Human Resource Management Process and Implementation of Electronic Teacher Appraisal and Development Programme in Public Primary Schools

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Abstract

Teachers are seen as change agents in the development of knowledge, skills and attitude, and are required to develop professionally throughout their life in a sustainable manner. The purpose of the study was to assess how human resource management process influenced implementation of e-TPAD programme; The research employed descriptive survey and correlational research design. The target population of 411 comprising of all 400 teachers in Kisasi sub-county, 11 education officers (3 CSOs, 3 County education staff, and 5 headquarter staff) who were closely involved in implementation of e-TPAD programme. A sample size of 211 comprising of 200 teachers selected using stratified random sampling and proportionate approach and 11 education officers identified using census survey. Questionnaire, interview guide and document analysis were the main tools employed to gather data, which were piloted to ensure they were reliable and valid. Collected data was analyzed by use of SPSS where both descriptive and inferential statistical techniques were used. Frequencies, Means and Standard Deviations presented the descriptive statistics while inferential statistical tests were presented using Pearson Product Moment Correlational Coefficient and regression analyses. Pearson Product Moment Correlational Coefficient was applied to test null hypothesis was tested using. The results indicated r=.376; r^2=.142; B=.259; F(1,186)= 30.712; t=5.542, at p=0.000<0.05, implying there was a statistical significant relationship between HRM process and implementation of e-TPAD programme at 95% confidence level and therefore the null hypothesis was rejected.

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Based on the findings it is therefore recommended that, for implementation to be fast tracked and succeed, proper human resource management planning, acquisition and well team management should be considered at the initial stages of the project.

Keywords: Human resource management planning; human resource acquisition; human resource management; implementation of e-TPAD programme.

1. Introduction

Teachers act as facilitators in preparing the learners for different responsibilities and up lifters of new technological advancements. According to [1] teachers are referred as change agents in the development of knowledge, skill, attitude who should develop professionally throughout their life in sustainable way and therefore, their performance need to be evaluated continuously. Human resource management process addresses how the project personnel and other interested parties were appointed and involved in the implementation of different tasks and activities in the project. Project human resource management is important at the initial stages of the project. Project success is associated with good project organizational planning, where identification, documentation and assigning roles and responsibilities to the project human resource as well as identifying clear reporting relationships [2]. Effective project management practices are essential for a project's success. Acquiring qualified project team ensures successful project completion, although the team must be guided by a qualified quality project manager, who plays a crucial part in project management [3]. The project managers are responsible for overall success of project within the limits of cost, quality, schedule, and satisfying the requisite safety requirements. A project manager as suggested by [3] utilizes relevant instruments, skills and techniques to control various project processes. Staff acquisition is important element in project human resource management planning as it is the process where qualified teams were identified. It involves acquiring the human resources required (individuals or groups), allocating them to specific activities of the project. In some cases, the required resources may not be available, and therefore remains the responsibility of project team to certify that the available resources will meet project requirements.

1.1. Purpose of the Study

The purpose of the study was to investigate the influence of human resource management process on implementation of e-TPAD programme in public primary schools in Kitui County, Kenya.

1.2. Research Objective of the Study

The research objective was to assess how human resource management process influenced implementation of e-TPAD programme in public primary schools in Kitui County, Kenya.

1.3. Research Hypothesis Testing

The study has tested the following research hypothesis;

H_0: Human resource management process has no significant relationship with the implementation of electronic teacher performance appraisal and development programme in public primary schools in Kitui County, Kenya.

H_1: Human resource management process has a significant relationship with the implementation of electronic teacher performance appraisal and development programme in public primary schools in Kitui County, Kenya.

