

# Effect of Human Resource Management Practices on Students' Academic Performance in Public Secondary Schools in Machakos Sub-County, Machakos County, Kenya

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**Abstract:** *The interest in school leadership is based on the belief it can significantly influence directly or indirectly, the teaching and quality of learning in schools, and as a result student achievement. This study sought to establish the effect of human resource management practices on students' academic performance in public secondary schools in Machakos Sub-County, Machakos County, Kenya. The study was based on the human capital theory. A descriptive research design was used for this study. The target population for this study were 48 principals and 400 teachers totalling 448 respondents from which a sample of 15 principals and 120 teachers were chosen using simple random sampling. Questionnaires were used to collect data from the respondents. Validity was established through expert judgment. The research used Cronbach's alpha formula to test reliability. Cronbach's alpha coefficient of 0.9641 was realized indicating the consistency of research instruments. Data collected were coded and analysed with the help of the Stata analysis package. Descriptive statistics in the form of mean and standard deviation were used to display the data. Inferential statistics specifically regression analysis was used to show the relationship and strength of the relationships among study variables respectively. The study found that human resource management practices had a positive and statistically significant effect on students' academic performance. Based on the findings, the study recommends that in the aspect of human resource management practices, there is a need for the principal to recognize teachers who have contributed positively to improving the quality of education; principals ought to devise other ways of curriculum implementation practices which motivates the teachers and the students other than monitoring the classroom attendance of the teachers, regular internal assessments in the school, or even emphasizing covering the syllabus on time.*

**Keywords:** *Human Resource Management, Students' Academic Performance, Public Secondary Schools*

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## I. INTRODUCTION

### 1.1 Background information

Education is, without a doubt, one of the most powerful tools for liberating students' minds. Education and inborn wisdom can change a person into a valued asset in a country's economic development. To obtain higher academic success, it is playing in improving the academic outcomes of learners. The interest in school leadership is based on the belief it can significantly influence whether directly or indirectly, the teaching and learning quality in schools, and as a result student achievement. Numerous educational reforms in the past years have purposed to raise the academic achievement standards among students. In Australia for instance, these reforms have placed school leadership in a position of having great interest in global education.

School leadership recognizes the principal as the primary holder of responsibilities regarding establishing school goals, supervision, and training that encourages academic performance (Betonio, Tecson, Vizcara, Codilla, & Urbiztondo, 2020). This view seems to focus on only the role of administrators as instructional leaders. Agasisti, Falzetti, and Soncin (2020) identified five main areas of administrative practices implemented by Italian school principals namely operations, monitoring, target setting, people, and leadership and based on an educational production function established that the indicators about managerial practices have positive coefficients, but low statistical significance on students' outcomes. Operations refer to process standardization, use of best practices and decisions about school curriculum; monitoring indicates the principals' supervision of school activities and performance and the management of anomalies in school processes; target setting refers to the principal's ability to set clear goals for the school and managing resources to reach them;

people indicates whether the principle ensures the teachers' continuous professional development and can retain best teachers in the school; while leadership measures the principals' leadership skills and their ability to clearly define roles and responsibilities within the school (Agasisti et al., 2020).

Within Africa, a study in Nigeria by Ossai (2021) showed there was a significant relationship between Principals' administrative strategies and students' academic performance. In Tanzania Thomas and Onyango (2022) further noted that to implement the curriculum effectively, school administrators need to provide support to teachers since they are crucial to ensuring that the curriculum is delivered consistently, effectively, and efficaciously to enhance learners' academic achievement and growth.

In Kenya, the key areas that spearhead the proper functioning of secondary schools rely on teaching staff skills, curriculum mastery and implementation, sound financial management skills, and student welfare (Mutiso & Itegi, 2020). The proper deployment of schools' curricula depends on the efficiency of the school principals. Principals are directly responsible for the formulation of the school curriculum policy. They should, therefore, have a perfect understanding of the curriculum and be in a position to lead the execution process.

The inculcation of academic knowledge, skills, abilities, and proficiency among individuals is enhanced through learning and academic performance (Kapur, 2018). In secondary schools, numerous factors contribute to an essential part of improving students' academic performance. Academic performance determines the future goals and objectives of students (Gbollie & Keamu, 2017). What subject they will specialize in colleges and universities, which educational institutions they will enrolled in, what career opportunities they take up, and so forth? Improvement and efficiency of schools are significant in the heightened competition that subjects the performance of educational standards to public scrutiny through well-known international tests and indexes. Therefore, school principals must be instructional administrators, as the key to good schools' academic performance is their role.

