondary schools in Machakos County were able to produce a large number of candidates who qualified for enrollment in different university courses while for low-performing schools, the best grades obtained were way below the required threshold for admission to universities. Hence, no candidate from these schools qualified for enrolment to University. This demonstrates that HRM practices and school infrastructure were adequately in place for the well performing schools and that the practices were not in place for the low performing schools.

**Table 4.24: Students who have qualified for University in the Last 7 Years**

No.	Participant	Prestigious courses	Number of qualifying students	Courses Enrolled in
1	KI 1	Yes	Over 80% per year	Most of them enroll in prestigious courses namely law, medicine, engineering
2	KI 2	Yes	Very many-2019(29), 2018 (30), 2017 (20), 2016 (25), 2015(35), 2014 (35), 2013(35)	Mainly art based (over 50%), a few in law, engineering and teaching
3	KI 3	Yes	Over 90% of students each year. They score C+ and above	-
4	KI 4	Yes	Very many-2019(20) 2018 (40), 2017 (35), 2016 (43), 2015(50), 2014 (45), 2013(40)	Information Technology (IT), law, engineering, medicine locally and internationally
5	KI 5	No	Nearly all students score a C+ and above	-
6	KI 6	No	Most students do not achieve above D. Most of the times, the best grade attained is D.	-
			The best grade attained is D	-

#### **4.4.7.4 Reasons for Good Academic Performance**

Table 4.25 provides a summary of the reasons for good performance as highlighted by the principals who stated that their schools performed well in KCSE. The findings show that 55 (93.22%) of the principals associated good academic performance in their schools to commitment and efforts of teachers and students, 51 (86.44%) linked the performance to availability of textbooks and revision materials, 47 (79.66%) cited early syllabus coverage which allowed for enough time for revision, 46 (77.97%) of the principals attributed the performance to disciplined teachers and students, while 43 (72.88%) and 41 (69.49%) of the principals noted that good performance in their schools was a result of fair entry behaviors and adequate and competent staff respectively.

As stated by 41 (69.49%) of the principals, good academic performance in their schools resulted from teacher motivation, 38 (64.41%) associated the performance to focused, hardworking and motivated students, 34 (57.63%) linked it to goal/target setting, 34 (57.63%) of the principals cited team spirit among teachers (working towards a common goal) while 29 (49.15%) and 25 (42.37%) of the principals argued that adequate infrastructure and good teaching methods explained the good academic performance of their schools. Extra learning time was highlighted by 22 (37.29%) of the principals.

Exposure of students to standard exams and good school management depicted by the support accorded to teachers by the BOM and PTA was singled out as reasons for good academic performance in KCSE examination by 21 (35.59%) and 14 (23.73%) of the principals respectively. The findings further show that good relationship between teachers, students and other stakeholders was recognized as reason for good academic

performance by 11 (18.64%) of the principals. Students' positive attitude towards education was recognized by 10 (16.95%) of the principals while 9 (15.25%) and 7 (11.86%) of the principals noted that friendly school environment and history of school were reasons for good academic performance in their schools respectively.

The findings given in Table 4.25 suggested that a combination of different factors contributed to the good academic performance in the secondary schools in Machakos County. Apart from human resource management related factors such as adequate and competent teaching staff who were highly committed and motivated, student related factors for instance, fair entry behaviours and discipline coupled with school based factors among them adequate/good infrastructure or facilities and good school management contributed to good performance in these secondary schools. These findings resonate with conclusion by Olufemi and Olufemi (2018) that students related factors, parental background, school factors as well as teachers' factors have serious influence on students' academic performance.



**Table 4.25: Reasons for Good Academic Performance**

<b>Reasons given</b>	<b>Frequency</b>	<b>Percent</b>
Commitment and efforts of teachers and students	55	93.22
Availability of textbooks and revision materials	51	86.44
Early syllabus coverage allowing for enough time for revision	47	79.66
Disciplined teachers and students	46	77.97
Fair entry behaviours	43	72.88
Adequate and competent staff	41	69.49
Teacher motivation	41	69.49
Focused, hardworking and motivated students	38	64.41
Goal/target setting	34	57.63
Team spirit among teachers-working towards a common goal	34	57.63
Good infrastructure/facilities	29	49.15
Good teaching methods	25	42.37
Extra learning time	22	37.29
Exposure of students to standard exams	21	35.59
Good school management (management support from BOM, PTA)	14	23.73
Good teacher, student and other stakeholders' relationships	11	18.64
Students positive attitude towards education	10	16.95
Friendly school environment	9	15.25
History of school	7	11.86

#### **4.4.7.5 Reasons for Poor Academic Performance**

The factors that contributed to poor performance as pointed out by the principals who argued that the performance of their schools in KCSE examinations was unsatisfactory are outlined in Table 4.26. The findings revealed that 63 (92.65%) of the principals attributed low performance of their schools to enforced transition (government policy of 100% transition) which led to poor entry behavior, 60 (88.24%) decried of lack of adequate and competent teaching staff, 57 (83.82%) of the principals linked this performance to lack of adequate and proper infrastructure/facilities particularly laboratories, libraries, classrooms while 54 (79.41%) cited the lack of teacher motivation as a cause of poor performance.

Home related factors more so poverty was recognized as a reason for poor performance by 48 (70.59%) of the principals as it contributed to most students being send home for school fees and thus missing classes. Lack of full concentration specifically in day schools, lack of seriousness or focus among students and poor attitude towards education by students leading to laziness and absenteeism were highlighted as catalysts for poor performance by 46 (67.65%), 45 (66.18%) and 41 (60.29%) of the principals respectively. Low self-esteem among students, poor reading culture and lack of management and stakeholder support were factors that contributed to low performance among some of the sampled schools as stated by 36 (52.94%), 33 (48.53%) and 28 (41.18%) of the principals respectively.

**Table 4.26: Reasons for Poor Academic Performance**

<b>Reasons given</b>	<b>Frequency</b>	<b>Percent</b>
Enforced transition policy leading to poor entry behaviour	63	92.65
Lack of adequate and competent teaching staff	60	88.24
Lack of adequate and proper infrastructure/facilities	57	83.82
Lack of teacher motivation	54	79.41
Home related factors-poverty-student sent home for fees and thus miss classes	48	70.59
Lack of full concentration (day school)	46	67.65
Lack of seriousness/focus among students	45	66.18
Poor attitude towards education by students leading to laziness	41	60.29
Low self-esteem among students	36	52.94
Poor reading culture	33	48.53
Lack of management and stakeholder support	28	41.18

The above findings as well imply that poor academic performance in the secondary schools in Machakos County could be explained by different issues related to Hrm practices such as inadequate teaching staff and students, school based factors as well as government policies on education. The leading causes of dismal academic performance in these schools were enforced government policy on 100% transition which resulted to

poor entry behavior, inadequate competent teachers, lack of adequate and proper basic school infrastructure as well as poor teacher motivation among other factors. These findings are consistent with the observations by Karue and Amukowa (2013) that unfavorable home environments and family backgrounds, lack of reading materials, bad company, lack of proper accommodation, chronic absenteeism emanating from lack of school fees, admission of weak students at form one entry, inadequate instructional materials and physical facilities were some of the factors that contributed to low academic performance of students in secondary schools. The findings also supported that of Komba et al. (2013) who discovered that limited number of teachers per subject, lack of conducive teaching and learning environment, employment of unqualified teachers, poor classroom attendance by teachers, shortage of reliable libraries and laboratories were challenges that affected academic performance.

#### **4.4.7.6 Key Informants Responses on Why Students Do or Do Not Attain Good Results**

The key informants' responses as to why students do or do not attain good results are summarized in Table 4.27. From the responses given, KI 1 noted that students in their school were able to perform well since the values of integrity and excellence had been instilled among students and that teachers closely monitored their students on a daily basis. KI 2 on their part attributed good performance in their school to good entry scores as well as motivation and focus among students leading to hard work especially after the school attained the National status. For KI 3, the students in their school were able to attain good results due to good entry scores, coupled with excellent human resource

available for structured teaching and revision programs, peer teaching, early syllabus coverage and their motivation to compete amongst themselves.

The results also show that KI 4 attributed good academic results to student motivation, good entry behavior, history and culture of the school, conducive and competitive learning environment, early syllabus coverage and increased teacher student consultations. KI 5 on the other hand decried that students in their school attained poor results due to lack of focus/motivation, poor entry scores/behavior, indiscipline and lack of parental commitment. The views of KI 5 were reiterated by KI 6 whose school was the worst performing. KI 6 noted that students in their school did not attain good grades due to lack of motivation and focus with students simply going to school to pass time and also lack of parental follow up.

The responses of the key informants are in line with the views of the principals involved in the survey. Their responses confirm that in deed, the academic performance of students in secondary schools in Machakos County is a function of different factors or issues related to the availability of human resources, mainly teachers, physical infrastructure and also student and school related dynamics. The findings also demonstrate that for the best performing schools, based on the responses of KI 1, KI 2, KI 3 and KI 4, the interaction of student and human resources mainly teachers explained good student performance, while for low performers, student and parent related issues contributed greatly to the low grades attained by students in these schools.

**Table 4.27: Key Informants Responses on Why Students Do or Do Not Attain Good Results**

No.	Participant	Response
1	KI 1	<p>Christian values, we teach values of integrity and excellence</p> <p>Close monitoring of students on a daily basis</p> <p>Motto of the school “Excellence Pays”</p> <p>Good entry scores</p>
2	KI 2	<p>Motivated and focused students right who know what they want in life</p> <p>Since the school attained National status, students work extra hard</p> <p>Good entry scores although those from marginalized areas scored 250 marks</p> <p>Excellent structured teaching and revision programs (Weak or slow learners receive extra teaching, students’ work is always marked, feedback given and more exams administered to students)</p> <p>Peer teaching is also done right from Form 1</p> <p>Early syllabus coverage is emphasized to ensure more time for exams, develop students’ confidence in exams</p>
3	KI 3	<p>Students are motivated to compete amongst themselves</p> <p>Motivated students</p> <p>Good entry scores and behavior</p> <p>History and culture of the school</p> <p>Conducive and competitive learning environment</p> <p>Early syllabus coverage</p>
4	KI 4	<p>Increased teacher student consultations</p> <p>Students are not focused/motivated</p> <p>Poor entry scores and behaviour</p> <p>Indiscipline among students</p>
5	KI 5	<p>Lack of parental commitment</p> <p>Students are not motivated</p> <p>Lack of focus, students simply at school to pass time</p>
6	KI 6	<p>Lack of parental follow up</p>

#### **4.4.7.7 Measures to Enhance Academic Performance in Schools**

Measures that can be instituted to enhance academic performance in the sampled schools as noted by the principals are displayed in Table 4.28. The findings showed that 13 (94.70%) of the principals called for employment of adequate and skilled teachers, 134 (88.74) emphasized on completing the syllabus on time, 126 (83.44%) noted that teachers should be motivated to work extra hours through proper compensation, 123 (81.46%) of the principals noted that adequate teaching and revision materials was necessary while 121 (80.13%) and 110 (72.85%) of the principals called for improved school facilities and organized teaching practices respectively. The study results also show that 98 (64.90%) of the principals noted that teachers should be encouraged to be more focused, 87 (57.62%) called for improve student discipline, 83 (54.67%) recommended annual benchmarking with performing schools, 76 (50.33%) of the principals suggested that the enforced transition policy should be revisited in order to improve entry behaviour, 73 (48.34%) called for more exposure of teachers to subject workshops while 72 (47.68%) and 60 (39.74%) of the principals suggested that equal training opportunities for teachers and extra coaching of students should be prioritized.

Improved teacher mentorship programmes was recommended by 59 (39.07%) of the principals. It was also noted by 52 (34.44%) of the principals that positive attitude towards education among students should be encouraged. In-house subject clinics for teachers, cooperation among stakeholders and involvement of all parties in decision making was highlighted by 51 (33.77%), 44 (29.14%) and 41 (27.15%) of the principals respectively. Hosting examiners, housing for all teachers, well informed ministry policies, parental involvement and change of day schools to boarding schools were

suggested by 37 (24.50%), 32 (21.19%), 29 (19.21%), 21(13.91%) and 14 (9.27%) of the principals respectively. These findings demonstrated that there were several human resource management measures that the management of secondary schools in Machakos County could take to improve the academic performance in their schools. The measures taken needed to address different issues touching on the teaching staff, students, the schools infrastructure in general as well as government policies.



**Table 4.28: Measures to Enhance Academic Performance in Schools**

<b>Suggested measures</b>	<b>Frequency</b>	<b>Percentage</b>
Employment of adequate and skilled teachers	143	94.70
Complete syllabus on time	134	88.74
Motivate teachers to work extra hours through proper compensation	126	83.44
Adequate teaching and revision materials	123	81.46
Improved school facilities	121	80.13
Organized teaching practices	110	72.85
Encourage teachers to be more focused	98	64.90
Improve student discipline	87	57.62
Annual benchmarking with performing schools	83	54.97
Improve entry behavior/ Revisit enforced transition policy	76	50.33
More exposure of teachers to subject workshops	73	48.34
Equal training opportunities for teachers	72	47.68
Extra coaching of students	60	39.74
Improved teacher mentorship programs	59	39.07
Encourage positive attitude towards education among students	52	34.44
In-house subject clinics for teachers	51	33.77
Cooperation among stakeholders	44	29.14
Involvement of all in decision making	41	27.15
Hosting examiners	37	24.50
Housing for all teachers	32	21.19
Well informed ministry policies	29	19.21
Parental involvement	21	13.91
Change school to boarding	14	9.27

## **4.5 Model Assumptions Tests**

Before estimating the different models in this study, various diagnostic tests were conducted. These tests were necessary in checking whether the assumptions of the ordinary linear regression model were met or not. This assisted in reducing the risks of obtaining biased, inefficient, and inconsistent parameter estimates. In this study, the normality test, multicollinearity test and linearity test were conducted.

### **4.5.1 Test for Normality**

The normality of the data was tested using the Kolmogorov-Smirnov test. The rule of the thumb was that the null-hypothesis of a normal distribution should not be rejected when the Kolmogorov-Smirnov p-values for the study variables were greater than 0.05. The results obtained as shown in Table 4.29 indicate that the data related to each of the independent variables was normally distributed as the significance values for all these cases were greater than 0.05. However, normal distribution was assumed for academic performance variable in line with the central limit theorem (CLT) which argues that methods which assume a normal distribution can be used for data that is not originally normally distributed as long as the sample used comprises of 30 observations or more.

**Table 4.29: Normality Test Results**

<b>Variable</b>	<b>Statistic</b>	<b>Df</b>	<b>Sig.</b>
Recruitment and selection of teaching staff	1.450	151	0.130
Teaching staff training and development	1.245	151	0.090
Teaching staff compensation	1.347	151	0.053
Teaching staff safety	1.239	151	0.093
School infrastructure	1.032	151	0.237
Academic performance	2.055	151	0.000

The scatter plots of the relationship between the dependent and independent variables are displayed in Figures 4.9-4.12.

#### **4.5.2 Test for Multicollinearity**

The results presented in Table 4.30 were crucial in aiding the determination as to whether the data suffered from multicollinearity issues by evaluating the VIF values. The assumption for multicollinearity is that, when the VIF value lies between 1 and 5, then there is no multicollinearity (Tamrat, 2017). Given that all the VIF values associated with each of the independent variables were less than 5, it was concluded that there was no case of multicollinearity among the independent variables in this study.

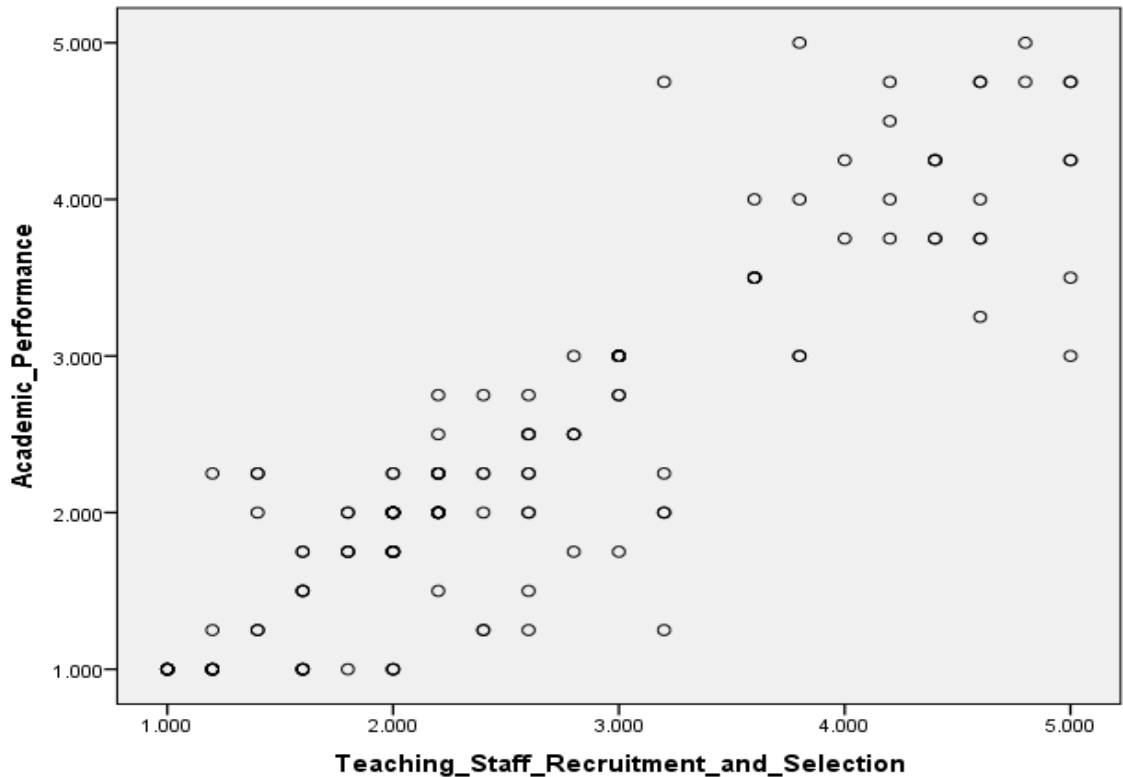
**Table 4.30: Multicollinearity Test Results**

<b>Variable</b>	<b>VIF</b>	<b>1/VIF (Tolerance)</b>
Recruitment and selection of teaching staff	2.044	0.489
Teaching staff training and development	2.193	0.456
Teaching staff compensation	1.739	0.575
Teaching staff safety	2.265	0.442

### **4.5.3 Tests of Linearity**

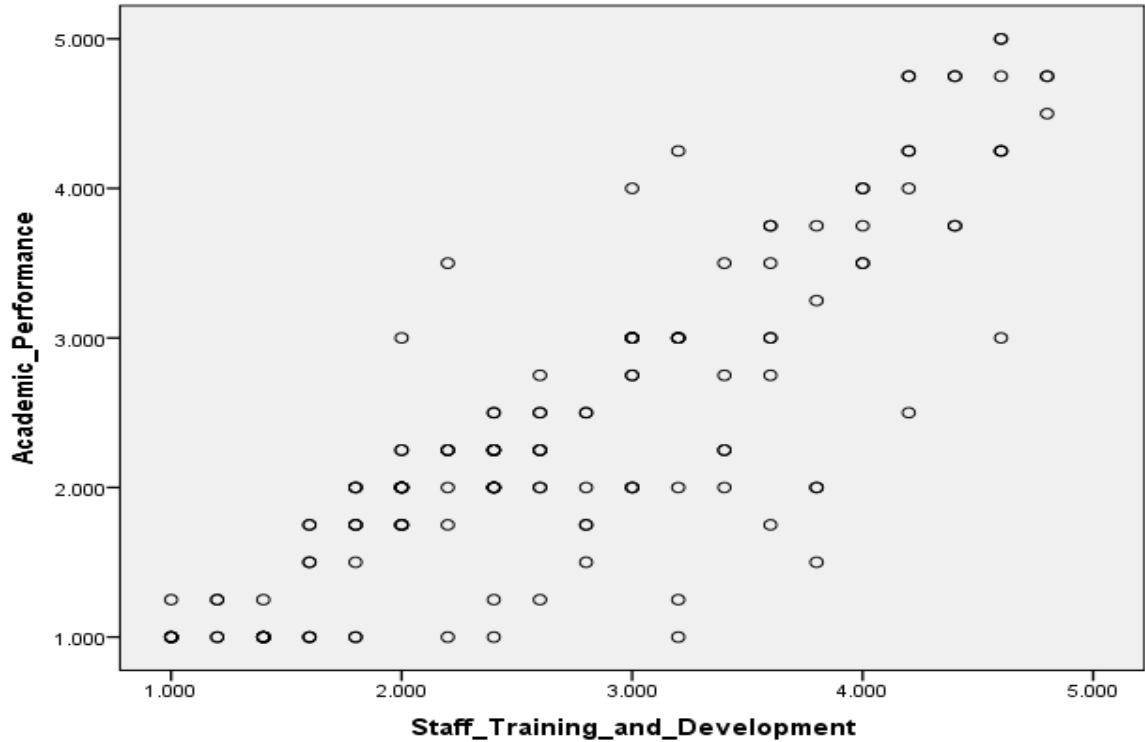
Ordinary linear regression assumes that there is a linear relationship between the dependent variable and the independent variables. If the relationship between the dependent variable and the independent variables is not linear, the results of the regression analysis will underestimate the true relationship. Consequently, the linearity test was conducted to determine if the relationship between a given independent variable (teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation as well as teaching staff safety) and the academic performance of secondary schools in Machakos County was linear or not. Scatter plots were used to test for linearity and to visually show whether there was a linear or curvilinear relationship between two continuous variables before carrying out the regression analysis.