1.4. Significance of the Study

The research study findings would be of importance to various people, firms both in private and public organizations. Academicians and students intending to do further investigations on the title would make use of literature reviewed for identification of gaps. The study would assist in developing existing policy frameworks for project procedures, project management and performance mapping for initiated project. The findings would also help the government management teams especially policy makers and various project committee members tasked with the planning, implementation and management of projects to ensure human resource management process is carried out in a manner that all elements of human resource management are factored well prior to commencement of project implementation. The study findings would have practical effects for the Ministry of Education, planners and policy makers, in their endeavor to implement innovative technology projects in the management of public learning institutions, as they are the project initiators after signing a contract with donors and receiving funds, to ensure human resource management process is handled in a manner that the right project personnel have been identified and that their roles and responsibilities are well elaborated to ensure the projects are implemented smoothly. The study findings would also be chosen by donors and managers of non-governmental organizations in enhancing capacity building at all levels in the education structure to ensure easy and successful execution of donor funded projects in Kenya.

1.5. Statement of the Problem

To enhance quality education, reliable, up to date and complete data is required to enable policy makers come up with quality decisions [4]. This has been a challenge in Kenya, due to the delays in the collection of reliable, up-to-date and complete data from the schools, which informs enrolment, teacher establishment with their current workload and performance of students in their examinations. Global partnership in education has been supporting Kenya's education sector through various primary education development programs since 1998. The current one being PRIEDE programs where one of its main focus was to support planning, accountability and decision making especially the country's effort to adapt new technologies to empower the data collection for the decision making and education planning. Electronic Teacher performance appraisal and development (e-TPAD programme) was one of the programmes supported and it aimed to ensure all teachers uploads their appraisals, self-assess and finally gets assessed by their supervisors online. The Ministry of education therefore uses the uploaded appraisal data to analyze and identify teacher's performance gaps and take appropriate actions. Electronic teacher performance appraisal and development is one of the innovative technology programme under PRIEDE program whose main focus is to improve areas in planning, accountability and decision making. It supports the country's effort to adapt new technologies to reinforce the data collection for the education planning and decision making through uploading real time appraisals, where teaching standards achievements

and individual performance gaps are addressed. Teacher performance appraisal started in the year 2013 for all teachers, where all teachers were supplied with appraisal tools to complete, be appraised and returned back to headquarters for capture and analysis. The initiative aimed at developing a performance oriented culture in learning institutions to improve efficiency and effectiveness in teaching [5]. According to TSC code of regulations, 2015, the appraisal system aimed at strengthening supervisors and continuously monitors teachers' performance in curriculum implementation. Implementation of electronic teacher performance appraisal and development programme in public Primary Schools has been delayed (PRIEDE implementation report for June 2018). The report stated that e-TPAD programme had been delayed with 92% of the teachers being appraised manually, which implies that only 8% of the teacher's appraisals were uploaded online. This low percentage prompted an investigation on the project initiation processes especially to assess how human resource management process specifically human resource management planning, acquisition of the project team and management of the project team influenced implementation of e-TPAD programme in public primary schools.

1.6. Limitations of the Study

The area where the research was undertaken had a number of limitations. Kisasi Sub-county has a geographical challenge and public primary schools are scattered across the sub-county where the distances between schools was a challenge. This was addressed by facilitating the research assistants to use motorbikes to access the schools with ease. Some respondents feared giving the right information thinking that the researcher was on a fault finding mission. The researcher addressed this by informing them that the research was merely for academic purposes and that the data confidentiality would be considered. Some respondents were unfamiliar with research processes and it was their first time to respond to research questions. This was addressed by hiring research assistants to work closely with them and assist where necessary. The nature and kind of information the study was seeking on e-readiness which was sensitive for some respondents feared to disclose due to the security of the facilities in their schools. This was addressed by explaining to respondents that the research was for academic purpose only and that the information will be handled with confidence.