The commitment of the school managers towards ensuring success is also determined through internal school assessment as determined by the number of examinations that students undertake in a certain period. The number of examinations sat for instance in a particular term is an important way of evaluating the learners' performance. Internally determining student assessment is an administrative function of the school principals. The number of internal assessments could help the students improve their academic performance. A significant volume of academic research demonstrates the role of principals in school effectiveness (Kapur, 2018; Mutiso & Itegi, 2020). The academicians have an agreeable opinion that after classroom instruction, principal leadership is the second most potent school-based factor affecting student performance, representing one-quarter of all school students' academic performance.

The school principals' leadership styles must be exclusive to ensure effectiveness and an improved learning environment (Arar & Nasra, 2020). On this basis, principals' administrative skills can lead to the academic performance improvement of the students. The school principals should forgo their self-ambitions and work as stewards for better academic results. He should work closely with his teaching staff, students, and parents to ensure that all stakeholders' interests are met. Historically, effective managers only needed sound administrative and political skills. However, principals must now possess various leadership skills to meet 21st-century demands. This is because, besides instructional and programming pressures, today's principals face budgetary constraints, student behaviour, cost planning, supervision, database management, and public relations. A principal's effectiveness in this new educational era will require intricate knowledge and skills relevant to school culture and management, besides practical academic leadership qualities.

The principal's main role is to promote academic performance which can be executed only with the required administrative strategies hence the need for principals to have sound administrative strategies that ensure a good leadership model (Wakoli & Kitainge, 2019). With their teaching staff, school principals are responsible for school operations' day-to-day functioning, deciding their performance direction. She adds that to achieve the desired academic performance, school principals must use best leadership practices. Since the 1980s, school management practices have been used around the world to improve academic performance.

According to Lai, Luen, Chai, and Ling (2014), school principals must have a mastery of the school's shared values, culture, and educational values to achieve better performance. Further, school management must work hand in hand with the Principals to ensure all the resources are available on time to create a conducive learning environment. In curriculum implementation, one of the study variables, any teacher should be in a position to prepare lesson plans, and schemes of work, mark students' books and prepare the record of work covered. It is the responsibility of the principal to ensure that all teachers prepare the above documents (MoE, 2018).

Teachers are among the main contributors to the education sector in any Country. They determine the course and impact of other learning materials to meet the educational sector's specified objectives (Kilonzo, 2019). In this scope, these human resources variables contribute to teachers' well-being either positively or negatively, depending on how they are applied. Such variables include employee participation, workplace burnout, job requirements, employment resources, and organizational identification, which have a retroactive

impact on the secondary schools' grades as viewed by all stakeholders. Proponents, assert that sound human resources management helps significantly improve school performance. As educational leaders, principals face the challenge of improving teaching and learning to ensure academic success for all students. The role of the principal is rapidly changing from simply encouraging teachers' efforts to leading teachers to produce tangible results (Betonio et al., 2020). An abundance of research supports that principals play a vital role in improving student achievement.

In Kenya's education sector, in harnessing disparity and compel other teachers to work hard, they have initiated many motivation practices. The Kenyan Ministry of Education (MoE), in partnership with the Teachers Service Commission (TSC), unveiled rewards such as the Principal of the Year Award (POYA) and Teacher of the Year Award (TOYA). These rewards aim at recognizing the teachers who have managed in their unique way to outshine their peers by producing exemplary results in their respective schools. Despite the government, through the Ministry of Education, providing the required resources for public secondary schools, many public schools have been recording below-par academic performance compared to private schools (Barasa, Wamocha, & Poipoi, 2017). Experts and educational analysts linked this with the laxity of school management in running the institutions (Kagama & Irungu, 2018). Wakoli and Kitainge (2019) assessed the administrative strategies' impact on the Kenya Certificate of Secondary Education in Mount Elgon Sub County. Their results revealed that the continuous use of administrative strategies by principals raises the performance of their schools and there exists a significant ( $r=0.594$  and  $p=0.004$ ) between the principal's application of various administrative strategies on students' performance in schools. This shows that a unit increase in principal administrative strategies in a school will automatically lead to improved performance in schools.