From the above scatter plot, it can be seen that there was a positive linear relationship between academic performance in secondary schools in Machakos County and the recruitment and selection of teaching staff since the data points fairly seem to follow a straight trend line going from the origin out to high x-and y-values, that is, the data points appeared to be arranged in the shape of an oval.



**Figure 4.9: Scatter Plot for the Relationship between Recruitment and Selection of Teaching Staff and Academic Performance**

The pictorial presentation in Figure 4.10 also shows that a positive linear relationship existed between academic performance and teaching staff training and development in secondary schools in Machakos County. This is because the data points tend to assume an oval shape.

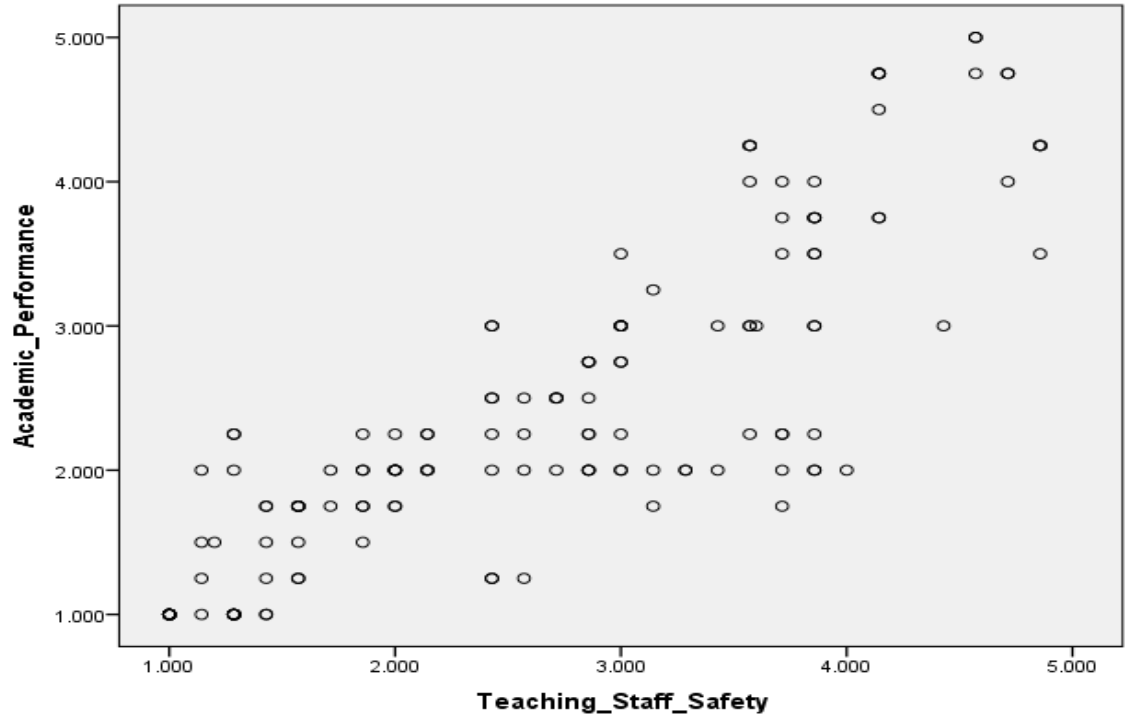


**Figure 4.10: Scatter Plot for the Relationship between Teaching Staff Training and Development and Academic Performance**

Similarly, the scatter plot provided in Figure 4.11 tends to give a pretty good indication that a positive linear relationship existed between academic performance and teaching staff compensation in the secondary schools in Machakos County.

**Figure 4.11: Scatter Plot for the Relationship between Teaching Staff Compensation and Academic Performance**

The linearity results diagrammatically presented in Figure 4.12 also show a fair positive linear relationship between academic performance of secondary schools in Machakos County and teaching staff safety.



**Figure 4.11: Scatter Plot for the Relationship between Teaching Staff Safety and Academic Performance**

Overall, these linearity test results showed that the data set was exhibiting a linear pattern hence linear regression modeling could be conducted to show the relationship between human resource management practices under study and academic performance of secondary schools in Machakos County.

#### **4.6 Correlation Analysis**

Correlation analysis was conducted to determine the nature of association between recruitment and selection of teaching staff, staff training and development, staff compensation, staff safety and school infrastructure and the academic performance of secondary schools in Machakos County, Kenya. Pearson correlation coefficients which ranges from -1 to 1 were computed in this case. The strength, direction and significance of the correlation/association between the variables was assessed. The strength of the Pearson's correlation coefficients is interpreted using the criteria provided by Sedgwick (2012) as follows: +/-0.00 to +/-0.19 is very weak, +/- 0.20 to +/-0.39 is weak, +/-0.40 to +/-0.59 is moderate, +/-0.60 to +/-0.79 is strong while +/-0.80 to +/-1.0 is very strong. The significance of the correlation was assessed at the 95% confidence level or the 0.05 significance level (probability value). The rule of the thumb was that a calculated p value less than the critical p value of 0.05 for this study implied that the correlation between the variables was significant and vice versa. The results are given in Table 4.31.



**Table 4.31: Correlation Matrix**

		<b>Academic Performa nce</b>	<b>Recruitmen t And Selection of Teaching Staff</b>	<b>Staff Training And Developme nt</b>	<b>Staff Compensati on</b>	<b>Staff Safety</b>	<b>School Infrastruct ure</b>
Academic Performanc e	Pearson Correlation Sig. (2- tailed)N	1 151					
Recruitment and Selection of Teaching staff Staff	Pearson Correlation Sig. (2- tailed) N	.748** 0.000 151	1 151				
Training and Developme nt Staff	Pearson Correlation Sig. (2- tailed) N	.771** 0.000 151	.624** 0.000 151	1 151			
Compensati on Staff Safety	Pearson Correlation Sig. (2- tailed) N	.797** 0.000 151	.591** 0.000 151	.530** 0.000 151	1 151		
Staff Safety	Pearson Correlation Sig. (2- tailed) N	.727** 0.000 151	.618** 0.000 151	.689** 0.000 151	.571** 0.000 151	1 151	
School Infrastructur e	Pearson Correlation Sig. (2- tailed) N	.729** 0.000 151	.520** 0.000 151	.618** 0.000 151	.574* 0.000 151	.532** 0.000 151	1 151

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

The findings as presented in Table 4.31 show that there was a strong, positive and significant correlation between the academic performance of secondary schools in Machakos County and the recruitment and selection of teaching staff ( $r=0.748, p=0.000$ ). Teaching staff training and development and the academic performance of secondary schools in Machakos County were also positively and significantly correlated ( $r=0.771, p=0.000$ ). The association between the two variables was strong. The study also found that teaching staff compensation and academic performance of secondary schools in Machakos County were positively and significantly correlated and that their association was strong as ( $r=0.797, p=0.000$ ).

A strong positive and significant correlation also existed between teaching staff safety and the academic performance of the sampled secondary schools ( $r=0.727, p=0.000$ ). The results further demonstrated that school infrastructure and academic performance of secondary schools in Machakos County were positively and significantly correlated as supported by ( $r=0.729, p=0.000$ ). The correlation between the two variables was also found to be strong. It can therefore, be inferred that the recruitment and selection of teaching staff, staff training and development, staff compensation, staff safety and school infrastructure and the academic performance of secondary schools in Machakos County changed in the same direction.

The above findings support the argument by Faizuddin (2018) that HRM practices were aimed at improving the overall performance of employees which ultimately resulted to increased organizational performance. The findings also agreed with the views of Namusonge et al., (2015) that when employees were managed effectively through consistent practices, they were able to act flexibly in pursuit of organizational excellence.

The findings further supported that of Bryson et al.(2018)who found that HRM practices were correlated with substantial improvement in schools’ academic performance and workplace.

#### **4.7 Regression Analysis and Hypothesis Testing**

Regression analysis was conducted so as to quantify the influence of human resource management practices under study (teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation, teaching staff safety) on the academic performance of secondary schools in Machakos County. The individual effect of each of the HRM practice was assessed by conducting bivariate regression analyses. Finding out the isolated effect of each human resource management practice on the academic performance of the schools under study was crucial given the fact that the effectiveness of each HRM practice in influencing academic performance of secondary schools was quite different. A multiple regression analysis on the other hand, was conducted to show the combined effect of the four HRM practices on the academic performance of secondary schools in Machakos County. All tests conducted at the 0.05 level of significance.

##### **4.7.1 Influence of Recruitment and Selection of Teaching Staff on Academic Performance**

Regression analysis was carried out to determine the nature of the relationship between the recruitment and selection of teaching staff and the academic performance of secondary schools in Machakos County. A bivariate linear regression model was used to quantify the influence of recruitment and selection of teaching staff in the sampled

schools on their academic performance. In this case, the mean of responses for academic performance of secondary schools in Machakos County for all respondents were regressed against the mean of responses for recruitment and selection of teaching staff in these schools for all the respondents as well. The following hypothesis was formulated and tested;

**H<sub>01</sub>:** Recruitment and selection of teaching staff has no significant influence on the academic performance of secondary schools in Machakos County.

From the bivariate regression analysis conducted, three outputs were generated as shown in Table 4.32.

**Table 4.32: Recruitment and Selection of Teaching Staff and Academic Performance**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.748a	0.560	0.557	0.735686

a Predictors: (Constant), Recruitment and Selection of Teaching Staff

<b>ANOVAa</b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	102.465	1	102.465	189.31	.000b
	Residual	80.644	149	0.541		
	Total	183.109	150			

a Dependent Variable: Academic Performance

b Predictors: (Constant), Recruitment and Selection of Teaching Staff

<b>Coefficientsa</b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1	(Constant)	0.490	0.149		3.276	0.001
	Recruitment and Selection of Teaching Staff	0.659	0.048	0.748	13.759	0.000

a Dependent Variable: Academic Performance

#### **4.7.1.1 Model Summary**

The model summary results provided by the first output in Table 4.32 showed that recruitment and selection of teaching staff explained a considerable proportion of the variance in the academic performance of secondary schools in Machakos County. This finding is supported by the coefficient of determination or R Square of 0.560 which implied that 56.0% of the changes in the academic performance of secondary schools under study were attributed to changes in the recruitment and selection of teaching staff in these schools. The rest of the changes, 44.0%, in the academic performance of these schools were therefore, linked to other variables.

#### **4.7.1.2 Goodness of Fit**

The model fitness results presented as the second output in Table 4.32 were also evaluated in order to determine the significance of the model that was used to show the relationship between the recruitment and selection of teaching staff and the academic performance of secondary schools in Machakos County. The aim was to check whether the model fit the data used or how well it would predict a future set of observations. The calculated F statistic and its associated  $p$  value (significance value) were assessed where a  $p$  value less than 0.05 was an indication that the model was significant, otherwise insignificant. The findings obtained, therefore, showed that the model used was statistically significant in predicting the relationship between the two study variables given ( $F=189.318, p=0.000, p<0.05$ ).

#### 4.7.1.3 Regression Coefficient

The third output in Table 4.32 showed the regression estimate ( $\beta$  coefficient) computed that assisted in determining if recruitment and selection of teaching staff significantly influenced the academic performance of secondary schools in Machakos County by observing its associated  $t$  statistic and  $p$  value. The findings demonstrated that recruitment and selection of teaching staff had a positive significant influence on the academic performance of secondary schools in Machakos County given ( $\beta = 0.659$ ,  $t = 13.759$ ,  $p = .000$ ,  $p < 0.05$ ). These results meant that a unit improvement in the recruitment and selection of teaching staff would result to improved academic performance of secondary schools in Machakos County by 0.659 units when all other factors were held constant. Given that the calculated  $p$  value was  $0.000 < 0.05$ , null hypothesis was thus rejected and an inference made that the recruitment and selection of teaching staff had a significant influence on the academic performance of secondary schools in Machakos County.

These findings compare with the sentiments of two of the KIIs (KI 1 and KI 4) who noted that this teaching staff recruitment and selection influenced academic performance. However, they are inconsistent with the views of KI 2, KI 3, KI 5 and KI 6 who argued that this HRM practice may not influence academic performance. With regards to previous studies, the findings were in support of the observation by Priya and Sundaram (2016) that performance improvement in organizations depended not only on well-functioning systems but also HRM strategies that resulted to the recruitment and retention of a committed and motivated workforce. The findings were also consistent with that of Kephayet al. (2015) who singled out recruitment and selection of staff as a major HRM

practice that could influence organizational performance by impacting the level of employee performance in organizations. Based on the regression estimates generated, the following optimal model was fitted;

$$Y = 0.490 + 0.659 X_1$$

Where  $Y$  = Academic performance in Machakos County and  $X_1$  is Recruitment and selection of teaching staff

#### **4.7.2 Influence of Teaching Staff Training and Development on Academic Performance**

The relationship between staff training and development and academic performance of secondary schools in Machakos County was also assessed by conducting a bivariate regression analysis. The mean of responses for academic performance of the sampled secondary schools were regressed against the mean of responses regarding teaching staff training and development for all the principals. A bivariate linear regression model was thus applied in establishing the influence of staff training and development on academic performance of secondary schools in Machakos County. The following hypothesis was for this reason tested:

**H<sub>02</sub>:** Teaching staff training and development has no significant influence on the academic performance of secondary schools in Machakos County.

The results obtained are summarized in Table 4.33.



**Table 4.33: Teaching Staff Training and Development and Academic Performance**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.771a	0.595	0.592	0.705403

a Predictors: (Constant), Teaching Staff Training and Development

<b>ANOVAa</b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	108.968	1	108.968	218.99	.000b
	Residual	74.141	149	0.498		
	Total	183.109	150			

a Dependent Variable: Academic Performance

b Predictors: (Constant), Teaching Staff Training and Development

<b>Coefficientsa</b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>
1	(Constant)	0.170	0.160		1.063	0.289
	Teaching Staff Training and Development	0.809	0.055	0.771	14.798	0.000

a Dependent Variable: Academic Performance

#### **4.7.2.1 Model Summary**

The model summary results presented in Table 4.33 showed that the coefficient of determination associated with teaching staff training and development in the sampled schools was 0.595. These results meant that staff training and development explained 59.5% of the changes in the academic performance of secondary schools in Machakos County. The rest of the variation in the performance of these schools, 40.5%, were attributable to other variables.

#### **4.7.2.2 Goodness of Fit**

The findings outlined in Table 4.33 also show that the model used in showing the link between staff training and development and academic performance of secondary schools in Machakos County was statistically significant, that is, the model fit the data used well. This was supported by  $F(1, 149) = 218.99, p = .000$ . It can also be inferred from these findings that staff training and development was an adequate predictor of the academic performance of secondary schools in Machakos County.

#### **4.7.2.3 Regression Coefficient**

The results in third output in Table 4.33 demonstrated that the academic performance of secondary schools in Machakos County was positively and significantly affected by teaching staff training and development as illustrated by ( $\beta = 0.809, t = 14.798, p = .000$ ). The implication of the findings was that a unit increase in staff training and development would lead to increased academic performance of secondary schools in Machakos County by 0.809 units holding all other factors constant. Hence, since the p value

computed was 0.000 which was less than 0.05, the null hypothesis was rejected and an inference made that staff training and development significantly influenced the academic performance of secondary schools in Machakos County. These findings were consistent with that of Rahman et al. (2011) which revealed that teacher training and development affected students' academic performance by supporting effective teaching. The findings were also congruent with that of Tahiret al.(2014) which demonstrated that training and development significantly enhanced the performance and overall productivity of employees which yielded better organizational performance.

With the regression coefficient results, the following model was fitted in this case;

$$Y = 0.170 + 0.809 X_2$$

Where;  $Y$ =Academic performance of secondary schools in Machakos County and  $X_2$ =Teaching staff training and development

#### **4.7.3 Influence of Teaching Staff Compensation on Academic Performance**

Regression analysis was carried out to determine the kind of relationship that existed between staff compensation and academic performance of secondary schools in Machakos County. The objective was to quantify the influence that staff compensation had on the academic performance of these schools. The mean of responses on academic performance for all the principals were regressed against the mean of responses on teaching staff compensation. To this end, the following null hypothesis was tested;

**H<sub>03</sub>:** Teaching staff compensation has no significant influence on the academic performance of secondary schools in Machakos County.

The results are provided in Table 4.34.

**Table 4.34: Teaching Staff Compensation and Academic Performance**

<b>Model Summary</b>						
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>		
1	.797a	0.635	0.632	0.669898		
a Predictors: (Constant), Teaching Staff Compensation						
<b>ANOVAa</b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	116.244	1	116.244	259.031	.000b
	Residual	66.866	149	0.449		
	Total	183.109	150			
a Dependent Variable: Academic Performance						
b Predictors: (Constant), Teaching Staff Compensation						
<b>Coefficientsa</b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1	(Constant)	0.036	0.155		0.229	0.819
	Teaching Staff Compensation	0.825	0.051	0.797	16.094	0.000
a Dependent Variable: Academic Performance						

#### **4.7.3.1 Model Summary**

The results presented in Table 4.34 show that staff compensation was linked to 63.5% of the variation in academic performance of secondary schools in Machakos County given a coefficient of determination (R Square) of 0.635. The rest of the variation in the academic performance of the secondary schools considered in this study, 36.5%, were attributed to other factors. The study also assessed whether the model used in linking staff compensation to academic performance of secondary schools in Machakos County was significant.

#### **4.7.3.2 Goodness of Fit**

As shown by the findings outlined in the second output in Table 4.34, the  $p$  value associated with the  $F$  statistic calculated was less than the critical  $p$  set at 0.05 in this study and this led to the conclusion that the model used to link these variables was significant or adequate given,  $F(1, 149) = 259.031, p = .000, p < 0.05$ .