2. Literature Review

2.1. Human Resource Management and implementation of e-TPAD in Public Primary Schools

Human Resource Management is the process which involves appointing and developing employees among other processes to become more helpful in the organization. In regard to project, it is the process of performing job analyses, development of personnel needs, employing the qualified people for the job, adapting and training, administration of wages, provision of reimbursements and incentives, assessing performance, resolving differences, and collaborating with all cadres of employees [6]. Despite the importance of human resource to business, little research focusing on project team administration in capital projects has been done, therefore making project managers indecisive on the key human forces of capital project success [7]. In their study on project success and project team management from capital projects in the Australian process industries, they investigated practical research of 56 newly completed capital teams processes. They revealed that structure, virtual office usage and project team efficacy, are the greatest predictors of project efficiency. They further

noted that continuity of project leadership and incentives given to project manager are very key to project implementation. However, this was supported by [3] who mentioned that thorough and clear project formulation processes influence the project implementation. Though the study was practical in nature, the investments were in construction not in IT related like e-TPAD programme, and the same could be applied to the programme. Effective project management recommends nine knowledge areas of project success which includes; administration of project communication, cost, time, risks, scope, HR, quality, procurement and incorporation of all the areas stated throughout the project's life cycle [8]. This was not the case for all projects, as competent and determined individuals were required to control all these elements in order for the project to complete on time, within budget, and scope. The existing source affirms cost, quality, scope and time as limitations for project's realization, while risk, communication management, human resource and procurement are declared as backing functions. A study done by [9] on the impact of human resource performance management on project outcome in Pakistan showed that product of project is linked with the quality of performance monitoring by the project manager. This argument is also supported by [10] in their study on human resource role in project success in project oriented organizations, they argued that employee recruitment and selection and employees' performance and appraisal are key factors in project success. However, it should be noted that human resource management process cuts across in almost all projects as it is an important resource worth of investment in projects implementation such as e-TPAD programme. HRM has become the primary and fundamental approach of management. Explicit values, precise standards and execution of particular practices have become the crucial fields of HRM. Studies indicate that the human resource management practices effectiveness influences the firm's achievement. A number of researchers established that investing on human resource management process helps in achieving better results of firms' goals [10]. This was supported by [11], in their study on Impact of HRM on project conclusion in Pakistan, where they 70 heterogeneous projects in IT from different software houses, using stratified sampling technique. Their results indicated that the achievement of a firm is associated with the dedication of its employees. They further argued that HRM is seen as an useful resource in ensuring presence of an agreed structure within the framework of organization for suitable factors like selection and recruitment, development and capacity building, performance evaluation, career growth system, compensation system and employee involvement. This call for firms to not only concentrate on recruitment, development, career growth of their employees, but invest heavily on performance evaluation in order to improve their efficiency and effectiveness in production. A Project Manager strategies and administers the project with a business-mined approach, ensuring that the project target and objectives are fulfilled [3]. In his study on project manager role in improving the project implementation and performance in India, he asserted that project manager performs on behalf of the Project Sponsor. The project manager is the one accountable for planning and scheduling project activities and administration of project execution on daily basis. The study further added that project manager is the person with highest accountability for the firm's success and he gets authority from the sponsor and performs a central role in all stages of the project's life cycle. A project manager is tasked to recruit effective participants in the project, design a framework for the project's tasks, retain the project vision clear, coordinate project tasks, discuss with project steering committee and with the sponsor on project matters, arbitrate project conflicts, detect needed resources, set targets, manage the financial plan; ensure that every person contributes and benefits; track the progress of work and guarantee that project goals are provided on time and on budget.

IT settings today need the project manager to acquire extra abilities in addition to technical skills, like leadership and communication [8]. In their study on IT project managers' competencies and IT project implementation in Brazil, argued that team administration, knowledge of business domain, communication skills and project administration are the most relevant competencies of IT managers which influences project implementation and therefore performance. This was backed by [12], where they maintained that IT environment is demanding, challenging and vibrant and their managers are obligatory to transact with users, expertise, and miscommunication and work stress often. Therefore, they need to acquire an expanded range of abilities in order to perform.