Likewise, the best assets of any organization are human resources (Njuki, 2018). Njuki (2018) used some variables to analyze human resources in a school set up such as job demands, work resources, employee engagement, job burnout, and employee involvement, which, when considered by all relevant parties, had a positive impact on the average grade of students. In public schools where principal leadership skills are top-notch, the teaching staff and other subordinates will feel appreciated and strive towards making their school outshine others. In New York City, principals' selection is based on teachers with leadership talent (Clark, Martorell, & Rockoff, 2009). A teacher is selected not only based on their long teaching experience but also demonstrated leadership skills. As Barasa et al. (2017) point out, principals must demonstrate high leadership skills to achieve quality education and improve the education system's overall performance. As these findings suggest, failed teacher leadership has potentially negative consequences, making it essential to comprehend how to promote and facilitate school principals' achievement.

In Machakos county for the past three years running from 2015-2017, the mean score performance has been below the national mean score. According to the Ministry of Education, there has been an ongoing debate on how to avert the situation and make sure the schools attain the national mean scores. However, the Kenya National Teachers' Union (KNUT) and the Kenya Post Primary Education Teachers' Union (KUPPET) have lately complained of low morale by their employers. All unions cite inadequate salaries paid to teachers and unsafe working conditions as contributing causes of poor results in different schools compared to their civil service peers. What compels other teachers to work hard is still a mystery in the education field. Perhaps the core motivating factor is like that of the private business world. Therefore, the current study will look at public secondary school principals' administrative practices specifically human resources management in enhancing the academic performance of their respective schools.

## **1.2 Statement of the Problem**

Performing a school is measured by the results it records in Kenya Certificate of Secondary Education (KCSE) examinations and this performance comes because of the efficient role of the principal as an administrator, using varied administrative strategies (Wakoli & Kitainge, 2019). School as an organization requires proper management from the principal so the desired goals can be achieved. School administration means running the school along with the desired educational policies. It considers all aspects of the school such as; human resource management, curriculum implementation, financial management, and student welfare among others, and integrates them into a fruitful whole. Statistics of (KCSE) analysis in the last five years, indicate that secondary schools in Machakos County registered a mean score below that of the other schools of similar categories in other counties. The performance of the KCSE examination in Machakos Sub-County is not sufficiently competitive, given that one aim of effective schools is to produce excellent grades (Mutisya, Kimeu, & Nyamboga, 2022). Reviewed studies have not exhaustively looked at how varied administrative practices and principals affected students' academic performance in schools. This study therefore sought to establish the effect of human resource management practices on students' academic performance in public secondary schools in Machakos sub-County, Machakos County.

### **1.3 Study Objective**

The objective of the study was to establish the effect of human resource management practices on students' academic performance in public secondary schools in Machakos Sub-County, Machakos County, Kenya.

### **1.4 Significance of the Study**

The study is expected to add to the already available few empirical pieces of literature on human resource management practices and public secondary school academic performance in Kenya and the world. The study will benefit these stakeholders. First, the Ministry of Education and the Teachers Service Commission (TSC) in Kenya. Understanding the contributing benefits of human resource management practices through the current study, both parties will agree to spur educational development and thus improve schools' overall academic performance in the country. Second, the study will benefit Machakos County educational officers by providing insights into human resource management practices and formulating policies to improve academic performance in their education system. Third, the study will also inform the Kenyan citizens, especially the Machakos county locals and residents, in appreciating the role of nonlocal principals in the area to improve schools' performance. Also, the study will act as a benchmark for other countries to adopt the same findings in enhancing academic performance in their education sector. The study will add to the body of existing literature on the effect of human resource management practices on academic performance in the education sector and thus carry further studies as suggested to provide enough empirical literature in the scholarly field. Students and other researchers will also benefit from the suggestions for further studies to add to the body of existing literature in the same field of academic performance.

### **1.5 Theoretical Framework**

Human capital is described by Wuttaphan (2017) as the pool of competencies, skills, and sociological and psychological characteristics, including imagination and reasoning capabilities, embedded in the willingness to execute labour to generate economic benefit. It is an aggregate economic perception of the humans acting within societies, seeking to grasp the social, biological, cultural, and psychological complexities as they engage in overt and economic transactions. Many theories explicitly connect investment in human capital development to education, and the role of human capital in economic development, productivity growth, and innovation has frequently been cited as a justification for government subsidies for education and job skills training (Almendarez, 2011; Kuzminov, Sorokin, & Froumin, 2019). This sub-section reviews and extends the literature on the social returns to human capital accumulation, emphasizing the social returns to education. Here and in what follows, "social returns" are the sum of a human capital unit's private and external marginal benefits. The focus is on the study of the problem of human capital externalities does an individual's personal decision to accumulate human capital confer external benefits or costs on others? This theory helped to provide insight in this study on how school principals in secondary education and how much they will invest in it. The stakeholders also understand their contribution towards the success of their respective schools.