#### **4.7.3.3 Regression Coefficient**

The study further established that the academic performance of secondary schools in Machakos County was positively and significantly influenced by staff compensation in the schools as supported by ( $\beta = 0.825, t = 16.094, p = .000$ ). The implication of these results was that increased staff compensation by one unit would result to enhanced academic performance of the schools under study by 0.825 units, holding all other factors constant. From the findings, the  $p$  value computed was 0.000 which was less than 0.05. Consequently, the null hypothesis was rejected and a conclusion made that teaching staff

compensation has a significant influence on the academic performance of secondary schools in Machakos County. These findings confirm the argument of five of the KIs who stated that better compensation translated to good academic performance. Nonetheless, these findings are inconsistent with views of KI 1 that it was not compensation but the commitment of the teachers and interaction level with students that resulted to better academic performance.

Compared to past research, the findings of this study were in agreement with that of Muguongo et al.(2015) which suggested that compensation packages were likely to improve teacher satisfaction and commitment in their work hence improved students' academic performance. The findings also supported that of Gitonga et al.(2016) which showed that employment benefits such as allowances, incentives and bonuses positively affected employees' performance by motivating them to be productive culminating to organizational success. The following model was fitted based on the regression estimates obtained;

$$Y = 0.036 + 0.825 X_3$$

Where; Y=Academic performance of secondary schools in Machakos County,  
X<sub>3</sub>=Teaching staff compensation

#### **4.7.4 Influence of Teaching Staff Safety on Academic Performance**

The relationship between staff safety and the academic performance of secondary schools in Machakos County was evaluated by carrying out a bivariate linear regression analysis. A bivariate linear regression model was thus, applied in determining the extent to which

staff safety influence academic performance of these schools. The mean of responses on academic performance for all the principals were in this case regressed against mean of responses on teaching staff safety. In line with this, the following specified null hypothesis was tested;

**H<sub>04</sub>:** Teaching staff safety has no significant influence on the academic performance of secondary schools in Machakos County.

The study findings are as shown in Table 4.35.

**Table 4.35: Staff Safety and Academic Performance**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.727a	0.529	0.526	0.760912

a Predictors: (Constant), Teaching Staff Safety

<b>ANOVAa</b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	96.84	1	96.84	167.258	.000b
	Residual	86.269	149	0.579		
	Total	183.109	150			

a Dependent Variable: Academic Performance

b Predictors: (Constant), Teaching Staff Safety

<b>Coefficientsa</b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>	<b>Std. Error</b>	<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b></b>	<b>Beta</b>		
1	(Constant)	0.278	0.174		1.602	0.111
	Teaching Staff Safety	0.729	0.056	0.727	12.933	0.000

a Dependent Variable: Academic Performance

#### **4.7.4.1 Model Summary**

The findings presented in the first output in Table 4.35 show that the R Square obtained was 0.529 which meant that teaching staff safety explained 52.9% of the variance in academic performance of secondary schools in Machakos County. The rest of the variance, 47.1%, was associated with other factors that were not included in this model.

#### **4.7.4.2 Goodness of Fit**

The significance of the model used to show the link between teaching staff safety and academic performance of secondary schools in Machakos County was determined by assessing the F statistic calculated and its associated significance value (p value). The findings in the second output in Table 4.35 show that  $F(1, 149) = 167.258, p = .000, p < 0.05$ ) and hence, it can be said that the model used to show the relationship between the two study variables was significant as the p value associated with the F statistic computed was less than 0.05.

#### **4.7.4.3 Regression Coefficient**

The regression coefficient results presented in the third output in Table 4.35 reveal that teaching staff safety had a significant positive influence on the academic performance of secondary schools in Machakos County. This is demonstrated by ( $\beta = 0.729, t = 12.933, p = .000$ ) whereby a unit increase in staff safety would result to increased academic performance of secondary schools' in Machakos County by 0.729 units when all other factors were held constant. Given that the p value computed (0.000) was less than 0.05, it followed that the null hypothesis was rejected and an inference made that staff safety had



significant influence on the academic performance of secondary schools in Machakos County. These findings supported the observations by Sembe and Ayuo (2017) and also Musyoka (2014) that health and safety measures positively affected employee job performance which also impacted organizations' overall performance.

The following optimal model was also fitted based on the computed regression estimates.

$$Y = 0.278 + 0.729 X_4$$

Where  $Y$ =Academic performance of secondary schools in Machakos County and  $X_2$ =Teaching staff safety

#### **4.7.5 Human Resource Management Practices, School Infrastructure and Academic Performance**

The final objective of the study was to establish the moderating effect of school infrastructure on the relationship between human resource management practices and academic performance of secondary schools in Machakos County. The following null hypothesis was specified as follows;

**H<sub>05</sub>**: Moderating effect of school infrastructure on the relationship between human resource management practices and academic performance of secondary schools of in Machakos County is not significant.

A multiple linear regression analysis was first conducted determine the joint influence of human resource management practices under study on the academic performance of

secondary schools in Machakos County. The mean of responses on academic performance for all the principals were regressed against the mean of responses on the four HRM practices under study namely recruitment and selection of teaching staff, teaching staff training and development, teaching staff compensation and teaching staff safety so that the combined effect of these HRM practices on the academic performance of the sampled schools could be quantified. The findings are outlined in Table 4.36.

#### **4.7.5.1 Model Summary**

The findings are presented in Table 4.36 showed that the HRM practices under study explained a significant proportion of the changes in the academic performance of the secondary schools in Machakos County. This is demonstrated by the R square of 0.843 which meant that 84.3% of the variation in the academic performance of secondary schools in Machakos County were attributed to changes in the recruitment and selection of teaching staff, staff training and development, staff compensation and staff safety in these schools. The rest of the variation in the academic performance of these schools, 15.7%, was explained by other factors.

#### **4.7.5.2 Goodness of Fit**

The results outlined in the second output in Table 4.36 showed that the overall model used to the human resource management practices under study and the academic performance of secondary schools in Machakos County was statistically significant given  $F(1, 149) = 195.769, p = .000, p < 0.05$ . The results also suggested that the independent variables namely recruitment and selection of teaching staff, staff training and

development, staff compensation and staff safety were adequate predictors of the academic performance of these secondary schools.

#### **4.7.5.3 Regression Coefficients**

The regression estimates as provided in the third output in Table 4.36 revealed that recruitment and selection of teaching staff had a positive significant influence on the academic performance of secondary schools in Machakos County given ( $\beta = 0.191$ ,  $t = 4.616$ ,  $p = .000$ ,  $p < 0.05$ ). When all other factors were held constant, a unit increase in recruitment and selection of teaching staff would result to increased academic performance of these schools by 0.191 units. The findings also indicated that teaching staff training and development positively and significantly influenced the academic performance of secondary schools in Machakos County as demonstrated by ( $\beta = 0.338$ ,  $t = 6.644$ ,  $p = .000$ ,  $p < 0.05$ ). Holding all other factors constant, increased teaching staff training and development would lead to increased academic performance of secondary schools in Machakos County by 0.338 units.

Equally, teaching staff compensation was found to positively and significantly influence the academic performance of secondary schools in Machakos County as supported by ( $\beta = 0.439$ ,  $t = 9.806$ ,  $p = .000$ ,  $p < 0.05$ ). A unit increase in teaching staff compensation would therefore lead to increased academic performance of these schools by 0.439 units when all other factors were held constant. The study further established that teaching staff safety positively and significantly influenced the academic performance of secondary schools in Machakos County as shown by ( $\beta = 0.129$ ,  $t = 2.613$ ,  $p = .010$ ,  $p < 0.05$ ). Increasing the level of teaching staff safety by one unit would therefore, result to

increased academic performance of these schools by 0.129 units when all other factors are held constant. The optimal multiple linear regression model fitted before moderation is as shown below;

$$Y = -0.711 + 0.191 X_1 + 0.338 X_2 + 0.439 X_3 + 0.129 X_4$$

Where  $Y$  = Academic Performance of Secondary Schools in Machakos County,  $X_1$  = Recruitment and selection of teaching staff,  $X_2$  = Teaching staff training and development,  $X_3$  = Teaching staff compensation,  $X_4$  = Teaching staff safety.

**Table 4.36: Joint Influence of HRM Practices on Academic Performance before Moderation**

<b>Model Summary</b>						
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>		
1	.918a	0.843	0.839	0.443945		
a Predictors: (Constant), Teaching staff safety, Teaching staff compensation, Recruitment and selection of teaching staff, Teaching staff training and development						
<b>ANOVA<sup>a</sup></b>						
<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	154.335	4	38.584	195.769	.000b
	Residual	28.775	146	0.197		
	Total	183.109	150			
a Dependent Variable: Academic Performance						
b Predictors: (Constant), Teaching staff safety, Teaching staff compensation, Recruitment and selection of teaching staff, Teaching staff training and development						
<b>Coefficients<sup>a</sup></b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1	(Constant)	-0.711	0.117		-6.066	0.000
	Recruitment and selection of teaching staff	0.191	0.041	0.216	4.616	0.000
	Teaching staff training and development	0.338	0.051	0.323	6.644	0.000
	Teaching staff compensation	0.439	0.045	0.424	9.806	0.000
	Teaching staff safety	0.129	0.050	0.129	2.613	0.010
a Dependent Variable: Academic Performance						

A moderating variable affects the strength and/or direction of the relationship existing between the independent and dependent variables. It can enhance, reduce or change the impact of the independent variable. The moderating effect is tested in terms of how the effect of the independent variable on dependent variable changes when a moderator is introduced. The moderating effect was tested using stepwise regression analysis proposed by Berberoglu (2018). The first step involved testing the influence of the composite of human resource management practices on the academic performance of secondary schools in Machakos County. In the second step, the influence of predictor variables (composite of HRM practices and school infrastructure) on the dependent variable (academic performance of secondary schools in Machakos County) was tested. In the third step, an interaction term (computed as the product of standardized values for composite of HRM practices and school infrastructure) was introduced and its influence on the academic performance of the schools tested. Moderation is established if the influence of the composite of HRM practices, school infrastructure and interaction term on the academic performance of the secondary schools in the third step is significant.

The regression results in Table 4.37 are explained in this section. In step one; academic performance was regressed against the composite of HRM practices. The results indicate that the composite of HRM practices accounted for 82.1% of the variance in the academic performance of secondary schools in Machakos County given (R Square=0.821). The overall model was significant ( $F= 682.577$ ,  $p= .000$ ,  $p < 0.05$ ). The beta coefficient of 1.066 and associated p value of 0.000 implies that a unit change in the composite of HRM practices is associated with 1.066 changes in the academic performance of the schools. The results in the first step were all significant.

The moderator, school infrastructure was added in step two. The introduction of the moderator, significantly improved the influence of human resource management practices on the performance of secondary schools in Machakos County from 82.1% to 84.9%. Human resource practices and school infrastructure together explained 84.9% of the variance in the academic performance of the schools as demonstrated by R Square=0.849. The overall model was statistically significant ( $F= 416.217$ ,  $p=0.000$ ,  $p<0.05$ ). Similarly, the beta coefficient for school infrastructure ( $\beta=0.263$ ) was statistically significant given  $p=0.000$ .

In step 3, the interaction term was introduced in the regression model. All the variables, the composite of human resource management practices, school infrastructure and the interaction term (composite of HRM practices\*school infrastructure) were entered in the regression model. The results reveal that RSquare improved from 0.849 in step two to 0.873 in step three. The overall model in step three yielded results that indicate that the interaction was statistically significant ( $\beta=0.176$ ,  $p=0.000$ ,  $p<0.05$ ). This meant that school infrastructure moderated the relationship between human resource management practices and the academic performance of secondary schools in Machakos County. The coefficient of interaction was positive (0.176) which implied that changes in school infrastructure strengthened the relationship between HRM practices and the academic performance of secondary schools in Machakos County.

**Table 4.37: Stepwise Regression Results showing the on the Moderating Effect of School Infrastructure on the Relationship between HRM Practices and Academic Performance**

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**Model Summary**

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<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1 HRM practices	.906a	0.821	0.820	0.46925
HRM practices and School				
2 Infrastructure	.921a	0.849	0.847	0.432162
3 HRM practices, School				
Infrastructure the				
Interaction term	.935a	0.873	0.871	0.397202

**Analysis of Variance**

<b>Model</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>	
1	HRM practices	Regression	150.3	1	150.3	682.577	.000b
		Residual	32.809	149	0.22		
		Total	183.109	150			
2	HRM practices and	Regression	155.468	2	77.734	416.217	.000b
	School Infrastructure	Residual	27.641	148	0.187		
		Total	183.109	150			
3	HRM practices,	Regression	159.917	3	53.306	337.87	.000b
	School Infrastructure	Residual	23.192	147	0.158		
	the Interaction term	Total	183.109	150			

**Coefficients**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1 (Constant)	-0.636	0.121		-5.242	0.000
HRM practices	1.066	0.041	0.906	26.126	0.000
2 (Constant)	-0.856	0.119		-7.174	0.000
HRM practices	0.889	0.050	0.756	17.652	0.000
School Infrastructure	0.263	0.050	0.225	5.260	0.000
3 (Constant)	0.507	0.279		1.816	0.071
HRM practices	0.358	0.110	0.304	3.246	0.001
School Infrastructure	0.222	0.102	0.190	2.169	0.032
Interaction term	0.176	0.033	0.807	5.310	0.000

Model 1 Predictor (Constant) HRM practices

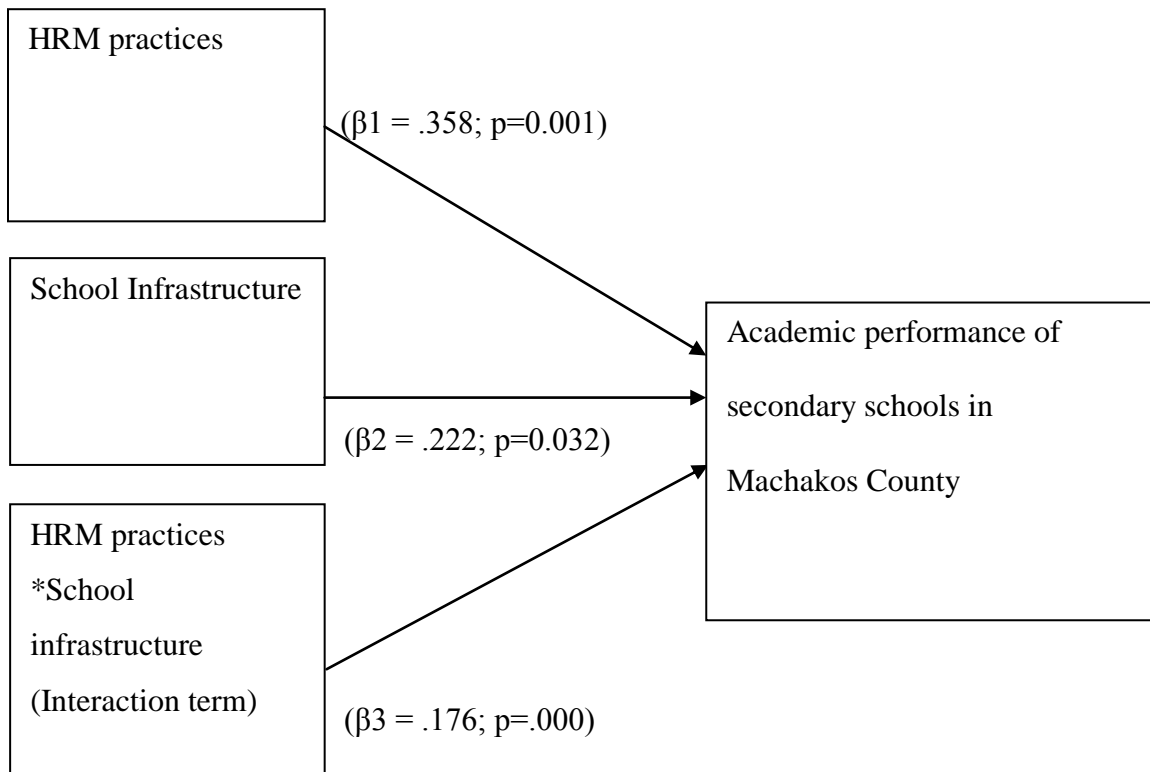
Model 2 Predictors: (Constant) HRM practices and School Infrastructure

Model 3 Predictors: (Constant) HRM practices, School Infrastructure and Interaction term.

Dependent Variable: Academic performance of secondary schools in Machakos County



Figure 4.13 contains the path diagram illustrating the moderation effect of school infrastructure following the stepwise regression analysis conducted. The figure illustrates step 3 of the stepwise regression where the composite of human resource management practices, school infrastructure as a moderator and the interaction term (composite of HRM practices\*school infrastructure) were entered in the regression model. The first arrow shows the beta coefficient (0.358) associated with the composite of HRM practices, under the second arrow, the beta coefficient (0.222) corresponding to school infrastructure as the moderating variable is given while under the third arrow, the beta coefficient (0.176) associated with the interaction term (composite of HRM practices\*school infrastructure) is given.



**Figure 4.13: Moderation Path Diagram for the Effect of School Infrastructure on the Relationship Between HRM Practices and the Academic Performance**

Based on the stepwise regression analysis, the substituted regression equation for estimating the moderating effect of school infrastructure on the relationship between human resource management practices and academic performance of secondary schools in Machakos County is as follows:

**Step I**

$$Y = -0.636 + 1.066X$$

Where **Y**= Academic performance of secondary schools in Machakos County, **X**= Composite of human resource management practices

**Step II**

$$Y = -0.856 + 0.889X + 0.263M$$

Where **Y**= Academic performance of secondary schools in Machakos County, **X**= Composite of human resource management practices, **M**= School infrastructure (moderator)

**Step III**

$$Y = 0.507 + 0.358X + 0.222M + 0.176 X * M$$

Where **Y**= Academic performance of secondary schools in Machakos County, **X**= Composite of human resource management practices, **M**= School infrastructure (moderator), **X\*M**= Interaction term

Following the findings in Table 4.37, the null hypothesis was rejected and a conclusion made that the relationship between human resource management practices and the

academic performance of secondary schools in Machakos County was significantly moderated by school infrastructure. These findings agreed with that of Olufunke and Olubunmi (2016) that a significant relationship existed between physical facilities, human and material resources and academic performance in schools. The findings also supported the findings by Uko (2015) that effectively managed school facilities were necessary in creating an enabling conducive teaching environment which was accompanied by enhanced student academic achievements.

#### **4.8 Chapter Summary**

This chapter presents in details the findings of the study and showed how they compared to that of past studies conducted in relation to the study topic. The findings in general show that academic performance of secondary schools in Machakos County was significantly influenced by Human Resource Management Practices adopted in these schools. The HRM practices considered specifically the recruitment and selection of teaching staff, their compensation, training and development as well as safety significantly enhanced the academic performance of these schools. The study also demonstrates that school infrastructure played a fundamental role in the relationship between HRM practices and the academic performance of secondary schools in Machakos County by strengthening the impact that these HRM practices had on the performance of these schools.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter provides a summary of the major findings of the study, the conclusions drawn as well as the recommendations for practice and policy. The chapter also provides different suggestions for further research. This was done as per the specific objectives of the study.

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

The main objective of this study was to examine the influence of Human Resource Management practices, school infrastructure on academic performance of secondary schools in Machakos County, Kenya. To realize this objective, five specific objectives were specified as follows; To examine the influence of teaching staff recruitment and selection on academic performance of secondary schools in Machakos County; To establish the influence of teaching staff training and development on academic performance of secondary schools in Machakos County; To assess the influence of teaching staff compensation on academic performance of secondary schools in Machakos County; To examine the influence of teaching staff safety on academic performance of secondary schools in Machakos County and; to establish the moderating effect of school infrastructure on the relationship between Human Resource Management practices and academic performance of secondary schools in Machakos County. Five null research

hypotheses were tested. A summary of the findings as per the specific objectives of the study is thus provided.