## **II. METHODOLOGY**

### **2.1 Area of Study**

The study was carried out in Machakos sub-county in Machakos County. The global positioning of the county is on the latitude 1016'1.23''S and longitude 37019'12.64''E. Machakos County has a total area of 6208.2 km<sup>2</sup> (the Republic of Kenya, 2018).

### **2.2 Research Design**

The research design is a blueprint or a plan of how the research was conducted by describing the research sites, how the subjects are selected, and data collection procedures to anticipate the decisions to be taken to maximize the findings' reliability and credibility. A research design indicates how the research is set up, what happens to the subjects, and what data collection methods are used. The study used a descriptive survey research design. Descriptive survey research design provides an insight into the phenomenon in a natural setting the way it is. Surveys are excellent vehicles for collecting original data to study a phenomenon's predictors in a large population. Therefore, through this design, the researcher assessed how principals' human resource management practices have affected public secondary school academic performance in Machakos County. Some studies that have used descriptive research design in educational leadership include; Gacheri (2017) who studied how classroom management practices affect students' academic qualifications in public secondary schools in Tharaka Nithi County. Osiri et al. (2019) also used a descriptive research survey design to examine how school administration affects students' academic performance in public secondary schools in Nairobi County.

### 2.3 Population and Sampling Design

According to the Machakos sub-County education office, the Machakos sub-County has 48 public secondary schools, hence the study's target population were 48 principals from the 48 public secondary schools and 400 teachers. These groups were selected because they are more experienced with the topic under study. According to Mugenda and Mugenda (2012), a 10-30 % range on a targeted population can yield an optimal sample size for a descriptive survey study. The study was narrowed to 15 principals and 120 teachers in 15 sampled public secondary schools in Machakos Sub-County. Public Secondary Schools in Machakos County form the unit of analysis of the study. While the principals and TSC teachers formed the study's unit of observation. The study adopted the simple random without replacement sampling technique in obtaining the number of respondents because of the homogenous nature of the public secondary schools.

### 2.4 Data Collection and Analysis

The study adopted the questionnaires as the research instrument to gather primary data. A questionnaire is a written set of questions to which the subject responds in writing. Both closed and open-ended questionnaires were administered to the respondents. The researcher administered questionnaires to the principals and the teachers. Each item was followed by a five-point Likert Scale, having adverbs indicating the frequency with which the respondents were engaged in an activity as per objectives. The researcher visited the selected schools and self-administered the questionnaires. Once filled in, the researchers then collected them after a week. Data was then entered into the Statistical Package for Social Sciences (SPSS) version 25 and analysed using Stata Version 17 software. Quantitative data was analysed using descriptive statistics such as frequencies and percentages. In addition, to test the study hypothesis pairwise correlation and regression analysis were conducted and statistical significance was ascertained at the 1%, 5% and 10% levels of significance.

## III. RESULTS AND DISCUSSIONS

### 3.1 Students' Academic Performance

*Table 3.1: Academic performance over the years*

| Variable                  | Observations | Mean | Std. dev. | Min  | Max  |
|---------------------------|--------------|------|-----------|------|------|
| KCSE 2018 mean score      | 120          | 4.21 | 1.730     | 2.07 | 7.59 |
| KCSE 2019 mean score      | 120          | 4.33 | 1.801     | 2.45 | 8.62 |
| KCSE 2020 mean score      | 120          | 4.29 | 1.948     | 1.90 | 8.69 |
| KCSE 2021 mean score      | 120          | 4.39 | 1.727     | 2.30 | 7.98 |
| KCSE 2022 mean score      | 120          | 4.34 | 1.639     | 2.00 | 8.01 |
| KCSE 2018-2022 mean score | 120          | 4.31 | 1.746     | 2.38 | 8.18 |

The academic performance based on the KCSE mean scores for the schools was 4.21 in 2018, 4.33 in 2019, 4.29 in 2020, 4.39 in 2021, and 4.34 in 2022 indicating that schools' mean performance has been oscillating over the last five years (2018 to 2022) in Table 3.1.

### 3.2 Responses of Principals and Teachers on Students' Academic Performance

Table 3.2 and Table 3.3 gives the responses of principals and teachers on the indicators of students' academic performance in public secondary schools in Machakos Sub-County, Machakos County. Students' academic performance was measured using four indicators for the teachers and principals. Each questionnaire item's mean and standard deviation (SD) statistics were tabulated.

*Table 3.2: Responses of Principals on Students' Academic Performance*

| Variable  |          | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | Std. dev. |
|---|----------|-------------------|----------|---------|-------|----------------|------|-----------|
| Most of our students attain university entry mean grade C+ and above                                  | <i>f</i> |                   | 13       | 2       |       |                | 2.13 | 0.352     |
|   | <i>%</i> |                   | 86.67    | 13.33   |       |                |      |           |
| The overall mean score of the school is above 5   | <i>f</i> | 9                 | 6        |         |       |                | 1.40 | 0.507     |
|   | <i>%</i> | 60                | 40       |         |       |                |      |           |
| The school is ranked among the top best-performing schools in the county                              | <i>f</i> | 6                 | 9        |         |       |                | 1.60 | 0.507     |
|   | <i>%</i> | 40                | 60       |         |       |                |      |           |
| Most of our students qualify for prestigious courses' (e.g. law, engineering) university entry grades | <i>f</i> | 9                 | 6        |         |       |                | 1.40 | 0.507     |

%
60
40

The results in Table 3.2 have indicated that according to the responses of the Principals, 86.67 per cent of them disagreed that most of their students attain university entry mean grade C+ and above. 100 per cent of the Principals disagreed that the overall mean score of the school is above 5. In addition, 100 per cent of the Principals disagreed that the school is ranked among the top best-performing schools in the county. Lastly, 100 per cent of the Principals disagreed that most of their students qualify for prestigious courses' (e.g. law, engineering) university entry grades. The results in Table 3.2 have indicated that the rating for the Principals on average ranged from 1.40 to 2.13 indicating that the Principals disagreed regarding students' academic performance being topnotch in public secondary schools in Machakos sub-county, Machakos County. This study sought to establish from the teachers the indicators of students' academic performance, the findings are as stated in Table 3.3.

**Table 3.3: Responses of Teachers on Students' Academic Performance**

| Variable  |          | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | Std. dev. |
|---|----------|-------------------|----------|---------|-------|----------------|------|-----------|
| Most of our students attain university entry mean grade C+ and above                                  | <i>f</i> | 29                | 63       | 3       | 14    | 11             | 2.29 | 1.219     |
|   | %        | 24.17             | 52.50    | 2.50    | 11.67 | 9.17           |      |           |
| The overall mean score of the school is above 5   | <i>f</i> | 34                | 53       | 5       | 9     | 19             | 2.38 | 1.385     |
|   | %        | 28.33             | 44.17    | 4.17    | 7.50  | 15.83          |      |           |
| The school is ranked among the top best-performing schools in the county                              | <i>f</i> | 38                | 51       | 6       | 7     | 18             | 2.30 | 1.370     |
|   | %        | 31.67             | 42.50    | 5.00    | 5.83  | 15.00          |      |           |
| Most of our students qualify for prestigious courses' (e.g. law, engineering) university entry grades | <i>f</i> | 55                | 34       | 12      | 13    | 6              | 2.01 | 1.206     |
|   | %        | 45.83             | 28.33    | 10.00   | 10.83 | 5.00           |      |           |

The results in Table 3.3 have indicated that according to the responses of the teachers, 76.67 per cent of them disagreed that most of their students attain university entry mean grade C+ and above. 72.5 per cent of the teachers disagreed that the overall mean score of the school was above 5. In addition, 74.17 per cent of the teachers disagreed that the school is ranked among the top best-performing schools in the county. Lastly, 74.17 per cent of the teachers disagreed that most of their students qualify for prestigious courses' (e.g. law, engineering) university entry grades. The results in Table 3.3 have indicated that the rating for the teachers on average ranged from 2.01 to 2.38 indicating that the teachers disagreed regarding students' academic performance being topnotch in public secondary schools in Machakos sub-county, Machakos County. This indicates the schools within the Machakos sub-county have not been performing well.