### **5.2.1 Recruitment and Selection of Teaching Staff and Academic Performance of Schools**

The study found that secondary schools in Machakos County both private and public largely laid emphasis on recruiting teaching staff who were competent and selected on merit basis. The schools also to a large extent ensured that the selection of their teaching staff was based on the skills and qualifications that the recruits had. In these schools, policies to guide the interview process in the course of recruiting their teaching staff were adhered to, to a large extent. The schools also ensured that the advertisement of teaching vacancies in their schools was open for all. Generally, secondary schools in Machakos County had demonstrated commitment to recruiting qualified teaching staff who were not only competent and skilled but also deserved to be placed in those positions. This was done on the basis of established interview policies besides ensuring that vacancies were made open for all qualified candidates.

The study also established that secondary schools in Machakos County considered other aspects of staff recruitment and selection such as the selection of teaching staff on the basis of their experience, managements' direct sourcing of teachers instead of advertising vacancies and also taking in to account recruits' performance track in previous work stations. From the findings obtained, the selection of competent and qualified teaching staff through a competitive recruitment process was perceived to influence the academic performance of secondary schools in Machakos County. This HRM practice was

perceived to influence the academic performance of these schools in different ways such as enhancing the quality of teaching in schools and increasing teachers' confidence and efficiency in guiding students which ultimately led to improved academic results. Nonetheless, it emerged from the study that for competent and qualified teachers to produce good results, they had to be committed and dedicated in their work.

The correlation analysis results showed that recruitment and selection of teaching staff was positively and significantly associated with the academic performance of secondary schools in Machakos County. This association was found to be strong as confirmed by  $r=.748$  and  $p=0.000$ . The regression analysis results ( $\beta = 0.659$ ,  $p = .000$ ) on the other hand confirmed that the academic performance of secondary schools in Machakos County was positively and significantly influenced by the recruitment and selection of teaching staff. These findings implied that enhanced recruitment and selection of teaching staff would translate to improved academic performance of secondary schools in Machakos County and vice versa. A calculated p value of 0.000 associated with the beta coefficient of recruitment and selection of teaching staff was a confirmation that this HRM practice significantly influenced the academic performance of these schools. On the basis of these findings, the null hypothesis was rejected and an inference made that recruitment and selection of teaching staff had a significant influence on academic performance of secondary schools in Machakos County.

### **5.2.2 Teaching Staff Training and Development and Academic Performance of Schools**

The study sought to establish the influence that teaching staff training and development had on academic performance of secondary schools in Machakos County. The findings obtained revealed that while these schools had to a great extent accorded their teachers opportunities for attending workshops, seminars and conferences to expand their knowledge and also ensured equality in according training and career development opportunities to them, the establishment of staff training and career development policies, diversification of in-house training programs for teachers as well as warranting that the opportunities for training and development for their teaching staff led to promotions had been moderately stressed. The study also found that teachers' training needs in these secondary schools, both public and private were majorly identified based on feedback from teachers and students as well as different internal subject and departmental meetings and routine briefs. The trainings needs were also identified based on the performance gaps noted, benchmarking studies and also the opinion of external examiners.

The descriptive statistics obtained further revealed that the training and development of teaching staff in secondary schools in Machakos County was also perceived to influence academic performance of these schools. Among the ways through which this HRM practice influenced academic performance as highlighted by the respondents was by enhancing teachers' capacity to carry out their duties. This is because by exposing them to training and development opportunities, the teachers were able to acquire more skills and competencies which translated to efficiency in handling tasks and student issues. Their mastery of content and exposure to new approaches to delivering content and handling

slow learners was enhanced. The secondary schools in Machakos County were further found to implement different training and development programmes in boosting the capacity of their teaching staff to produce better results.

The correlation results revealed a strong, positive and significant correlation or association between teaching staff training and development and academic performance of secondary schools in Machakos County. This was demonstrated by the computed  $r=0.771$  and  $p= 0.000$ . The regression analysis further showed that training and development of teaching staff had a positive influence on academic performance of secondary schools in Machakos County given  $\beta = 0.809$ . The influence of teaching staff training and development on academic performance of these secondary schools was also found to be significant as demonstrated by a  $p$  value of 0.000 that was associated with the regression coefficient for staff training and development. It was therefore, deduced that higher levels of teaching staff training and development were followed by considerable improvement in academic performance of secondary schools in Machakos County. Thus, the null hypothesis was rejected and an inference made that academic performance of secondary schools in Machakos County was significantly influenced by the level of training and development of their teaching staff.

### **5.2.3 Teaching Staff Compensation and Academic Performance of Schools**

The study sought to establish the influence of teaching staff compensation on academic performance of secondary schools in Machakos County. The study found that in compensating their teaching staff, these secondary schools largely focused their efforts on the recognition and rewarding of teachers who produced good results by recognizing



them through a TOYA award. Compensation is also demonstrated by giving allowances and other benefits to the teachers who have best results. The schools also to a great extent offered rewards and benefits that matched the amount and quality of work done by teachers and were giving diverse incentives to the teachers. Nonetheless, the secondary schools on average offered better allowance packages to their teaching staff in comparison to other schools and established overtime policies to a moderate extent.

The study established that in general, secondary schools in Machakos County, private and public, compensated their teaching staff using both financial and non-financial packages. The different forms of compensation applied comprised of different allowances, rewards and incentives which were contingent to the capability of the school and established compensation policies. The compensation of teaching staff was also perceived to influence the academic performance of secondary schools in Machakos County by the respondents. Overall, competitive or better compensation was found to be an incentive for increasing teachers' motivation and willingness to work extra hard and give their very best so that they could produce better results as per the set targets.

The correlation analysis revealed that teaching staff compensation and academic performance of secondary schools in Machakos County were positively and significantly associated as illustrated by  $r=.797$  and  $p=0.000$ . The association was strong. The regression results obtained confirmed that the compensation of teaching staff in secondary schools in Machakos county positively and significantly influenced the academic performance of these schools as illustrated by a calculated p value of 0.000 associated with the beta coefficient ( $\beta = 0.825$ ) for this variable. These findings meant that increasing the level of teaching staff compensation would enhance academic

performance of secondary schools in Machakos County were positively and significantly associated as illustrated by  $r=.797$  and  $p=0.000$ .. The null hypothesis that teaching staff compensation had no significant influence on the academic performance of secondary schools in Machakos County, was therefore, rejected.

#### **5.2.4 Teaching Staff Safety and Academic Performance of Schools**

The study examined the influence of teaching staff safety on academic performance of secondary schools in Machakos County. The study observed all secondary schools, private and public had mainly ensured that there was no harassment in their schools' work environment and that clear policies on health and safety of teachers were in place. The schools had also emphasized on maintaining clean work environment for their teachers that were free from pollution and also designed their workplaces in such a way that teachers' privacy was guaranteed. The teachers in these schools were also highly sensitized on safety issues to a large extent. However, the schools were yet to optimize the provision of descent housing and safe environments for their teaching staff willing to stay in school.

From the findings obtained, the respondents believed that teaching staff safety had an influence on academic performance of secondary schools in Machakos County. The safety of teachers majorly affected the level of teachers' concentration and focus in undertaking their routine activities. The study established that when the safety of teachers was guaranteed, they were motivated to work and there were minimal disruptions that could affect the teachers' ability to deliver which translated to improved academic performance. The study noted that teachers' commitment to their schools and in

extension, their work, as demonstrated by a higher sense of belonging was enhanced when the school environments were secure.

The correlation analysis results ( $r=0.727$ ,  $p=0.000$ ) showed that teaching staff safety and academic performance of secondary schools in Machakos County were positively and significantly correlated. The regression results on the other hand suggested that the safety of teaching staff positively influenced the academic performance of secondary schools in Machakos County an indication that enhancing the safety of teachers would result to improved academic performance in these schools. This was supported by a beta coefficient of 0.729. The influence of teaching staff safety on academic performance of secondary schools in Machakos County was also found to be significant given the computed  $p$  value of 0.000 which was associated with the beta coefficient of this variable. With these findings, the study failed to reject the null hypothesis and an inference was made that teaching staff safety has a significant influence on the academic performance of secondary schools in Machakos County.

#### **5.2.5 HRM Practices, School Infrastructure and Academic Performance of Schools**

The study sought to establish the moderating effect of school infrastructure on the relationship between human resource management practices and academic performance of secondary schools in Machakos County. From the descriptive analysis conducted, it was discovered that secondary schools in Machakos County had diverse infrastructural needs. For most schools, private and public, the school infrastructure areas that needed to be prioritized were majorly the construction of well-equipped science laboratories, stocked libraries, additional classrooms and dormitories, computer laboratories,

multipurpose halls as well as individual study rooms and expanded staff quarters among others. The study discovered that school infrastructure had significant moderating effect on the relationship between Human Resource Management practices under study and academic performance of secondary schools in Machakos County. This was illustrated by the calculated p value of 0.000 associated with the beta coefficient of the interaction term between the composite of HRM practices under study and school infrastructure. Since the beta coefficient (0.176) associated with the interaction term was positive, it was inferred that changes in school infrastructure strengthened the relationship between HRM practices and the academic performance of secondary schools in Machakos County. The study therefore rejected the null hypothesis that school infrastructure has no significant moderating effect on the relationship between HRM practices and academic performance of secondary schools in Machakos County.

### **5.3 Conclusions**

The study concluded that the academic performance of secondary schools in Machakos County when assessed using different measures was not satisfactory and that measures to reverse this trend was necessary. The study concluded that on average, most of the students from the secondary schools in Machakos County did not attain the required university entry mean grade C+ and above or qualify for prestigious courses' university entry grades. The study also concluded that most of the secondary schools in the County, on average, were not ranked among the top performers in the country and also did not attain an overall mean score above 5. The study further concluded that the performance gap between the best performing and worst performing secondary schools in the county

was very wide which explained the low average performance of secondary schools in this county.

The study concluded that, secondary schools in Machakos County recruited and selected their teaching staff as per TSC policies which requires that, skilled, qualified and competent staff were employed. That these schools had in place policies for guiding the process of interviewing recruits and notification of teaching vacancies was always made open for all.

The study also concluded that the schools undertook other diverse actions such as the selection of teaching staff based on experience, direct sourcing of teachers by management, and also took in to account recruits' previous performance in other work stations, actions which were geared at getting the best team. The study further concluded that proper and competitive recruitment and selection of teaching staff led to improved academic performance of secondary schools in Machakos County by ensuring that schools had capable teachers who could efficiently discharge their duties to achieve set performance targets.

The study concluded that while secondary schools in Machakos County were, for instance, highly committed to according their teachers opportunities for expanding their knowledge through workshops, seminars and conferences, they were yet to optimize on the establishment of policies to guide the training and career development processes besides having diversified in-house training programs. The study also concluded that in these schools, opportunities for training and development of teaching staff did not always guarantee promotions. The study concluded that higher levels of teaching staff training

and development enhanced the academic performance of these schools by improving the capacity of the staff to discharge their duties.

The study concluded that while secondary schools in Machakos County had prioritized actions such as recognizing and rewarding teachers who produced good results, some schools were yet to adequately offer better allowance packages to their teaching staff when compared to other schools besides establishing overtime policies.

The study concluded that teaching staff in secondary schools in Machakos County were compensated through regular salaries topped up with different allowances, rewards and incentives both monetary and non-monetary where possible, depending on the schools' capability. The study concluded that better compensation for teaching staff translated to better academic performance of secondary schools in this county mainly by impacting their motivation to deliver. Overall, the study concluded that teaching staff compensation had the largest effect on academic performance of secondary schools in Machakos County.

The study concluded that though secondary schools in Machakos County were keen on guaranteeing the safety and security of their teaching staff by, having in place clear policies on health and safety of teachers to a large extent, measures aimed at providing decent housing and safe environment for the teaching staff were yet to be heightened. The study concluded that enhanced teaching staff safety led to improved academic performance in secondary schools in Machakos County since teachers were able to concentrate and focus on their routine activities which translated to greater productivity.

Overall, the study concluded that the HRM practices that were of interest in this study namely, teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation and teaching staff safety individually and in combination, significantly influenced the academic performance of secondary schools in Machakos County. Consequently, the study concluded that HRM practices were significant variables that influenced the academic performance of secondary schools in this county. The study concludes that teaching staff compensation has the highest impact on improvement of academic performance.

The study concluded that basic school infrastructure in most of the secondary schools in Machakos County was inadequate, especially in most private, sub county, county secondary schools and hence, the infrastructural needs of the schools were many. The study further concluded that school infrastructure enhanced the influence that Human Resource Management practices had on the academic performance of secondary schools in Machakos County. Therefore, when the different infrastructural priority areas for the schools were addressed, it was likely that the effectiveness of different Human Resource Management practices in yielding better academic performance in these schools would be realized.

The role of HRM is generally seen in ensuring that organizations are able to recruit and select, train and develop, compensate and ensure safety for their employees. In this study the influence of teaching staff recruitment and selection, training and development, compensation and safety on academic performance in secondary schools in Machakos County was investigated. From the findings it was concluded that staff compensation had the highest influence while teaching staff safety had the least influence on the academic

performance. The other practices too play a significant role in academic performance of these secondary schools as evidenced by the positive beta coefficients from the regression analysis conducted.

It was however, observed that although these practices were in place, the quality grades in most of the schools were not satisfactory. From the study it is concluded that besides teaching staff recruitment and selection, teaching staff training and development, teaching staff compensation and safety of teaching staff, other aspects of Human Resource Management such as succession planning, leadership, talent management, staff involvement and worklife balance may also play a significant role in the academic performance of secondary schools in Machakos County and should not be ignored. The findings therefore, suggest that key stakeholders should address other HRM practices to maximize their potential effect on the academic performance of secondary schools in Machakos County and else where.

#### **5.4 Recommendations**

The study explored the influence of HRM Practices, school infrastructure on academic performance of secondary schools in Machakos County, Kenya. Based on the findings, the following recommendations are made to the School Management, Ministry of Education, TSC and other key stakeholders to improve academic performance.



### **5.4.1 School Management**

On recruitment and selection, the study recommends that the management of secondary schools in Machakos County should sustain their current recruitment and selection practices. They should also lay emphasis on the experience and qualification that the recruits have and also conduct thorough background checks to determine how recruits performed in their previous work stations. The management of these schools ought to also establish concrete structures, procedures and guidelines that guarantee integrity and independence throughout the recruitment process so that the various positions in the school are filled by deserving individuals.

The study recommends that public secondary schools in the County should strictly follow the TSC manual/recruitment policy when recruiting and selecting their teaching staff. Secondary schools in Machakos County should follow the recruitment guidelines and consider all applicants from far and wide. This will go a long way in reducing emerging issues in the recruitment and selection of teachers such as nepotism and also the lack of a heterogeneous teaching force.

Schools, through their ICT departments or any other relevant unit, should maintain databases of job seekers which will make future placement much easier and less costly. The study further recommends that schools' management should have in place structures or systems for cultivating a strong culture of commitment and dedication of teachers to their work so that their competencies and qualifications can translate to excellent results.

In relation to training and development of teaching staff, the study recommends that the schools' managements ought to motivate their teachers by attaching incentives into the

available training and development programs. For instance, the schools' managements should recommend promotion opportunities internally and issue recognition certificates to those who successfully go through the available programs. This can be used to encourage private arrangements for personal development among teachers.

The management of these schools should also develop operational policies to guide the design of their training and career development programs to make them more inclusive, relevant and comprehensive. The study also recommends that principals and the schools' management in general should enhance their in-house training programs by making them more diverse and also ensures that at minimum, all their teaching staff optimize the training opportunities under these programs.

The study calls for increased resource mobilization in terms of funding, more trainers and reference materials in order facilitate frequent training and team building sessions for teachers. The study recommends that school managements should hold periodic consultative meetings involving different stakeholders such as teachers, HODs, subject heads, examiners and students so that the training and development needs of their teaching staff can be adequately identified. This in turn will ensure that the design of available programmes for teaching staff training and development is well-informed by observed performance gaps.

The study recommends that proper scheduling of training and development sessions should be undertaken so that teachers can conveniently participate in these sessions. This measure will also ensure that more teachers get a chance to be part and parcel of available programs. To ensure proper scheduling of these programs, the study recommends for the

maintenance of a database or records that show the staff who have or have not taken part in a given programme. The study further recommends for periodic impact assessment analyses to allow the management of schools to audit their teaching staff training and development programmes. This will enable them to pinpoint any shortcomings and take informed actions to make the design of these programmes more efficient.

On staff compensation, the study recommends that for schools that support overtime teaching, the management should put in place clear policies to ensure that teachers embark on overtime teaching when it is very necessary and that they are not tempted to exploit the opportunities available for selfish gains. For the private schools, the study recommends for diversification of income streams by the schools' management so that the compensation packages given to their teachers are competitive. The management of private schools should also review their teachers' salaries with an intention of increasing their pay and also ensure that the payments are made on time. This will allow them to attract qualified teachers.

For public schools with BOM teachers, the study recommends that the schools' Boards of Management should solicit for more funds to be allocated to paying the teachers. The study recommends that the management of secondary schools in Machakos County ought to establish teachers' welfare offices to cater for all issues touching on the compensation of their staff. This will be a great stride towards improving the incentives given to teachers. The study further recommends that schools' management should also allow for teacher recognition for excellent performance in non-academic areas since such aspects ensuring that there is an enabling environment for schools to perform well.

The study calls for the mobilization of resources by schools to expand the housing facilities for their staff. The schools should set up organized school safety and security teams to oversee all safety and security related issues in the schools. This will ensure that there are individuals who can constantly champion and be held accountable for the security and safety of teaching staff at all times. By having such a team, strategies that can be used to marshal the required resources to guarantee the security and safety of teaching staff can be adequately formulated and executed.

Regarding school infrastructure, the study recommends that the owners of private schools should continuously invest in developing the required facilities in their schools. For the public schools, the study recommends for prudent use of funds allocated by the government in developing the required school infrastructure. The schools can also seek for financial assistance from donors, the community and also leaders at local levels in order to meet some of the infrastructural needs.

#### **5.4.2 Ministry of Education**

The study recommends that the Ministry of Education should develop a policy framework and strategy for guiding and supporting the management of secondary schools to optimize different HRM practices likely to impact the academic performance of their schools. For the public schools, the study calls for harmonized working relationship between the MOE and TSC so that suitable policies on different HRM practices such as teaching staff compensation and which take in to account the changing dynamics in the work environment of teachers can be implemented. For the private schools, the MOE in

partnership with various stakeholders from private schools can formulate policies that encourage the management of these schools to better implement different HRM practices.

The study recommends that MOE should seek funding from the treasury and also set aside funds that can be used to sponsor teachers to attend workshops, seminars, conferences and other career training and development forums that need individual facilitation. The study also recommends that the Ministry of Education should design frameworks and offer in kind assistance required by secondary schools to set up efficient safety and security systems in schools. The Ministry should monitor the implementation. The ministry, for instance, can provide guiding school safety plans that can be easily adopted by management of schools and fitted to suit the particular needs of a school. For public schools, the ministry could increase the budgetary allocations needed to improve the security/safety infrastructure and installations in schools, for instance, equipped healthcare as well as sanitation facilities. For the private schools, the ministry could institute structures for compelling the management of these schools to enhance their capacity to guarantee safety and security in their installations.

The study recommends that MOE should champion for more budgetary allocations from the treasury in order to increase funding required for infrastructure development in the schools. The ministry in its budgetary plans should aim to make sure that schools at all levels have the basic infrastructure such as science laboratories that are a necessity when students are preparing for examinations. For private schools, the government should enforce policies that compel these schools to have the requisite basic school infrastructure required by students to adequately prepare for their examinations.

### **5.4.3 Teachers Service Commission**

The study recommends that the Teachers service commission should consider reviewing their recruitment policies to extend the probationary period for teachers so that they can adequately grasp the responsibilities and methods of discharging their mandate. This should go hand in hand with the extensive engagement of the candidates throughout the recruitment process and also greater involvement of the administration in the recruitment process.

The study recommends that TSC should have in place established systems and procedures for monitoring the recruitment and selection of teachers in public secondary schools so that the management of these schools fill vacant positions as per the commission's manual or policy guidelines. The commission should also review various guidelines on teachers' recruitment so as to accommodate changing dynamics in the teaching environment.

The study recommends that the Commission should prepare adequate budget estimates that can be used to bargain for more budgetary allocations from the government in order to improve the compensation package for government employed teaching staff. The study recommends that the Commission show increase promotion opportunities for its teachers, provide better allowances and also ensure that salary payments for teachers are made on promptly or on time so that they can be motivated to meet their targets.

The study recommends that TSC should enhance its capacity to implement Work Injury Benefits Act, for instance, the provision of work injury insurance to its teachers especially those who are highly susceptible to illnesses and diseases. In addition, the study recommends that the commission should remit statutory deductions from teachers' salaries such as health insurance on time so that teachers can benefit in times of emergency.

### **5.5 Suggestions for Further Research**

This study only focused on four HRM practices and since there are many other Human Resource Management practices such as, work life balance, human resource planning, talent management, employee involvement and retention which are likely to affect the academic performance of schools, a similar study can be undertaken to capture their effect. Studies that take in to account other moderating variables such as discipline of the students, leadership qualities of principals, sponsorship of the schools where the sponsors are concerned about facilities can also be considered.

Similar studies can be replicated in other counties where majority of the schools across all categories post quality results like Kiambu, Nyeri and Makueni for comparative purposes. The study further recommends for more in-depth studies that explore the various HRM practices and policies that are particular to the education sector and any emerging differences in their application in as far as the private and public sector is concerned. Studies that compare the application of HRM practices across different sectors can also be conducted so that different sectorial policies in this regard can be enhanced.

## REFERENCES

- Adeniji, A. & Osibanjo, O. (2012). *Human Resource Management: Theory and Practice*, Abuja: Pumark Nigeria Limited.
- Agoi. L. (2015). *Influence of human resource management practices on employee satisfaction in public sugar manufacturing firms in Kenya*. Unpublished Phd Thesis, Jomo Kenyatta University College of Science and Technology.
- Agwu, M. O. (2016). Impact of employees' safety culture on organizational performance in shell bonny terminal integrated project. *European Journal of Business and Social Sciences*, 1(5),70-82.
- Ahmed, K, Mustaq, T. & Tabassum, K. (2014). Occupational health, safety and risk analysis. *International Journal of Science, Environment and Technology*, 3(4), 1336-1346.
- Ahteela, R. & Vanhala, M. (2011). The effect of HRM practices on impersonal organizational trust. *Management Research Review*, 6(5), 525-531.
- Aigbepue, S. & Mammud, V. E. (2012). Training, development and organisational performance. *Journal of Research in National Development*, 10(3), 170-177.
- Ainon. R. & Zain, R. M. (2018). The impact of facilities on student's academic achievement. *Sci. Int.(Lahore)*, 30(2), 299-311.
- Akella, D. (2016). *Workplace bullying: Not a manager's right?* <https://journals.sagepub.com/doi/full/10.1177/2158244016629394>.
- Akter, N., & Moazzam, H. M. (2016). Effect of compensation on job performance: An empirical study. *International Journal Of Engineering Technology, Management And Applied Sciences*,4(8), 103-116.
- Al Khajeh, E. H. (2018). Impact of leadership styles on organizational performance. *Journal of Human Resources Management Research*, 2(18), 1-10.
- Al-Qudah, M. K. M., Osman, A., Ab Halim, M. S., & Al-Shatanawi, H. A. (2014). The effect of human resources planning and training and development on organizational performance in the government sector in Jordan. *International Journal of Academic Research in Business and Social Sciences*, 4(4), 79-93.
- Amadi, E. & Ezeugo, C. R. (2019). *Physical Resources Availability and the Academic Performance of Students in the Universal Basic Education Scheme*, Rivers State.



- Amini, K. (2015). *State of Education in Africa Conference Outcomes*. Co- sponsored by the Ford Foundation and The World Bank.
- Arasa, R., Katua, T. & Kimani, J. (2017). Effect of compensation strategies on employee performance: A Case Study of Mombasa Cement Limited. *International Journal of Innovative Social Sciences & Humanities Research*, 5(3), 25-42.
- Arif, I. (2017). Effectiveness of an Intervention Program in Fostering Academic Resilience of Students at Risk of Failure at Secondary School Level. *Bulletin of Education and Research*, 39(1), 251-264.
- Armstrong, M. (2010). *Human Resources Management Practice*. Great Britain: Bath Press.
- Ayanda, O. J., & Sani, A. D. (2011). An evaluation of Strategic Human Resource Management (SHRM) practices in Nigerian Universities: the impact of ownership type and age. *European Journal of Economics, Finance and Administrative Sciences*, 32(7), 7-25.
- Barney, J. B. (2007). Resource-Based Theory: Creating and Sustaining Competitive Advantage. *Journal of Business and Management*, 20(9), 36-47.
- Beh, L. S. & Loo, L. H. (2013). Human resource management best practices and firm performance: A universalistic perspective approach. *Serbian Journal of Management*, 8(2), 155-167.
- Berberoglu, A. (2018). Impact of organizational climate on organizational commitment and perceived organizational performance: empirical evidence from public hospitals. *BMC health services research*, 18(1), 1-9.
- Bياما. T. (2014). *Factors influencing academic performance of public secondary schools in Matungulu district, Machakos County*. Unpublished Research Project University of Nairobi.
- Bloom, N., Lemos, R., Sadun, R., & Van Reenen, J. (2015). Does management matter in schools?. *The Economic Journal*, 125(584), 647-674.
- Boxall, P. F., Purcell, J., & Wright, P. M. (Eds.). (2007). *The Oxford handbook of human resource management*. United Kingdom: Oxford University Press on Demand.
- Bratton, J., & Gold, J. (2017). *Human resource management: theory and practice*. Palgrave.

- Bryson, A., Stokes, L. & Wilkinson, D. (2018). Is Pupil Attainment Higher in Well-Managed Schools?. *Journal of Education*, 6(10), 43-56.
- Caruth, G. D. (2013). Demystifying mixed methods research design: A review of the literature. *Online Submission*, 3(2), 112-122.
- Chiedozie, O. L., Victor, A. A., & Sunday, F. T. (2018). Relationship between Staff Human Resource Management and Academic Performance of Accounting Students in Secondary Schools in Akoko South-West, Ondo State. *Online Submission*, 4(8), 31-41.
- Christensen, L. B., Johnson, B., Turner, L. A., & Christensen, L. B. (2011). *Research methods, design, and analysis*. New York: Pearson Education, Inc.
- Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The psychologist*, 26(2), 1-15.
- Cooper, D. & Schindler, P. (2011). *Business research methods* (11<sup>th</sup> ed.). McGraw Hill: Boston.
- Cole, G. A. (2000). *Organizational behavior, theory and practice (6th Ed.)*. New York: McGraw-Hill
- Collins, C. and Smith, K. (2006). Knowledge Exchange and Combination: The Role of Human Resource Practices in the Performance of High-Technology Firms. *Academy of Management Journal*, 49(1), 544-560. <https://doi.org/10.5465/amj.2006.21794671>.
- Daniel, B. K., & Harland, T. (2017). *Higher education research methodology: A step-by-step guide to the research process*. New York: Routledge.
- Daoud, J. I. (2017). Multicollinearity and regression analysis. In *Journal of Physics: Conference Series* (Vol. 949, No. 1, p. 012009). IOP Publishing.
- Dessler, G. (2002). *Human Resource Management*. New Delhi: Prentice hall.
- Djabatey E. N. (2012). *Recruitment and selection practices of organizations: A case study of HFC Bank (GH) Ltd.* unpublished thesis. Kwame Nkrumah University of Science and Technology.

- Dzakiria, H., Don, M. S., & Rahman, H. D. A. (2012). Blended learning (BL) as pedagogical alternative to teach business communication course: Case study of UUM executive diploma program. *Turkish Online Journal of Distance Education*, 13(3), 297-315.
- Dźwigoł, H., & Dźwigoł-Barosz, M. (2018). Scientific research methodology in management sciences. *Financial and Credit Activity: Problems Of Theory And Practice*, 2(25), 424-437.
- Ekwoaba, J. O., Ikeije, U. U. & Ufoma, N. (2015). The Impact of Recruitment and Selection Criteria on Organizational Performance. *Social Sciences*, 1(8), 15-34
- Ekwoaba, J. O., Ikeije, U. U., & Ufoma, N. (2015). The Impact of Recruitment and Selection Criteria on Organizational Performance. *International Journal of Management (IJM)*, 7(1), 21-43.
- Emmanuel, T., Umar, G. & Oluseyi, A. (2013). Empirical study of training and development as a tool for organizational performance: case study of selected banks in Nigeria. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 2(10), 150-162.
- Ezeali, B. O & Esiagu, L. N. (2015). *Public personnel management: Human capital management strategy in the 12st century*. Onitsha: Book Point Limited.
- Ezeani, N.E. & Oladele, R. (2013). Implications of training and development programmes on accountants' productivity in selected business organizations in Onitsha, Anambra State, Nigeria. *International Journal of Asian Social Science*, 3(1), 266-281.
- Faizuddin, A. (2018). Practices of Human Resource Management among Headmasters in Primary Schools: A Case Study of Selected National and Private Schools in Malaysia. *Administration Research*, 1(1), 22-33.
- Fouka, G. & Mantzorou, M. (2011). What are the major ethical issues in conducting research? Is there a conflict between the research ethics and the nature of nursing? *Health Science Journal*, 5(1), 3-26.
- Fuzu, R. N. (2014). *Influence of school infrastructure on academic performance in public primary schools in Ruiru Location-Meru County, Kenya* (Doctoral dissertation, University of Nairobi).

- Gamage, A. S. (2014). Recruitment and selection practices in manufacturing SMEs in Japan: An analysis of the link with business performance. *Ruhuna Journal of Management and Finance*, 1(1), 37-52.
- Gambo, H. G. (2015). The impact of training and development on workers 'productivity in some selected Nigerian universities. *International Journal Of Public Administration And Management Research*,3(2), 10-16.
- George, B., Walker, R. M., & Monster, J. (2019). Does strategic planning improve organizational performance? A meta-analysis. *Public Administration Review*, 79(6), 810-819.
- Gitonga, A. G., Kilika, J. M. & Obere, E. (2016). Generation Y talent management strategy and competitive advantage: Case of commercial banks in kenya. *Journal of Human Resource Management*, 4(2), 10-18.
- GOK (2017). *A policy framework for education and training: reforming education and training in Kenya a policy framework for education and training: reforming Education and training in Kenya*. Sessional paper no. 14 of 2017 reforming education and training sectors in Kenya. Government Printer.
- Grant, R. M. (2002). Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization science*, 7(4), 375-387.
- Gujarati, D. N., & Porter, D. C. (2009). Causality in economics: The Granger causality test. *Basic Econometrics* (Fifth international ed.). New York: McGraw-Hill.
- Hameed, A., Muhammad, R., Hafiz, M. K., Ghazanfar, A. & Muhammad, A. (2014). Impact of compensation on employee performance: Empirical Evidence from banking sector of Pakistan. *International Journal of Business and Social Science*, 5(2), 302 – 309.
- Hamid, J. (2013). Strategic human resource management and performance: the universalistic approach-case of Tunisia. *Journal of Business Studies Quarterly*, 5(2), 184-201.
- Hassan, S. (2016). Impact of HRM practices on employee's performance. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 6(1), 15-22.
- Hesketh, A. & Fleetwood, S. (2008). Theorising under-theorisation in research on the HRM-performance link. *Personnel Review*, 1(1), 62-79.

- Hitt, M.A., Ireland, R.D., & Hoskin, R.E. (2010). *Strategic Management Competitiveness and Globalization-Cases*. (2 nd ed.). London: Thomson Nelson Publishers.
- Hossain, N. & Musembi, C. (2012). *Corruption, Accountability and Gender: Understanding the Connections*. UNDP and UNIFEM.
- Hughes, J. M. C. (2002). HRM and universalism: is there one best way?. *International Journal of Contemporary Hospitality Management*, 14(5), 221-238.
- Hussain, M.A. (2014). *Human capital management systems as a source of competitive advantage*. Rutgers: Rutgers University Press.
- Ibojo, O. B. & Asabi, M. O. (2014). Compensation Management and Employees Performance in the Manufacturing Sector, A Case Study of a Reputable Organization in the Food and Beverage Industry. *International Journal of Managerial Studies and Research*, 2(9), 108-117.
- Ichniowski, C., Levine, D. I., Olson, C., & Strauss, G. (Eds.). (2000). *The american workplace: skills, pay, and employment involvement*. Newyork: Cambridge University Press.
- Iravo, M., Ongori, J. & Munene, C. (2013). Factors affecting the performance of hotels and restaurants in Kenya. A case of Kisii County. *Interdisciplinary Journal of Contemporary Research in Business*, 4(12), 897-928.
- Jamil, A., Ramzan, A., Atta, M. A., Younis, M., Kareem, U., & Jan, T. (2012). Gender Comparison of the Performance of Secondary Level Institutional Heads in DIK, Khyber Pakhtunkhwa. *International Journal of Human Resource Studies*, 2(3), 147-162.
- Jehanzeb, K., & Bashir, N. A. (2013). Training and development program and its benefits to employee and organization: A conceptual study. *European Journal of business and management*, 5(2), 64-79..
- Jeremy, B. M., McCord, M. A., & Zohar, D. (2016). Workplace safety: A review and research synthesis. *Organizational Psychology Review*, 6(4), 352-381.
- Johnson, G., Scholes, K. & Whittington, R. (2012). *The Importance of core competencies in an organization*. <https://writepass.com/journal/2012/11/>.
- Jonathan, G. K. & Mbogo, R. W. (2016). Maintaining Health and Safety at Workplace: Employee and Employer's Role in Ensuring a Safe Working Environment. *Journal of Education and Practice*, 7(29), 1-7.

- Kabera, M. (2012). *Retention Programmes of human resource in the private security firms located in Nairobi. Kenya: Master's Thesis, KU Library.*
- Kaimenyi, J. (2013). *Factors influencing academic performance of students in Kenya Certificate of Secondary Education in Imenti North District, Kenya.* Unpublished Thesis, University of Nairobi.
- Kajunju, A. (2015). *State of education in Africa report.* The Africa America Institute.
- Karue, N. & Amukowa, W. (2013). Analysis of Factors that lead to poor Performance in Kenya Certificate of Secondary Examinations in Embu District, Kenya. *Journal of Public Administration*, 8(1), 13-29.
- Kassa, B. & Singh, N. R., &. (2016). The impact of human resource management practice on organizational performance-A Study on Debre Brehan University. *International Journal of Recent Advances in Organizational Behaviour and Decision Sciences*, 1(1), 643-662.
- Kaynak, R., Toklu, A. T., Elci, M., & Toklu, I. T. (2016). Effects of occupational health and safety practices on organizational commitment, work alienation, and job performance: Using the PLS-SEM approach. *International Journal of Business and Management*, 11(5), 146-166.
- Keinan, A. S. & Karugu, J. (2018). Total quality management practices and performance of manufacturing firms in Kenya: Case of Bamburi Cement Limited. *International Academic Journal of Human Resource and Business Administration*, 3(1), 81-99.
- Kelley, K. & Bolin, J. H. (2013). Multiple regression. In *Handbook of quantitative methods for educational research* (pp. 69-101). Brill Sense.
- Kepha, O. (2014). *Influence of human resource management practices on the performance of employees in research institutes in Kenya.* Unpublished Thesis. University of Nairobi.
- Kepha, O., Mukulu, E. & Waititu, G. A. (2015). The influence of recruitment and selection on the performance of employees in research institutes in Kenya. *International Journal of Science and Research*, 3(5), 132-138.
- Kevin, A. (2012). *The impact of teaching and learning infrasture in the provision of quality education in public secondary schools in Nyakach District.* Unpublished thesis, University of Nairobi.

- Khanfar, S. M. (2011). Impact of training on improving hotelling service quality. *Journal of Business Studies Quarterly*, 2(3), 84-98.
- Kianto, A., Sáenz, J., & Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research*, 81(2), 11-20.
- Kieti, J. (2017). *An investigation into factors influencing student's academic performance in public secondary schools and Matungulu Sub-County, Machakos County*. Unpublished thesis, JKUAT.
- Kigotho, D. (2012). Relationships between drivers and results of performance in the Kenyan Hotel Industry *Journal of Hospitality Management and Tourism*, 3(3), 46-54.
- Kiiru, M. D. (2013). *Strategic Human Resource Management practices and performance of parastatals in Kenya*. Published Ph.D Thesis, Kenyatta University.
- Kilika, J. M., K'Obonyo, P. O., Ogutu, M. & Munyoki, J. M. (2016). The mediating role of university industry collaboration on the relationship between human resource development, infrastructure and performance of universities in Kenya. *Asia Pacific Journal of Advanced Business and Social Studies*, 2(1), 129-148.
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of higher education*, 6(5), 26-41.
- KNEC (2013). *Education: KNEC blames teachers for poor performance*. Nairobi, Kenya.
- K'Obonyo, P.O., Ogutu, M. & Busienei, J.M. (2013). Toward understanding the Design of Human Resource Development Infrastructures for Knowledge Intensive Organizations: Empirical Evidence from Universities in Kenya. *DBA Africa Management Review*, 2(2), 70-77.
- Komba, C., Hizza, E. & Jonathan, W. (2013). *Factors Influencing Academic performance of ward secondary schools*. Working paper No.1/2003. Moshi university College of cooperative and Business Studies.
- Kormla, E. (2012). Principals' strategies for improving academic achievement of students of disadvantaged rural junior high schools in Ghana. *Edith Cowan University, Perth, Western Australia*, 31(6), 893-908.
- KPSA. (2017, May 15). *Private Schools in Kiambu*. Retrieved from KPSA: <http://www.kpsa.co.ke/institutions/county/22/kiambu>

- Kraha, A., Turner, H., Nimon, K., Zientek, L., & Henson, R. (2012). Tools to support interpreting multiple regression in the face of multicollinearity. *Frontiers in psychology*, 3(1), 44-65.
- Kumar, R. (2018). *Research methodology: A step-by-step guide for beginners*. Prentice Hall: Sage.
- Kumwenda, B., Cleland, J. A., & Walker, K. (2018). Correction: The relationship between school type and academic performance at medical school: a national, multi-cohort study (vol 7, e016291, 2017). *BMJ Open*, 8(1), ARTN-e016291corr1.
- Kyei, K. A. & Nemaorani, T. M. (2014). Establishing factors that affect performance of grade ten students in high school: A case study of Vhembe district in South Africa. *Journal of Emerging Trends in Educational Research and Policy Studies*, 5(7), 83-87.
- Maforah, T. P. (2015). Secondary Schools Principals and Their Job Satisfaction: A Test of Process Theories. *Journal of International Education and Leadership*, 5(2), 63-79.
- Mahulo, P. (2012). *Influence of teacher training on the performance of students in mixed secondary schools in gem district, Kenya*. Unpublished Research Project. Master of Business Administration (MBA) University of Nairobi.
- Maina, E. N. (2017). *An investigation into the causes of poor performance in Kiswahili KCSE examination in Kipipiri Division of Nyandarua District* (Doctoral dissertation, Kenyatta University).
- Makhamara, J. (2016). Influence of occupational health and safety on organizational performance in the manufacturing sector in Kenya: A case study of KAPA Oil Refineries Limited. *The Strategic Journal of Business and Change Management*, 3(2), 30-59.
- Manju, S. & Suresh, B. H. (2011). Training Design Interventions and Implications for the Productivity Effectiveness. *Synergy (0973-8819)*, 9(1), 86-99.
- Mansour, M. (2013). Evaluation of Training in Organizations: An Empirical Investigation from a Developing Country. *International Journal of Education and Research*, 1(6), 411-445.
- Mansour, N. (2013). Consistencies and inconsistencies between science teachers' beliefs and practices. *International Journal Of Science Education*, 35(7), 1230-1275.