### 3.3 Effect of Human Resource Management Practices on Students' Academic Performance

This study sought to establish the effect of human resource management practices on students' academic performance where Table 3.4 and Table 3.5 present the responses of principals and teachers on the indicators of human resource management practices in public secondary schools in Machakos Sub-County, Machakos County. Human resource management practices were measured using nine indicators for the teachers and nine indicators were used for the principals. Each questionnaire item's mean and standard deviation (SD) statistics were tabulated. Each scale was rated on a five Likert-like scale ranging from 1 denoting "strongly disagree" to 5 denoting "strongly agree". The findings of Table 3.4 and Table 3.5 are as indicated respectively.

**Table 3.4: Responses of Principals on the Effect of Human Resource Management Practices on Students' Academic Performance**

| Variable  |          | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | Std. dev. |
|---|----------|-------------------|----------|---------|-------|----------------|------|-----------|
| The principal recognises teachers who have contributed positively to improving the quality of education | <i>f</i> |                   |          |         | 13    | 2              | 4.13 | 0.352     |
|   | %        |                   |          |         | 86.67 | 13.33          |      |           |
| The school has been holding various activities involving teachers, students, parents and the community  | <i>f</i> |                   |          | 2       | 5     | 8              | 4.40 | 0.737     |
|   | %        |                   |          | 13.33   | 33.33 | 53.33          |      |           |
| There is a high parental and community involvement in decision-making practices at this school          | <i>f</i> |                   | 3        |         | 10    | 2              | 3.73 | 0.961     |
|   | %        |                   | 20       |         | 66.67 | 13.33          |      |           |
| The principal decides based on the  | <i>f</i> |                   |          |         | 13    | 2              | 4.13 | 0.352     |

|  |          |       |       |      |       |
|--|----------|-------|-------|------|-------|
| current situation and the policy of the Government Education   | %        | 86.67 | 13.33 |      |       |
| The principal pays attention to the school's needs and interests of individual teachers upon having in-service courses | <i>f</i> | 7     | 8     | 4.53 | 0.516 |
|  | %        | 46.67 | 53.33 |      |       |
| The principal gives full credence to the teachers in terms of managing curricular and co-curricular activities         | <i>f</i> | 7     | 8     | 4.53 | 0.516 |
|  | %        | 46.67 | 53.33 |      |       |
| The principal has adopted an open-door policy between teachers, students, parents and the community                    | <i>f</i> | 7     | 8     | 4.53 | 0.516 |
|  | %        | 46.67 | 53.33 |      |       |
| The principal delegates duties to achieve the school's goal  | <i>f</i> | 7     | 8     | 4.53 | 0.516 |
|  | %        | 46.67 | 53.33 |      |       |
| The principal is result-oriented, and he/she has high expectations for teacher performance and student achievement     | <i>f</i> | 10    | 5     | 4.33 | 0.488 |
|  | %        | 66.67 | 33.33 |      |       |

Centred on the responses of the Principals as presented in Table 3.4, 100 per cent of the Principals agreed that the principal recognises teachers who have contributed positively to improving the quality of education. 86.67 per cent of the Principals agreed that the school has been holding various activities involving teachers, students, parents and the community. The Principals who agreed there is a high parental and community involvement in decision-making practices at this school were 80.00 per cent. In addition, 100 per cent of the Principals agreed that the principal decides based on the current situation and the policy of the Government Education; the principal pays attention to the school's needs and interests of individual teachers upon having in-service courses; the principal gives full credence to the teachers in terms of managing curricular and co-curricular activities; the principal has adopted an open-door policy between teachers, students, parents and the community; the principal delegates duties to achieve the school goal; and the principal is result-oriented, and he/she has high expectations for teacher performance and student achievement.

The results in Table 3.4 have indicated that the rating for the Principals on average ranged from 3.73 to 4.53 indicating that the Principals agreed regarding human resource management practices in public secondary schools in Machakos sub-county, Machakos County. A mean rating of 4.53 for the statements "the principal pays attention to the school's needs and interests of individual teachers upon having in-service courses", "the principal gives full credence to the teachers in terms of managing curricular and co-curricular activities", "the principal has adopted an open-door policy between teachers, students, parents and the community" and "the principal delegates duties to achieve the school goal" indicates the Principals strongly agreed regarding human resource management practices in public secondary schools in Machakos sub-county, Machakos County.

This study sought to establish from teachers the effect of human resource management practices on students' academic performance and the findings are as stated in Table 3.5.

**Table 1: Responses of Teachers on the Effect of Human Resource Management Practices on Students' Academic Performance**

| Variable   |          | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean | Std. dev. |
|--|----------|-------------------|----------|---------|-------|----------------|------|-----------|
| The principal recognises teachers who have contributed positively to improving the quality of education                | <i>f</i> | 7                 | 18       | 29      | 47    | 19             | 3.44 | 1.106     |
|  | %        | 5.83              | 15.00    | 24.17   | 39.17 | 15.83          |      |           |
| The school has been holding various activities involving teachers, students, parents and the community                 | <i>f</i> | 6                 | 5        | 29      | 55    | 25             | 3.73 | 1.002     |
|  | %        | 5.00              | 4.17     | 24.17   | 45.83 | 20.83          |      |           |
| There is a high parental and community involvement in decision-making practices at this school                         | <i>f</i> | 8                 | 10       | 21      | 62    | 19             | 3.62 | 1.063     |
|  | %        | 6.67              | 8.33     | 17.50   | 51.67 | 15.83          |      |           |
| The principal decides based on the current situation and the policy of the Government Education                        | <i>f</i> | 6                 | 2        | 11      | 85    | 16             | 3.86 | 0.853     |
|  | %        | 5.00              | 1.67     | 9.17    | 70.83 | 13.33          |      |           |
| The principal pays attention to the school's needs and interests of individual teachers upon having in-service courses | <i>f</i> | 7                 | 3        | 36      | 51    | 23             | 3.67 | 1.007     |
|  | %        | 5.83              | 2.50     | 30.00   | 42.50 | 19.17          |      |           |
| The principal gives full credence to   | <i>f</i> | 2                 | 4        | 11      | 72    | 31             | 4.05 | 0.798     |

|  |          |      |      |       |       |       |      |       |
|--|----------|------|------|-------|-------|-------|------|-------|
| the teachers in terms of managing curricular and co-curricular activities  | %        | 1.67 | 3.33 | 9.17  | 60.00 | 25.83 |      |       |
| The principal has adopted an open-door policy between teachers, students, parents and the community                | <i>f</i> | 5    | 7    | 26    | 56    | 26    | 3.76 | 0.996 |
|  | %        | 4.17 | 5.83 | 21.67 | 46.67 | 21.67 |      |       |
| The principal delegates duties to achieve the school's goal  | <i>f</i> | 4    | 8    | 21    | 59    | 28    | 3.83 | 0.976 |
|  | %        | 3.33 | 6.67 | 17.50 | 49.17 | 23.33 |      |       |
| The principal is result-oriented, and he/she has high expectations for teacher performance and student achievement | <i>f</i> | 7    | 5    | 28    | 55    | 25    | 3.72 | 1.030 |
|  | %        | 5.83 | 4.17 | 23.33 | 45.83 | 20.83 |      |       |

The results in Table 3.5 have indicated that according to the responses of the teachers, 55 per cent of the Principals agreed that the principal recognises teachers who have contributed positively to improving the quality of education. 66.66 per cent of the teachers agreed that the school has been holding various activities involving teachers, students, parents and the community. The teachers who agreed there is a high parental and community involvement in decision-making practices at this school were 67.50 per cent. In addition, 84.16 per cent of the teachers agreed that the principal decides based on the current situation and the policy of the Government Education, while 61.67 per cent of the teachers agreed that the principal pays attention to the school's needs and interests of individual teachers upon having in-service courses. The teachers who agreed that the principal gives full credence to the teachers in terms of managing curricular and co-curricular activities were 85.83 per cent. 68.34 per cent of the teachers agreed that the principal has adopted an open-door policy between teachers, students, parents and the community, while 72.5 per cent of the teachers agreed that the principal delegates duties to achieve the school goal. Lastly, 66.67 per cent of the teachers agreed that the principal is result-oriented and he/she has high expectations for teacher performance and student achievement. The results in Table 3.5 have indicated that the rating for the teachers on average ranged from 3.44 to 4.05 indicating that the teachers agreed regarding human resource management practices in public secondary schools in Machakos sub-county, Machakos County save for the statement "the principal recognises teachers who have contributed positively to improving the quality of education" in which the teachers were neutral.

### 3.4 Correlation Test

In this section, the Pearson correlation test was performed as shown in Table 3.6. In the table, HRM denotes human resource management practices.