- Manthi, A. K., Kilika, J. M. & Kimencu, L. (2018). How do human resource management practices predict employee Turnover Intentions: An empirical survey of teacher training colleges in Kenya. *International Journal of Business Administration*, 9 (4), 201-213.
- Marchington, M., & Wilkinson, A. (2008). Direct participation and involvement. *Managing human resources: personnel management in transition*, 398-423.
- Marques, J. (2015). Universalism and Utilitarianism: An evaluation of two popular moral theories in business decision making. *The Journal of Values-Based Leadership*, 8(2), 21-39.
- Mburu, D. N. (2013). Effects of the type of school attended on students' academic performance in Kericho and Kipkelion districts, Kenya. *International Journal of Humanities and Social Science*, 3(4), 79-90.
- McDonald, A. (2017). Developing Tomorrow's Leaders—Evidence of Global Talent Management in Multinational Enterprises. *Journal of World Business*, 4(5), 150–160.
- Meeta, C. & Dwivedi, F. (2016). *An Empirical Study on training and development practices in Life Insurance Corporation in India*. [https://www.researchgate.net/publication/293542994\\_.retrived](https://www.researchgate.net/publication/293542994_.retrived) 13th February 2016.
- Midiwo, J. (2016). *Influence of Human Resource Information Systems on the Performance in Kenyan Public Universities* (Doctoral dissertation, Jomo Kenyatta University of Agriculture and Technology).
- Ministry of Education, Science and Technology (2015). *Education for all: The 2015 national review*. Nairobi: Government Printer.
- Mitalo, R., Muindi, F. & Pokhariya, K. (2018). Employee Compensation and Performance of Academic Staff in Kenyan Chartered Public Universities. *International Journal of Current Aspects in Human Resource Management (IJCAHRM)*, 1(3), 194-203.
- Mohajan, H. K. (2018). Qualitative research methodology in social sciences and related subjects. *Journal of Economic Development, Environment and People*, 7(1), 23-48.
- Mohammad, A. & Younes, B. (2017). *Low Academic Achievement: Causes and Results*. ISSN 1799-2591.

- Mokaya, Z. (2013). *Influence Of School Infrastructure On Students' Performance In Public Secondary Schools In Kajiado County, Kenya*. Unpublished Research Proposal. University of Nairobi.
- Molokomphale, L. (2015). Investigation on Students Academic Performance for Junior Secondary Schools in Botswana. *European Journal of Educational Research*.3(1), 111-127.
- Mugambi, G. (2017). *Effect of Perceived HRM practices on employee Performance at KMTC*.Unpublished research Project, University of Nairobi.
- Mugambi, M. D. (2015). *The role of principals in promoting students' academic performance in secondary schools in Tigania West Sub-County, Meru County, Kenya*.Masters thesis, Kenyatta University,Nairobi.
- Muguongo, M. M., Muguna, A. T., & Muriithi, D. K. (2015). Effects of compensation on job satisfaction among secondary school teachers in Maara Sub-County of Tharaka Nithi County, Kenya. *Journal of Human Resource Management*, 3(6), 47-71.
- Mullins, L. J. (2007). *Management and organisational behaviour*. Great Britain: Pearson education.
- Mumasi, W. (2013). *School Based Factors Influencing Students' Performance At Kenya Certificate Of Secondary Education In Narok-North District, Kenya* (Doctoral dissertation, University of Nairobi).
- Munyon, T. P., & Summers, K. J. (2011). Team staffing modes in organizations: Strategic considerations on individual and cluster hiring approach.*Human Resource Management Review*, 21 (3), 228–242.
- Musera, G., Achoka, J. K. S. & Mugasia, E. (2012). Perception of secondary school teachers on the Principals' leadership styles in school management in Kakamega Central District, Kenya. Implications for Vision 2030. *International Journal of humanities and social science*, 2(6), 111-119.
- Musyoka, R.S. (2014). *Relationship between health and safety programmes and performance of manufacturing firms in Mombasa county, Kenya*. Unpublished Research Project.Master of Business Administration (MBA), University of Nairobi.
- Mushtaq, I., & Khan, S. N. (2012). Factors Affecting Students' Academic Performance. *Global Journal of Management and Business Redearch*, 12(9), 17-22.

- Mutahaba, G. (2011). *Report on adoption and use of performance management systems including performance measurement, monitoring and evaluation in Africa*. Conference of African Ministers of Public Service.
- Mutiso, C. & Kilika, J. M. (2017). Using Human Resource Management Practices to Predict Quality Service Delivery: Case of Public Secondary Schools in Kenya. *International Journal of Business and Management*, 12(10), 121-131.
- Namusonge, G.S. Gathungu E.W. & Iravo, M.A. (2015). Effect of Promotion Strategies on the Organizational Commitment of Banking Sector Employees in Kenya. *Journal of Educational research and review*, 3(4), 54-61..
- Nayak, J. K., & Singh, P. (2021). *Fundamentals of Research Methodology Problems and Prospects*. SSDN Publishers & Distributors.
- Ndinza, K. L. (2015). *Influence of headteachers' management practices on students' academic performance in public secondary schools within kitui central district, kitui county, Kenya*. <https://www.semanticscholar.org>
- Ndirangu, W. P., Thinguri, R. & Mugwe, C. M. (2016). Physical Facilities for Holistic Education: Lessons from Secondary Schools in Kiambu and Samburu Counties, Kenya. *Journal of Education and Practice*, 7(33), 190-198.
- Nelson, R. M., Beauchamp, T., Miller, V. A., Reynolds, W., Ittenbach, R. F., & Luce, M. F. (2011). The concept of voluntary consent. *The American Journal of Bioethics*, 11(8), 6-16.
- Newman, A. (2015). Evidence of learning: a framework for facilitation. *Educause Review*, 50(6), 46-62.
- Nguyen, T. T. L. (2019). Selection of Research Paradigms in English Language Teaching: Personal Reflections and Future Directions. *KnE Social Sciences*, 8(2), 1-19.
- Niazi, A. S. (2011). Training and development strategy and its role in organizational performance. *Journal of public Administration and Governance*, 1(2), 155-167.
- Noe, R. A., Hollenbeck, J. R., Gerhart, B. & Wright, P. M. (2007). *Human Resource Management: Gaining a competitive advantage*. Burr Ridge, Illinois: Irwin.

- Ntiamoah, E., Abrokwah, E., Agyei-Sakyi, M., Opoku, B., & Siaw, A. (2014). An investigation into recruitment and selection practices and organizational performance. *International Journal of Economics, Commerce and Management*, 2(11), 1-11.
- Nwaka, N.G. & Ofojebe, W. N (2020). Strategies for coping with Shortage of Resources in Primary School Administration in Anambra State. *Journal of Education Leadership*, 1 (1), 29-36.
- Nyagah, G., Wachiuri, R. N., & Imonje, R. (2017). Relative Advantage of Assistive Technology in the Teaching and Learning of Integrated English Among the Visually Impaired Learners in Special Secondary Schools in Kenya. *US-China Education Review*, 7(1), 39-48.
- Nyakang'o, M. (2015). *Director Finance & Administration*. Kenya National Bureau of Statistics.
- Nyakundi, T. K. (2013). Factors affecting Teacher Motivation in public Secondary schools in Thika West District, Kiambu county. *Journal of Development*, 10(3), 170-177.
- Nyoni, M., Nyoni, T., & Bonga, W. G. (2017). Factors Affecting Students' Academic Achievement in Zimbabwe's Rural Secondary Schools: A Case Study of Marimasimbe Secondary School in Jiri Community. *Dynamic Research Journals' Journal of Economics and Finance (DRJ-JEF)*, 2(3), 01-15.
- Oaya, Z. C. T., Ogbu, J., & Remilekun, G. (2017). Impact of Recruitment and Selection Strategy on Employees Performance: A Study of Three Selected Manufacturing Companies in Nigeria. *International Journal of Innovation and Economic Development*, 3(3), 32-42.
- Obasan, K. A. (2012). Effect of compensation strategy on corporate performance: Evidence from Nigerian firms. *Research Journal of Finance and Accounting*, 3(7), 37-44.
- Obiero, J. (2018). The relationship between achievement motivation and mathematic performance amongst female learners and in selected urban girls secondary schools in Kenya. *Global Journal of Social Sciences Studies*, 4(1), 23-29.
- Odhiambo O. (2013). *Influence of best human resource management practices on organizational performance: a case of college of humanities and social sciences university of Nairobi*. Unpublished Research Project, University of Nairobi.

- Odukoya, J. A., Bowale, E. I., & Okunlola, S. (2018). Formulation and implementation of educational policies in Nigeria. *African Educational Research Journal*, 6(1), 70-82.
- Ofori, D., & Aryeetey, M. (2011). Recruitment and selection practices in small and medium enterprises. *International Journal of Business Administration*, 2(3), 45-60.
- Ogbu, J. (2017). Impact of employee training on organizational performance: A study of selected insurance firms in Abuja. *European Journal of Business and Management*, 9(14), 64-72.
- Ojo, J.A. & Adeniji, A. A.(2014). Assessment of the Impact of Compensation on Employees Performance. *Journal of Business Administration and Management*, 10(3), 17-35
- Okechukwu, W. (2017). Influence of training and development, employee performance on job satisfaction among the staff. *Journal of Technology Management and Business*, 4(1), 22-31.
- Olufemi, O. T., Adediran, A. A., & Oyediran, W. O. (2018). Factors affecting students' academic performance in colleges of education in Southwest, Nigeria. *British Journal of Education*, 6(10), 43-56.
- Olufunke, C. & Olubunmi, V. (2016). The Impact of Physical Facilities on Students' Level of Motivation and Academic Performance in Senior Secondary Schools in South West Nigeria. *Journal of Education and Practice (Online)*, 7(4), 17-38.
- Ombewa, K. (2013). *Adoption of best human resource management practices among private secondary schools in Kisumu county, Kenya*. Doctoral dissertation, University of Nairobi.
- Ombewa, K. (2013). *Adoption of best human resource management practices among private secondary schools in Kisumu Country, Kenya*. Doctoral dissertation, University of Nairobi.
- Omisore, B. O. & Okofu, B. I. (2018). Staff Recruitment and Selection Process in the Nigerian Public Service: What is to be done?. *International Journal of Human Resource Studies*, 4(3), 280-297.
- Omotayo, A. O., Pavithra, S., & Adenike, A. A. (2014). Compensation management and organisational commitment in developing economies: Indian perspective. *Journal of Research in Management, Social Sciences and Technology*, 8(8), 1-15.

- Onwuka, E. M. & Onwuchekwa, F. (2018). Compensation management and organizational performance-A study of selected pharmaceutical companies in Awka, Anambra state. *Journal of Business and Management*, 20(9), 36-47.
- Onyango, P. A., Aloka, P. J., & Raburu, P. A. (2018). Effectiveness of guidance and counseling in the management of student behaviour in public secondary schools in Kenya. *Journal of Resources Management*, 2(18), 15-39.
- Opiyo, M. A., Marijani, E., Muendo, P., Odede, R., Leschen, W., & Charo-Karisa, H. (2018). A review of aquaculture production and health management practices of farmed fish in Kenya. *International Journal of Veterinary Science and Medicine*, 6(2), 141-148.
- Oredein, O. (2016). *Effect of school variables on student academic performance in Calabar Municipal Area of Cross River State*. Available at: <https://www.linkedin.com/.../effect-school-variables-student-academic-performance-ca> Retrieved Jan 15 2018 6AM.
- Ørngreen, R., & Levinsen, K. (2017). Workshops as a Research Methodology. *Electronic Journal of E-learning*, 15(1), 70-81.
- Pahuja, S. & Dalal, R. C. (2012). Achieving competitive advantage through HR practices: A case study. *Journal of Strategic Human Resource Management*, 1(2), 35-53.
- Parrett, W. H., & Budge, K. M. (2020). *Turning high-poverty schools into high-performing schools*. New York: Association for Supervision & Curriculum Development.
- Paul, A. (2013). *Effects of secondary school teachers' training and development programmes on students' performance in Tanzania: the case study of selected schools in Dar es salaam*. Unpublished MBA dissertation, Open University of Tanzania
- Priya, N. K., & Sundaram, D. M. K. (2016). A Study on Relationship between HRM Practices, Employee Wellbeing and Performance in The Selected Private Hospitals in Tiruchirappalli. *International Journal of Management (IJM)*, 7(3), 201-243.
- Qureshi, M. O., & Sajjad, S. R. (2015). An Empirical Analysis of the Impact of Compensation on Job Performance and Work-Family Conflict in the Kingdom of Saudi Arabia a Correlation Model. *European Scientific Journal February 2015 edition*, 11(4), 170-187.

- Rahman, F., Jumani, N. B., Akhter, Y., Chisthi, S. U. H., & Ajmal, M. (2011). Relationship between training of teachers and effectiveness teaching. *International Journal of Business and Social Science*, 2(4), 150-160.
- Rahman, W. & Nas, Z. (2013). Employee development and turnover intention: theory validation. *European journal of training and development*, 5(1), 25-48.
- Ramazan, K. (2016). Effects of occupational health and safety practices on organizational commitment, work alienation, and job performance: Using the PLS-SEM approach. *International Journal of Business and Management*, 11(5), 146-166.
- Ray, S., & Ray, I. A. (2011). Human Resource Management Practices and Its Effect on Employees' Job Satisfaction: A Study on Selected Small and Medium Sized Iron & Steel Firms in India. *Public Policy and Administration Research*, 1(1), 22-33.
- Raza, H. (2014). Training and development impact on organizational performance: Empirical evidence from oil and gas sector of Pakistan. *IOSR Journal of Business and Management (IOSR-JBM)*, 16(1), 67-72.
- Rehman, M. S. (2011). Exploring the impact of human resources management on organizational performance: A study of public sector Organizations. *Journal of Business Studies Quarterly*, 2(4), 1-13.
- Republic of Kenya. (2012). *Education sector Report*. Nairobi: Ministry of Education.
- Richard (2009) Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*, 35(1), 718-804.
- Rizal, M., Syafiie, M., Djumahir, I. & Mintarti, R. (2014). Effect of Compensation on Motivation, Organizational Commitment and Employee Performance Studies at Local Revenue Management in Kendari City. *International Journal of Business and Management Invention*, 3(4), 64-79.
- Saeed, B. B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M. A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. *Corporate Social Responsibility and Environmental Management*, 26(2), 424-438.
- Sagwa, E. V. (2014). *Human Resource Management Practices And Performance Of Firms Listed On The Nairobi Securities Exchange*. Doctoral dissertation, University of Nairobi.

- Sahar, M. (2013). Impact of Human Resource Management Practices on Teacher's Performance: A Mediating Role of Monitoring Practices. *Journal of Education and Social sciences*.
- Salama, A. A., Al Shobaki, M. J., Abu Naser, S. S., AlFerjany, A. A. M., & Abu Amuna, Y. M. (2017). The Relationship between Performance Standards and Achieving the Objectives of Supervision at the Islamic University in Gaza. *International Journal of Engineering and Information Systems (IJEAIS)*, 1(10), 89-101.
- Saleh, E.A. (2016). The Impact of Training and Development on Employees Performance and Productivity. *International Journal of management and Sciences*, 28(8), 392-84.
- Samuel, K., Thinguri, D. R. & Koech, D. P. (2020). An analysis of the association between school manager's performance appraisal capacity and the implementation of the human resource development policy in public primary schools, Kenya. *African Journal of Education and Practice*, 6(3), 42 – 53.
- Sang, H. (2015). *The relationship between Human Resource Management practices and Labour Productivity in State Corporations in Kenya*. Unpublished thesis, Jomo Kenyatta University of Agriculture and Technology.
- Selase, A. E. (2018). The impact of recruitment and selection criteria on organizational performance. GN bank, Greater Accra region of Ghana as the mirror. *Journal of Public Administration and Governance*, 8(3), 283-295.
- Sembe, F. & Ayuo, A. (2017). Effect of selected occupational health and safety management practices on job satisfaction of employees in university campuses in Nakuru Town, Kenya. *Journal of Human Resource Management*, 5(5), 70-77.
- Shrader, R., & Siegel, D. S. (2007). Assessing the relationship between human capital and firm performance: Evidence from technology-based new ventures. *Entrepreneurship Theory And Practice*, 31(6), 893-908.
- Singh, N. R. & Kassa, B. (2016). The impact of human resource management practice on organizational performance-a study on Debre Brehan University. *International Journal of Recent Advances in Organizational Behaviour and Decision Sciences*, 1(1), 643-662.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104(2), 333-339.



- Steinkellner, P., Czerny, E. J. & Lueger, G. (2010). Nd. development-focused performance management from a resource-based perspective. *Advances in Business-Related Scientific Research Journal*, 39(1), 251-264.
- Tadesse, A., Zakaria, D. & Zoubeir, L. (2016). Assessment on Performance and Challenges of Ethiopian Construction Industry. *Journal of Architecture and Civil Engineering*, 2(11), 01-11.
- Tahir, N., Yousafzai, I. K., Jan, S. & Hashim, M. (2014). The impact of training and development on employees performance and productivity a case study of United Bank Limited Peshawar City, KPK, Pakistan. *International Journal of Academic Research in Business and Social Sciences*, 4(4), 86-99.
- Tamrat, W. (2017). Private higher education in Africa: Old realities and emerging trends. *International Journal of African Higher Education*, 4(2), 23-49.
- Tan, E. (2014). Human capital theory: A holistic criticism. *Review of Educational Research*, 84(3), 411-445.
- Tang, G., Chen, Y., Jiang, Y., Paille, P., & Jia, J. (2018). Green human resource management practices: scale development and validity. *Asia Pacific Journal of Human Resources*, 56(1), 31-55.
- Tangthong, S. (2014). A causal model of compensation and benefits and reward management on organizational effectiveness of MNCs. *Asian journal of management research*, 5(1), 7-25.
- Thiriku, M. & Were, S. (2016). Effect of Talent Management Strategies on Employee Retention among Private Firms in Kenya: A Case of Data Centre Ltd – Kenya. *International Academic Journal of Human Resource and Business Administration*, 2(2), 145-157.
- Tiwari, P. & Saxena, K. (2012). *Human resource management practices: A Comprehensive review. Pakistan Business Review*, 32(7), 669-705.
- Torrington, D. (2008). *Human Resource Management 11ed.* UK: Pearson.
- Uko, E. (2015). Principalship and effective management of facilities in secondary schools in cross river state, Nigeria. *International Journal of Accademic Research and Reflection*, 3(1), 155-167.

- Ulumma, B. F. & Amah, S. A. (2016). Organisational justice and employee satisfaction: A study of selected banks in Port Harcourt. *International Journal of Advanced Academic Research/Social & Management*, 2(9), 1-12.
- Uyanık, G. K. & Güler, N. (2013). A study on multiple linear regression analysis. *Procedia-Social and Behavioral Sciences*, 106(3), 234-240.
- Uysal, G., & Koca, G. (2019). HR and firms performance at companies in Turkey. A corrective analysis. *Journal of Modern Accounting and editing*, 5(1), 45-48.
- Wachira E.W.(2013). *The effect of technological innovation on the financial of commercial banks in Kenya*. Unpublished Research project, University of Nairobi.
- Wachira, L., & Anyieni, A. (2017). Effect of change management practices on performance of Teachers Service Commission. *International Journal of Science and Research*, 6(5), 525-531.
- Wambua, P. & Genga, P. (2018). Recruitment and selection process on the performance of teachers in machakos county. *International Journal of Social Science and Humanities Research*, 6(1), 495-498.
- Wambulwa, B. N., & Namusonge, E. N. M. P. G. Effect of Occupational Safety and Health on Organizational Performance: A Case of Nzoia Water in Trans-Nzoia County. *Journal of Education*, 6(10), 43-56.
- Wayne, J. H., Musisca, N., & Fleeson, W. (2004). Considering the role of personality in the work–family experience: Relationships of the big five to work–family conflict and facilitation. *Journal of vocational behavior*, 64(1), 108-130.
- Wekesa, L.W. (2012). *Competitive Strategies Employed by Riara group of schools to gain a sustainable competitive advantage*. Unpublished Research Project. University of Nairobi.
- Weru, J. W., Iravo, M. A., & Sakwa, M. (2013). The relationship between training and development on performance of state owned corporations. *International Journal of Academic Research in Business and Social Sciences*, 3(9), 57-81.
- Wheelen, T. & Hunger.D.(2013). *Strategic Management and Business Policy: Toward Global Sustainability*. Boston, MA: Pearson.
- Whitaker, D., & Wilson, L. (2007). Human capital measurement: From insight to action. *Organization Development Journal*, 25(3), 59-69.

- World Bank (2018). Service Delivery Indicators-Education and Health Services in Kenya: Data for Results and Accountability. *Journal of Management*, 27(6), 701-723.
- Wright, P.M. & McMahan, G.C. (1992). Theoretical Perspectives for Strategic Human Resource Management. *Journal of Management*, 18(2), 295-320.
- Yap, M., Holmes, M. R., Hannan, C. A., & Cukier, W. (2011). The relationship between diversity training, organizational commitment, and career satisfaction. *Journal of European industrial training*, 2(3), 42-48.
- York, T. T., Gibson, C. & Rankin, S. (2015). *Defining and Measuring Academic Success*. Practical Assessment. Research and Evaluation, 20 (5), 1-20. Retrieved from <https://pdfs.semanticscholar.org/d30d/0c3c0dda66f1a2176aca7999d0a72633ce8f.pdf>
- Zain, D. & Javed, S. (2015). Impact of Training and Development on Organizational Performance: Empirical Study on Telecommunication Sector of Pakistan. *Journal of Resources Development and Management*, 6(1), 20-37.
- Zainodin, H. J., Noraini, A. & Yap, S. J. (2011). An alternative multicollinearity approach in solving multiple regression problem. *Trends in Applied Sciences Research*, 6(11), 1241-1255.
- Zainuddin, T. & Subri, F. (2016). The School Facilities towards the Improvement of Students' Academic Achievement: Case Study — Secondary Schools in Klang. *Journal of Education and Practice*, 7(33), 70-82.
- Zangirolami-Raimundo, J., Echeimberg, J. D. O., & Leone, C. (2018). Research methodology topics: Cross-sectional studies. *Journal of Human Growth and Development*, 28(3), 356-360.

## APPENDICES

### Appendix I: Participant Information Sheet

Dear Respondent,

My name is Agnes Wanza Mutuku, a PhD student at Machakos University. In order to complete my studies, I am required to undertake a research project. The title of my study is “**Human Resource Management Practices, School Infrastructure and Academic Performance of Secondary Schools in Machakos County, Kenya.**”Your school is among those selected to take part in this study. The purpose of providing this information is to offer you a better understanding of the study, its nature and to allow you to make a decision on your participation that is well informed. You are free to ask for clarification on the information provided, on the study and the on the consent form. Before you append your signature on the consent form, I will gauge your understanding of the study, consent form and the information provided by asking you some questions.

**Background and objective:** The purpose of this study is to examine the influence of human resource management practices on academic performance of secondary schools in Machakos County, Kenya. The study will explore the various human resource management practices adopted in this school and how they affect the academic performance of the school after which, several recommendations for improvement, both in policy and practice will be undertaken.

**Voluntary Participation:**Your participation in this study is purely on a voluntary basis and the choice of being part of the study is based solely on your own judgement.If you

consent to take part in this study, kindly complete the attached questionnaire or respond to the questions asked during the interview sessions. You can withdraw from the study if you wish not to continue without any consequences. You are also free to choose not to answer any question asked during the research process.

**My involvement in the study process:** I will approach you with the help of a research assistant and request you to participate in this study. Once you are satisfied that you fully understand the purpose of this study, I will ask you to append your signature on this informed consent form and then take you through a questionnaire to fill or ask a few questions in an interview format.

**Benefits of taking part in the study:** There is no direct reward in monetary terms in participating in this study. However, the results of the study will help in the understanding of how human resource management practices adopted in this school affects academic performance in the school. This will help several stakeholders including the school management implement better practices or design policies that ensure that a blend of human resource management practices that result to improved academic performance is chosen. The findings will also be made available to Machakos University to facilitate easy access by other researchers who might want to use the study as a reference point when pursuing related studies.

**Risks of taking part in the study:** There are no physical or economic risks to take part in the study. You will however, take some time off your schedule to respond to questions from the researcher that are outlined in the administered questionnaire or the interview

schedule. The researcher's endeavour is for you to spend approximately 20 minutes in responding to the questions.

**Confidentiality and Anonymity:**The information you provide shall be treated with utmost confidentiality. It will only be used for the purpose intended in this study. For the purpose of anonymity, your name will not be written on any forms nor will it be used during the final report publication. All materials used during the study will be kept under lock and key and access will only be granted to the personnel assisting in this study. Files saved electronically will be password and fire-wall protected.

**Compensation:** You will not be compensated for taking part in the study.

**Conflict of interest:** The researcher and the supervisors confirm that there is no conflict of interest amongst them.

In case you need any clarification, feel free to contact the researcher (Agnes Wanza Mutuku, Tel; 0713658795; Email;gnswanza2016@gmail.com).

**Appendix II: Consent Form**

To show your consent to take part in the study, please append your signature below:

I consent to take part in this study. An explanation of the nature and the potential risks of the study has been given to me. I understand that I am voluntarily taking part in this study and that my status of employment status in this school will not be affected whatsoever by my participation or lack of it. I am aware that with no consequences or explanation and at any stage of the study, I may choose to stop my participation. I have reassurance that the personal information I provide will be kept confidential. The investigator has adequately answered all my questions and concerns about my taking part in this study. I confirm that the investigator also asked me questions to ascertain my understanding of the provided information.

Signature (or thumbprint) ..... Date.....

This is a confirmation that I have explained with clarity the details of this consent letter and the nature of the study to the participant and that the participant has voluntarily and without undue pressure or coercion decided to take part in the study.

Researcher Signature..... Date.....

### **Appendix III: Questionnaire for Respondents**

This questionnaire is intended to facilitate the collection of data and information with respect to the study: **Human Resource Management Practices, School Infrastructure and Academic Performance of Secondary Schools in Machakos County**. You are kindly requested to answer the questions as honestly as possible.

Please fill the open spaces provided

#### **PART 1: BACKGROUND INFORMATION**

**Tick one appropriate answer**

1. Gender      (a) Male      [   ]      (b) Female      [   ]
  
2. Indicate your age bracket (years)
  - a) 30 and below      [   ]
  - b) 31-40      [   ]
  - c) 41-50      [   ]
  - d) 51-60      [   ]
  - e) Above 60      [   ]
  
3. Highest Level of education
  - a) Diploma      [   ]
  - b) Bachelor's degree [   ]
  - c) Master's degree [   ]



d) Doctorate [ ]

e) Other (Specify) \_\_\_\_\_

4. Year of graduation from university \_\_\_\_\_

5. How many years have you worked as a principal in this school? \_\_\_\_\_

6. Category of your school

a) National [ ]

b) Extra county [ ]

c) County [ ]

d) Sub county [ ]

e) Private [ ]

7. Sub-County where the school is located \_\_\_\_\_

8. Type of school

a) Boys [ ] b) Girls [ ] c) Mixed boarding [ ] d) Day school [ ]

## PART II: HUMAN RESOURCE MANAGEMENT PRACTICES

### Section A: Recruitment and Selection of Teaching Staff

9. Using the following scale, **5-Strongly Agree, 4-Agree, 3- Neutral, 2-Disagree, 1-Strongly Disagree**, to kindly state extent to which you agree or disagree with the following statements regarding the recruitment and selection of teaching staff in your school. Kindly tick (✓) only one option.

	Statement	Response				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A	Notifications of teaching vacancies in this school are always open for all.					
B	The school has a policy which guides the interview process during the recruitment of teaching staff.					
C	Selection of teaching staff in this school is undertaken based on merit.					
D	The recruitment and selection process in this school leads to employment of competent teaching staff.					
E	Candidates are selected on the basis of their skills and qualifications.					

10. In your opinion, does teaching staff recruitment and selection influence academic performance in your school?

a) Yes        [   ]

b) No         [   ]

11. If yes in 10, in what ways has the recruitment and selection of teaching staff affected the academic performance in your school?

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12. Mention the other aspects of teaching staff recruitment and selection that are being practised in your school and influence academic performance?

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13. Suggest possible ways of improving recruitment and selection of teaching staff practices in the school to enhance academic performance.

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**Section B: Teaching Staff Training and Development**

14. Kindly indicate the extent to which you agree or disagree with the following statements on teaching staff training and development in your school based on the following scale; **5-Strongly Agree, 4-Agree, 3- Neutral, 2-disagree to 1-Strongly Disagree**. Tick (√) only one option.

	Statement	Response				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A	The school has an established training and career development policy.					
B	The school has diverse in-house training programs for teachers.					
C	Teachers in this school are accorded the opportunity to attend workshops, seminars and conferences to expand their knowledge.					
D	The school accords equal training and career development opportunities for all teaching staff members.					
E	The teaching staff training and development opportunities in this school lead to promotions.					

15. In your opinion, does teaching staff training and development practices influence academic performance in your school?

a) Yes            [   ]

b) No            [   ]

16. If yes in 15, in what ways has teaching staff training and development influenced the academic performance in your school?

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17. Mention other aspects of training and development of teaching being practiced in your school that you think have an influence on academic performance in your school?

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18. Suggest possible ways through which staff training and development can be improved to enhance academic performance in your school

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### Section C: Teaching Staff Compensation

19. Based on the following scale, **5-Strongly agree, 4-Agree, 3- Neutral, 2-Disagree** to **1-Strongly Disagree**, kindly indicate the extent to which you agree or disagree with the following statements on compensation practices in your school. Tick (√) only one option.

	Statement	Response				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A	The school offers good allowances packages compared to other schools.					
B	There is an established overtime policy in this school.					
C	The school offers diverse incentives to teachers.					
D	The teachers who produce good results are always recognized and rewarded.					
E	There is fairness and equity in the manner in which allowances and other benefits are given to teachers in this school.					
F	The rewards and benefits offered by the school are proportionate with the amount and quality of work done by teachers.					

20. In your opinion, do you think that the compensation of teaching staff influences academic performance in your school?

a) Yes        [   ]

b) No         [   ]

21. If your answer is yes in 20, what are the ways through which compensation for your teaching staff has influenced the academic performance in your school?

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22. Mention other aspects of the teaching staff compensation not mentioned above that influence academic performance in your school.

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23. Suggest other possible ways in which the compensation of teaching staff can be improved to enhance academic performance in your school?

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**Section D: Teaching Staff Safety**

24. Kindly indicate the extent to which you agree with the following statements on teaching safety in your school. Use the following scale; **5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree to 1-Strongly Disagree**. Tick (✓) only one option.

	Statement	Response				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A	There is a clear policy on health and safety of teachers in the school.					
B	The working area for our teachers is clean and free of pollution.					
C	The workspace in this school is well designed to provide privacy for our teachers.					
D	There is no harassment in this school's work environment					
E	There is an accessible health facility to attend to accidents in the school.					
F	The school offers descent housing and a safe environment for our teachers.					
G	Teachers in this are highly sensitized on safety issues.					



25. In your opinion, do you think teaching staff safety influences academic performance in your school?

a) Yes            [   ]

b) No            [   ]

26. If yes in 25, highlight the ways in which the safety of teaching staff has influenced the academic performance in your school?

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27. Mention other aspects of teaching safety not mentioned above that influence academic performance in your school.

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28. Suggest ways in which occupational safety practices can be improved in your school to enhance academic performance

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29. Other than the human resource management practices mentioned above, name any other practices that you think influence academic performance in your school

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**Section E: School Infrastructure**

30. Using the following scale; **5-Strongly Agree, 4 Agree , 3- Neutral, 2-Disagree** to **1-Strongly Disagree**, give your assessment of the state of infrastructure in this school by stating your level of agreement or disagreement with the following statements. Tick (√) only one option.

	<b>Statement</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
A	There are enough science laboratories in the school.					
B	The laboratories in this school are well equipped.					
C	Students in this school do experiments individually.					
D	The school has a well-equipped library.					
E	Students in this school use the library for individual studies and references.					
F	The school has adequate classrooms.					
H	The classrooms in this school are big enough to accommodate all students.					
I	The school has playing grounds for co-curricular activities.					
J	The school has adequate halls.					

31. In your opinion does the school infrastructure assist the learners in improving their academic performance?

a) Yes [   ]

b) No [   ]

32. What other infrastructure would you recommend for your school in order of priority?

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**.. Section E: Academic Performance**

33. Does the school perform well in K.C.S.E examination?

a) Yes [   ]

b. No [   ]

34. Kindly indicate the extent to which you agree with the following statements on academic performance in your school based on the following scale; **5-Strongly Agree, 4-agree, 3- Neutral 2-Disagree to 1-Strongly Disagree.**

	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A	Most of our students attain university entry mean grade C+ and above.					
B	The overall mean score of the school is above 5.					
C	The school is ranked among the top best performing schools in the county.					
D	Most of our students qualify for prestigious courses' (e.g. law, engineering) university entry grades.					

35. If your answer to No.33 above is yes, what in your opinion contributes to the good performance in your school?

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36. If your answer to No.34 above is no, what in your opinion contributes to low performance in your school?

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37. Suggest other measures that you think can be put in place to enhance academic performance in your school

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**Thank you for your participation!**

## **Appendix IV: Interview Schedule**

The following are the questions to be asked during the interview sessions.

### **Section A: Background Information;**

1. Gender:
2. Age:
3. Level of education:
4. Year of graduation
5. No. of years as principal
6. Please state your teaching subjects
7. Category of your school

### **Section B: Human Resource Management Practices and Academic Performance**

8. Are there students who have qualified to join the university in the last 6 years from your school? If yes, how many and what courses are popular?
9. Why do you think students do or do not attain good results?
10. What is your opinion about the academic performance of the school?
11. What is the highest mean achieved in your school in the last 6 years?
12. Does recruitment and selection of teaching staff influence academic performance?  
How does it affect academic performance of your school?
13. How do you identify the training needs of your teachers?
14. Does the level of education of the teachers' influence performance?

15. How do you compensate your teachers?
16. Does compensation translate to good performance?
17. Do you compensate your teachers for overtime?
18. How do you ensure safety of the learners and teachers?
  
19. Do you think infrastructure influences academic performance? If yes, how does it influence the academic performance of your school?

## Appendix V: Validity Test Results

<b>Recruitment and selection of teaching staff</b>							<b>Total</b>
		<b>Item 1</b>	<b>Item 2</b>	<b>Item 3</b>	<b>Item 4</b>	<b>Item 5</b>	<b>Score</b>
Item 1	Pearson Correlation	1	.869**	.826**	.555*	.773**	.882**
	Sig. (2-tailed)		0.000	0.000	0.032	0.001	0.000
	N	15	15	15	15	15	15
Item 2	Pearson Correlation	.869**	1	.923**	.698**	.910**	.961**
	Sig. (2-tailed)	0.000		0.000	0.004	0.000	0.000
	N	15	15	15	15	15	15
Item 3	Pearson Correlation	.826**	.923**	1	.757**	.947**	.970**
	Sig. (2-tailed)	0.000	0.000		0.001	0.000	0.000
	N	15	15	15	15	15	15
Item 4	Pearson Correlation	.555*	.698**	.757**	1	.766**	.815**
	Sig. (2-tailed)	0.032	0.004	0.001		0.001	0.000
	N	15	15	15	15	15	15
Item 5	Pearson Correlation	.773**	.910**	.947**	.766**	1	.958**
	Sig. (2-tailed)	0.001	0.000	0.000	0.001		0.000
	N	15	15	15	15	15	15
Total							
Score	Pearson Correlation	.882**	.961**	.970**	.815**	.958**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	15	15	15	15	15	15

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

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

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**Teaching Staff Training and Development**

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		Item 1	Item 2	Item 3	Item 4	Item 5	Total Score
Item 1	Pearson Correlation	1	.798**	.598*	0.491	0.421	.891**
	Sig. (2-tailed)		0.000	0.019	0.063	0.118	0.000
	N	15	15	15	15	15	15
Item 2	Pearson Correlation	.798**	1	0.506	0.28	0.349	.828**
	Sig. (2-tailed)	0		0.054	0.312	0.202	0.000
	N	15	15	15	15	15	15
Item 3	Pearson Correlation	.598*	0.506	1	.575*	0.217	.695**
	Sig. (2-tailed)	0.019	0.054		0.025	0.437	0.004
	N	15	15	15	15	15	15
Item 4	Pearson Correlation	0.491	0.28	.575*	1	0.446	.670**
	Sig. (2-tailed)	0.063	0.312	0.025		0.096	0.006
	N	15	15	15	15	15	15
Item 5	Pearson Correlation	0.421	0.349	0.217	0.446	1	.673**
	Sig. (2-tailed)	0.118	0.202	0.437	0.096		0.006
	N	15	15	15	15	15	15
Total							
Score	Pearson Correlation	.891**	.828**	.695**	.670**	.673**	1
	Sig. (2-tailed)	0.000	0.000	0.004	0.006	0.006	
	N	15	15	15	15	15	15

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

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

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**Teaching Staff Compensation**


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		<b>Item 1</b>	<b>Item 2</b>	<b>Item 3</b>	<b>Item 4</b>	<b>Item 5</b>	<b>Item 6</b>	<b>Total Score</b>
Item 1	Pearson Correlation	1	.678**	.611*	0.11	.611*	0.335	.781**
	Sig. (2-tailed)		0.005	0.016	0.695	0.016	0.223	0.001
	N	15	15	15	15	15	15	15
Item 2	Pearson Correlation	.678**	1	.543*	0.305	.526*	0.338	.801**
	Sig. (2-tailed)	0.005		0.037	0.269	0.044	0.218	0.000
	N	15	15	15	15	15	15	15
Item 3	Pearson Correlation	.611*	.543*	1	-0.158	.963**	.663**	.875**
	Sig. (2-tailed)	0.016	0.037		0.574	0.000	0.007	0.000
	N	15	15	15	15	15	15	15
Item 4	Pearson Correlation	0.11	0.305	-0.158	1	-0.254	0.233	0.696
	Sig. (2-tailed)	0.695	0.269	0.574		0.361	0.403	0.004
	N	15	15	15	15	15	15	15
Item 5	Pearson Correlation	.611*	.526*	.963**	-0.254	1	.686**	.865**
	Sig. (2-tailed)	0.016	0.044	0.000	0.361		0.005	0.000
	N	15	15	15	15	15	15	15
Item 6	Pearson Correlation	0.335	0.338	.663**	0.233	.686**	1	.747**
	Sig. (2-tailed)	0.223	0.218	0.007	0.403	0.005		0.001
	N	15	15	15	15	15	15	15
Total								
Score	Pearson Correlation	.781**	.801**	.875**	0.696	.865**	.747**	1
	Sig. (2-tailed)	0.001	0.000	0.000	0.004	0.000	0.001	
	N	15	15	15	15	15	15	15