**Table 3.6: Pearson Correlation Test**

|                         | Mean score<br>2018-2022 | HRM             | Gender          | Age             | Education       | Duration |
|-------------------------|-------------------------|-----------------|-----------------|-----------------|-----------------|----------|
| Mean score<br>2018-2022 | 1                       |                 |                 |                 |                 |          |
| HRM                     | 0.419*<br>0.000         | 1               |                 |                 |                 |          |
| Gender                  | 0.171***<br>0.062       | -0.054<br>0.557 | 1               |                 |                 |          |
| Age                     | -0.053<br>0.566         | 0.311*<br>0.001 | 0.099<br>0.293  | 1               |                 |          |
| Education               | -0.092<br>0.319         | -0.007<br>0.941 | -0.176<br>0.054 | 0.390*<br>0.000 | 1               |          |
| Duration                | 0.281*<br>0.002         | 0.089<br>0.335  | 0.294*<br>0.001 | 0.266*<br>0.003 | 0.375*<br>0.000 | 1        |

\*, \*\* and \*\*\* represents 1%, 5% and 10% levels of significance

Table 3.6 shows that the academic performance as measured by the mean score 2018-2022 is positively and significantly related to human resource management practices ( $r=0.419^*$ ,  $p=0.000$ ) at the one per cent level of significance.

### 3.5 Hypothesis Testing

In this section, the study hypothesis was formulated and tested using a multiple regression model in Table 3.7, based on the mean score for 2018-2022 as the measure of students' academic performance.



**Table 3.7: Multiple Regression Results**

| Students' academic performance      | Coefficient | Std. err. | t     | P-value |
|-------------------------------------|-------------|-----------|-------|---------|
| Human resource management practices | 0.904*      | 0.236     | 3.82  | 0.000   |
| Curriculum implementation practices | -0.506**    | 0.248     | -2.04 | 0.043   |
| Students' welfare practices         | -0.055      | 0.189     | -0.29 | 0.772   |
| Financial management practices      | 0.778*      | 0.218     | 3.56  | 0.001   |
| Gender                              | 0.123       | 0.345     | 0.36  | 0.723   |
| Age                                 | -1.165*     | 0.279     | -4.18 | 0.000   |
| Education                           | -0.047      | 0.292     | -0.16 | 0.874   |
| Duration                            | 0.700*      | 0.185     | 3.78  | 0.000   |
| Constant                            | 1.385       | 0.949     | 1.46  | 0.147   |
| Number of obs                       | =           | 120       |       |         |
| F(8, 111)                           | =           | 10.73*    |       |         |
| Prob > F                            | =           | 0.000     |       |         |
| R-squared                           | =           | 0.4362    |       |         |
| Adj R-squared                       | =           | 0.3955    |       |         |

\*, \*\* and \*\*\* represents 1%, 5% and 10% levels of significance

Hypothesis testing in this study was done using a multiple regression model tested at the 1 per cent, 5 per cent and 10 per cent levels of significance in Table 3.7. The results of hypothesis testing gave a positive coefficient of 0.904 on human resource management practices was realized with a p-value of 0.000 statistically significant at the 0.01 level. Hence we reject the hypothesis that human resource management practices do not affect students' academic performance. This indicates that human resource management practices have a positive and statistically significant effect on students' academic performance in public secondary schools in Machakos Sub-County, Machakos County. This study's findings conform to those from Italy by Agasisti et al. (2020) who established that the indicators about managerial practices have positive coefficients, but low statistical significance.

## IV. CONCLUSIONS AND RECOMMENDATIONS

### 4.1 Conclusion

The findings of the study led to the following conclusions: Public secondary schools in Machakos sub-county, Machakos County have not been performing well based on the KCSE mean scores of 4.21 in 2018, 4.33 in 2019, 4.29 in 2020, 4.39 in 2021, and 4.34 in 2022 thus the overall mean score of the school was below 5. Most of their students did not attain university entry mean grade of C+ and above, and hence most students did not qualify for prestigious courses (e.g. law, engineering) university entry grades. Human resource management practices have a positive and statistically significant effect on students' academic performance in public secondary schools in Machakos Sub-County, Machakos County.

### 4.2 Recommendations

i) In the aspect of human resource management practices, there is a need for the principal to recognize teachers who have contributed positively to improving the academic performance of the school.

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