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

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

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**Teaching Staff Safety**


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		<b>Item 1</b>	<b>Item 2</b>	<b>Item 3</b>	<b>Item 4</b>	<b>Item 5</b>	<b>Item 6</b>	<b>Item 7</b>	<b>Composite Score</b>
Item 1	Pearson Correlation	1	.651**	.739**	.766**	0.19 0.49	0.381	0.458	.718**
	Sig. (2-tailed)		0.009	0.002	0.001	8	0.162	0.086	0.003
	N	15	15	15	15	15	15	15	15
Item 2	Pearson Correlation	.651**	1	.863**	.850**	0.45 0.09	.671**	.828**	.925**
	Sig. (2-tailed)	0.00		0.000	0.000	1	0.006	0.000	0.000
	N	15	15	15	15	15	15	15	15
Item 3	Pearson Correlation	.739**	.863**	1	.836**	0.36 0.18	.533*	.653**	.865**
	Sig. (2-tailed)	0.00	0.000		0.000	2	0.041	0.008	0.000
	N	15	15	15	15	15	15	15	15
Item 4	Pearson Correlation	.766**	.850**	.836**	1	.537* 0.03	.763**	.821**	.958**
	Sig. (2-tailed)	0.00	0.000	0.000		9	0.001	0.000	0.000
	N	15	15	15	15	15	15	15	15
Item 5	Pearson Correlation	0.19 0.49	0.451	0.364	.537*	1	0.477	.525*	.564*
	Sig. (2-tailed)	8	0.091	0.182	0.039		0.072	0.045	0.028
	N	15	15	15	15	15	15	15	15
Item 6	Pearson Correlation	0.38 0.16	.671**	.533*	.763**	0.47 0.07	7	1	.949**
	Sig. (2-tailed)	0.07	0.006	0.041	0.001	2		0.000	0.000
	N	15	15	15	15	15	15	15	15
Item 7	Pearson Correlation	0.45 0.08	.828**	.653**	.821**	.525* 0.04	* 0.949**	1	.916**
	Sig. (2-tailed)	0.04	0.000	0.008	0.000	5	0.000		0.000
	N	15	15	15	15	15	15	15	15
Composite Score	Pearson Correlation	.718**	.925**	.865**	.958**	.564* 0.02	* .839**	.916**	1
	Sig. (2-tailed)	0.00	0.000	0.000	0.000	8	0.000	0.000	
	N	15	15	15	15	15	15	15	15

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

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

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## School Infrastructure

		Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Total Score
Item 1	Pearson Correlation	1	.714*	.738**	.716**	.692**	0.424	0.459	0.401	.573*	.769**
	Sig. (2-tailed)		0.003	0.002	0.003	0.004	0.115	0.085	0.139	0.026	0.001
	N	15	15	15	15	15	15	15	15	15	15
Item 2	Pearson Correlation	.714**	1	0.387	0.439	.582*	.675**	.682**	0.456	.526*	.683**
	Sig. (2-tailed)	0.003		0.154	0.102	0.023	0.006	0.005	0.088	0.044	0.005
	N	15	15	15	15	15	15	15	15	15	15
Item 3	Pearson Correlation	.738**	0.387	1	.934**	.820**	0.482	0.497	.652*	.770**	.880**
	Sig. (2-tailed)	0.002	0.154		0.000	0.000	0.069	0.059	0.008	0.001	0.000
	N	15	15	15	15	15	15	15	15	15	15
Item 4	Pearson Correlation	.716**	0.439	.934**	1	.896**	.528*	.521*	.652*	.792**	.906**
	Sig. (2-tailed)	0.003	0.102	0.000		0.000	0.043	0.046	0.008	0.000	0.000
	N	15	15	15	15	15	15	15	15	15	15
Item 5	Pearson Correlation	.692**	.582*	.820**	.896**	1	0.51	0.503	.630*	.876**	.904**
	Sig. (2-tailed)	0.004	0.023	0.000	0.000		0.052	0.056	0.012	0.000	0.000
	N	15	15	15	15	15	15	15	15	15	15
Item 6	Pearson Correlation	0.424	.675*	0.482	.528*	0.51	1	.987**	.886*	.626*	.772**
	Sig. (2-tailed)	0.115	0.006	0.069	0.043	0.052		0.000	0.000	0.013	0.001
	N	15	15	15	15	15	15	15	15	15	15
Item 7	Pearson Correlation	0.459	.682*	0.497	.521*	0.503	.987**	1	.883*	.608*	.775**
	Sig. (2-tailed)	0.085	0.005	0.059	0.046	0.056	0.000		0.000	0.016	0.001
	N	15	15	15	15	15	15	15	15	15	15
Item 8	Pearson Correlation	0.401	0.456	.652**	.652**	.630*	.886**	.883**	1	.748**	.831**
	Sig. (2-tailed)	0.139	0.088	0.008	0.008	0.012	0.000	0.000		0.001	0.000
	N	15	15	15	15	15	15	15	15	15	15
Item 9	Pearson Correlation	.573*	.526*	.770**	.792**	.876**	.626*	.608*	.748*	1	.895**
	Sig. (2-tailed)	0.026	0.044	0.001	0.000	0.000	0.013	0.016	0.001		0.000
	N	15	15	15	15	15	15	15	15	15	15
Total Score	Pearson Correlation	.769**	.683*	.880**	.906**	.904**	.772**	.775**	.831*	.895**	1
	Sig. (2-tailed)	0.001	0.005	0.000	0.000	0.000	0.001	0.001	0.000	0.000	
	N	15	15	15	15	15	15	15	15	15	15

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

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

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**Academic Performance**

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		<b>Item 1</b>	<b>Item 2</b>	<b>Item 3</b>	<b>Item 4</b>	<b>Total Score</b>
Item 1	Pearson Correlation	1	.788**	.932**	.918**	.951**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	15	15	15	15	15
Item 2	Pearson Correlation	.788**	1	.792**	.838**	.905**
	Sig. (2-tailed)	0.000		0.000	0.000	0.000
	N	15	15	15	15	15
Item 3	Pearson Correlation	.932**	.792**	1	.965**	.968**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000
	N	15	15	15	15	15
Item 4	Pearson Correlation	.918**	.838**	.965**	1	.978**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000
	N	15	15	15	15	15
Total Score	Pearson Correlation	.951**	.905**	.968**	.978**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	15	15	15	15	15

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

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**Appendix VI: KCSE Performance in Machakos County (2013-2019)**

<b>YEAR</b>	<b>TOTAL</b>	<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D+</b>	<b>D</b>	<b>D-</b>	<b>E</b>	<b>COUNTY MEAN</b>
2019	27222	2	117	374	788	1198	1572	2274	3105	3810	5698	4930	863	3.744
2018	23856	4	53	210	531	906	1319	1751	2658	3641	5542	6158	1224	3.11
2017	23479	0	34	144	353	642	905	1414	2133	3252	5212	7620	1733	3.112
2016	21662	0	81	270	522	799	1163	1581	2144	3046	4515	6176	1365	3.29
2015	20891	12	153	437	763	1283	1808	2409	3133	3531	4118	2921	317	3.725
2014	19152	28	169	442	799	1151	1653	2179	2966	3356	3651	2470	284	4.799
2013	18416	18	171	728	998	257	1868	2381	2801	3392	2387	338	404	4.567

Source: Machakos County Director of Education Office 2019

**PERCENTAGE OF C+ AND ABOVE**

2019	14.88%
2018	12.68%
2017	8.83%
2016	13.08%
2015	21.35%
2014	22.0%
2013	27%

**Appendix VII: Sample KCSE Results From Schools in Other Counties**

**2013**

	<b>SCHOOL</b>	<b>COUNTY</b>	<b>CATEGORY</b>	<b>MEAN</b>
1	Alliance Girls	Kiambu	National	10.20
2	Precious Blood Riruta	Kiambu	Extra –county	9.6
3	Kyeni Girls	Embu	County	10.8
4	Nguvuu Boys	Embu	County	7.2
5	Kisima Mized	Nyandarua	Private	9.86
6	Thome Boys	Laikipia	Sub County	7.6
7	Maseno Boys	Kisumu	National	9.7
8	Machakos Boys	Machakos	National	7.6
9	Alim	Machakos	Private	7.61
10	Mumbuni Boys	Machakos	Extra-county	7.23

**2014**

	<b>SCHOOL</b>	<b>COUNTY</b>	<b>CATEGORY</b>	<b>MEAN</b>
1	Alliance Girls	Kiambu	National	10.18
2	Chavakali Boys	Siaya	National	8.0
3.	Moi High	Baringo	Extra county	8.9
4	Kenya high	National	Kiambu	9.7
5	St. Francis Girls	Thika	National	8.6
6	Loreto Limuru Girls	Kiambu	National	7.4
7	Moi Tea Girls	Baringo	Extra county	10.6
8	Kathiani Girls	Machakos	National	9.3
9	Lukenya school	Machakos	Private	9.45
10	Machakos school	Machakos	National	8.75

**2015**

	<b>SCHOOL</b>	<b>COUNTY</b>	<b>CATEGORY</b>	<b>MEAN</b>
1	Asumbi Girls	Homabay	National	10.84
2	Friends Kamusinga	Bungoma	National	10.28
3	Lukenya Boys	Machakos	Private	10.07
4	Alliance Boys	Bungoma	National	11.35
5	Moi High Kabarak	Baringo	National;	11.66
6	Meru School	Meru	National	9.651
7	Makueni Boys	Makueni	National	9.58
8	St. Francis Rangala	Siaya	Extra County	10.90
9	Machakos School	Machakos	National	9.46
10	Kathiani Boys	Machakos	Extra County	8.4
11	Ndalani	Machakos	Sub County	8.01
12	Vyulya Girls	Machakos	County	7.58

2016

	<b>SCHOOL</b>	<b>COUNTY</b>	<b>CATEGORY</b>	<b>MEAN</b>
1	Alliance girls	Kiambu	National	10.18
2	Maranda	Homabay	National	9.911
3	Alliance boys	Kiambu	National	9.55
4	Friends kamusinga	Bungoma		9.63
5	Moi Girls	Kericho		9.7
6	Pangani	Nairobi	National	9.56
7	Matungulu Girls	Machakos	Extra County	6.96
8	Kathiani Girls	Machakos	National	6.78
10	Mumbuni Boys	Machakos	Extra County	7.21



**2017**

	<b>SCHOOL</b>	<b>COUNTY</b>	<b>CATEGORY</b>	<b>MEAN</b>
1	Alliance girls	Kiambu	National	9.52
2	Asumbi girls	Homabay	National	10.84
3	Maseno	Kisumu	National	11.38
4	Makueni boys	Makueni	National	9.58
5	Chogoria girls	Tharaka Nithi	Extra County	10.58
6	Machakos school	Machakos	National	7.8
7	Kathiani girls	Machakos	National	5.81
8	Lukenya school	Machakos	Private	7.52
9	Machakos girls	Machakos	Extra County	709
10	Alim	Machakos	Private	8.06

**2018**

	<b>SCHOOL</b>	<b>COUNTY</b>	<b>CATEGORY</b>	<b>MEAN</b>
1	Alliance boys	Kiambu	National	9.25
2	Alliance girls	Kiambu	National	9.65
3	Kisima mixed	Nyandarua	Private	8.37
4	Orero boys	Homabay	Extra County	8.7
5	Kyeni girls	Embu	Extra County	8.6
6	Machakos Boys	Machakos	National	7.6
7	Muthetheni Girls	Machakos	Extra County	6.8
8	Mumbuni Boys	Machakos	Extra County	6.5
9	Lukenya Boys	Machakos	Private	7.16

**2019**

	<b>SCHOOL</b>	<b>COUNTY</b>	<b>CATEGORY</b>	<b>MEAN</b>
1	Kenya High school	Nairobi	National	10.467
2	Kapsabet boys	Nandi	National	10.11
3	Alliance High	Kiambu	National	10.019
4	Makueni boys	Makueni	National	9.58
5	Mary Hill	Kiambu	National	9.98
6	Machakos school	Machakos	National	8.620
7	Kathiani girls	Machakos	National	5.81
8	Carmel Girls	Machakos	Private	8.5
9	Machakos girls	Machakos	Extra County	7.07
10	Matungulu Boys	Machakos	Extra county	7.3

**Source:Knec.online**

**Appendix VIII: Top Twenty (20) Schools Mean Score per Year**

	<b>SCHOOL</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
1.	LUKENYA SCHOOL	7.16	7.52	7.422	10.06	9.45	8.7
2.	MACHAKOS GIRLS	7.35	7.09	7.99	9.48	9.45	8.79
3.	MACHAKOS SCHOOL	7.59	7.839	7.778	9.46	8.74	9.04
4.	ALIM BOYS SCHOOL		8.06	8.25	9.43	8.37	7.61
5.	CAMEL GIRLS	7.74	7.240	7.906	9.18	9.29	8.49
6.	KATHIANI BOYS	5.04	6.258	6.78	8.479	8.3	7.76
7.	TERESA DELIMA GIRLS	5.914	5.16	5.79	8.31	8.41	7.95
8.	LUKENYA GIRLS HIGH SCHOOL	6.027	5.696	5.75	8.29	7.22	7.55
9.	ST. CATHERINE GIRLS	5.960	5.971	6.818	8.16	7.035	7.48
10.	MUMBUNI BOYS	6.59	6.147	7.231	7.14	7.89	7.23
11.	NDALANI SEC.	7.76	7.099	73990	8.01	8.46	8.64
12.	VYULYA GIRLS	6.319	6.055	6.598	7.8	7.75	7.39
13.	KATHIANI GIRLS	6.520	5.819	7.11	7.8	7.73	7.37
14.	MATUNGULU GIRLS	6.36	6.147	6.967	7.79	7.73	7.15
15.	TALA BOYS HIGH	5.75	5.988	5.538	7.46	6.62	6.328
16.	NDALANI M.C.F	6.41	4.519	4.579	6.55	7.41	5.98
17.	BRILIANT KAMOLO MIXED	5.44	3.85	4.85	7.32	6.9	5.98
18.	MUTHETHENI GIRLS	6.87	5.761	63891	7.28	7.49	6.72
19.	POPE PAULBOYS	5.75	4.545	6.172	7.2	7.17	7.35
20.	AIC KUNIKILA	5.58	5.488	5.396	7.19	6.18	6.27

**Appendix IX: Bottom 20 Secondary Schools**

	<b>SCHOOL</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
1.	MACHAKOS S.F.O	1.95	1.970	2.065	1.6	1.72	2.25
2.	ANCPC NDOVOINI	1.75	1.778	1.837	1.886	2.6	2.27
3	KATONYINI MIXED		1.65	1.95	1.95	2.11	2.15
4	KATHIANI SLOPES	2.15	2.33	2.12	1.90	2.13	2.472
5	METROPOLITAN HIGH		1.591	1.813	1.920	2.05	2.16
6	KYAANI MIXED SCH	2.74	2.040	2.424	2.001	2.08	2.06
7	MUTHWII ACADEMY		1.600	1.902	2.09	2.03	–
8	MWANGAZA SCHOOL	2.33	2.266	1.958	2.1	2.7	3.58
9	KYENI AIC MIXED	1.174	–	2.065	2.4	2.7	2.08
10	MUTITUNI SA	2.43	1.940	2.030	2.15	2.3	2.214
11	UPPER KITANGA MIXED	1.811	1.764	1.818	2.16	2.48	2.23
12	KYULU SCHOOL	-	–	2.167	2.165	2.001	1.42
13	MASII CENTRAL HIGH SCH	1.75	1.526	1.580	2.18	2.51	2.18
14	YATTA STAR GIRLS	2.25	1.700	1.800	2.20	2.82	2.02
15	ST. PAULS BOYS SCH	2.22	2.156	1.706	2.1	2.2	2.23
16	ST. VALENTINE GIRLS	1.55	1.400	1.571	2.2	1.95	2.81
17	ST. LUKES MIXED SCH	1.68	1.651	1.526	2.28	2.34	2.44
18	SUNRISE GIRLS SCH	2.04	2.06	1.978	2.30	2.05	
19	ST. NIMROD MIXED SCH				2.3	2.5	2.25
20	KYENI EXCEL MIXED SCH	1.174	1.526	1.580	2.318	2.5	2.04

**Source: Machakos County Education Office .2019**

## Appendix X: Research Authorization from the University



### **MACHAKOS UNIVERSITY** **OFFICE OF THE DEAN GRADUATE SCHOOL**

---

Telephone: 254-(0)735247939, (0)723805929 P.O Box 136-90100  
Email: [graduateschool@mksu.ac.ke](mailto:graduateschool@mksu.ac.ke) Machakos  
Website: [www.machakosuniversity.ac.ke](http://www.machakosuniversity.ac.ke) KENYA

REF. MksU/GS/SS/011/VOL.1

28<sup>th</sup> May, 2020

The Director,  
National Commission for Science, Technology and Innovation  
P.O Box 30623,  
**NAIROBI**

Dear Sir

**RE: AGNES WANZA MUTUKU-D86-7335-2016**

The above named is a PhD student in the second year of study and has cleared course work. The University has cleared her to conduct a research entitled: **“Human Resource Management Practices and Academic Performance of Secondary Schools in Machakos County, Kenya”**

Kindly assist her with a Research Permit in order to undertake the research.

Thank you

A handwritten signature in black ink, appearing to read 'Richard Peter'.

**DR. RICHARD PETER, PhD**  
**DEAN GRADUATE SCHOOL**  
KRP/anm



ISO 9001:2008 Certified .....Soaring Heights in Transforming Industry and Economy

**Appendix XI: Approval from County Direction of Education Office**

**MINISTRY OF EDUCATION**  
STATE DEPARTMENT OF EDUCATION

Telegrams: "SCHOOLING" Machakos  
Telephone: Machakos (  
Fax: Machakos  
Email -[cdemachakos@yahoo.com](mailto:cdemachakos@yahoo.com)  
When replying please quote



OFFICE OF THE  
COUNTY DIRECTOR OF  
EDUCATION  
P.O. BOX 2666-90100,  
**MACHAKOS**

**MKS/ED/CDE/R/4/VOL.4/137**

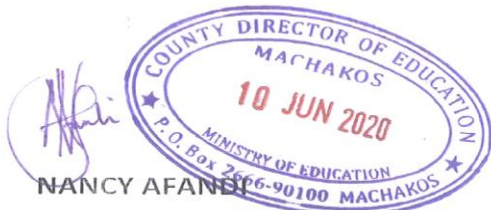
**Date: 10<sup>th</sup> June, 2020**

Agnes Wanza Mutuku  
Machakos University

**RE: RESEARCH AUTHORIZATION**

Reference is made to the letter from National Commission for Science, Technology and Innovation Ref: **NACOSTI/P/20/5126** dated **9<sup>th</sup> June, 2020**.

You are hereby authorized to carry out your research on, "**Human Resource Management Practices and Academic performance of Secondary Schools in Machakos County.**" for a period ending **9<sup>th</sup> June, 2021**.



**NANCY AFANDI**  
**FOR: COUNTY DIRECTOR OF EDUCATION**  
**MACHAKOS**

**Appendix XII: Research Permit**



REPUBLIC OF KENYA



NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 622382

Date of Issue: 09/June/2020

**RESEARCH LICENSE**



This is to Certify that Ms.. AGNES Wanza MUTUKU of Machakos University, has been licensed to conduct research in Machakos on the topic: HUMAN RESOURCE MANAGEMENT PRACTICES AND ACADEMIC PERFORMANCES OF SECONDARY SCHOOLS IN MACHAKOS COUNTY, KENYA for the period ending : 09/June/2021.

License No: NACOSTI/P/20/5126

622382

Applicant Identification Number

Director General  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION

Verification QR Code



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