2.2. Theoretical Framework

The study adopted Stakeholders' theory projected by Freeman in 1984, as it expounds on how stakeholders are identified, understood and managed by the project managers to guarantee there is smooth running and sustainability of project. The theory stipulates that a stakeholder could be an individual or a collection of people who could affect or be affected by the achievements of project deliverables in an organization. Further, the theory is grounded on the notion that projects could only be considered successful when they deliver value to the majority of their stakeholders. Patton (2008) explained that the stakeholder model requires that all individuals or groups with genuine interests taking part in an enterprise aims to obtain benefits.

In relation to the study, stakeholder theory is applicable as the e-TPAD programme has various stakeholders whose roles and responsibilities are distinct and they are all benefit differently on the achievements of the project. The stakeholders in this study will include; donors, who are the facilitators of the project in terms of funding; MoE, TSC, county staff, and CSOs who benefit in the data analysis to come up with the informed decisions in the performance of teachers in the delivery of quality education to learners. The e-TPAD programme reports enable the government stakeholders to identify teachers' weaknesses and come up with the development plans to address them so that quality education in the country is maintained. Teachers are the main primary stakeholders, who use e-TPAD programme to set their targets, assess themselves against the set targets and also get assessed by their appraisers to gauge their performance in the delivery of quality education. They benefit in understanding their career weaknesses and areas where they require more career development. Learners and parents as well are key beneficiaries of e-TPAD programme, who benefit directly by acquiring quality education.

2.3. Conceptual Framework

A conceptual framework is a series of interrelated theoretical study concepts that demonstrate the underlying bounding bounds and assumptions of the independent variable(s) leading to one dependent variable, either explicitly or implicitly. It is also a sophisticated formulation of information and mental experiences that connects the theoretical framework theory on which the study is based; conceptual framework fundamentally comprises the operationalization of the theory into the study's dependent variable).
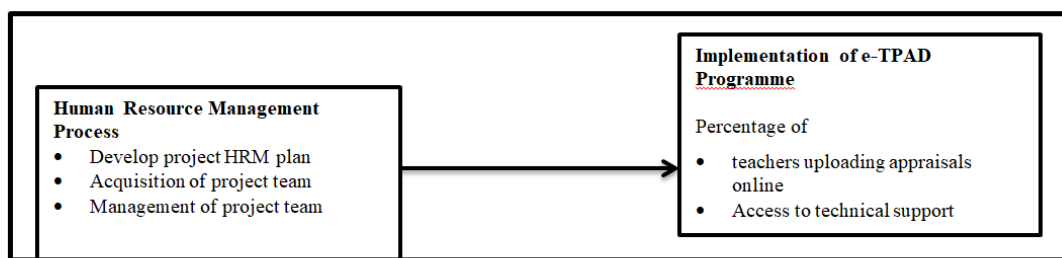
Figure 1: Conceptual Framework Diagram**.**

3. Research Methodology

3.1. Research Paradigm

A Paradigm explains how methodology is used. A research can be viewed in the form of three major perspectives; epistemology, ontology and axiology. There are three main paradigms documented in research which include positivism, constructivism and pragmatism. Pragmatism was used guiding the research, as noted by [13] the suitability for a mixed-method research approach, because of its ontological, epistemological, methodological and axiological appropriateness as compared to other paradigms. Pragmatism was also preferred because it accepts that there are different realities in the research world in single and several realities, which are exposes pragmatic inquiry and it's positioning towards solving concrete challenges in the actual world [14]. The study preferred pragmatism as it used a mixed-method research approach, due to its ontological, epistemological, methodological and axiological appropriateness as compared to other paradigms. Pragmatism was also preferred because it accepts that there are different realities in the research world in single and several realities, which exposes pragmatic inquiry and it's positioning towards solving concrete challenges in the actual world [14]. Hence, quantitative aspect was significant to establish the statistical association for project initiation processes, e-readiness and implementation of e-TPAD programme. Further, the qualitative factor was useful in attaining several ideas of the respondents' relation to initiation methods, e-readiness and implementation of e-TPAD programme. Such ideas were important when explaining the statistical correlation, which employed quantitative approach.

3.2. Research Design

This research adopted correlational research and cross-sectional design to examine the influence of project initiation processes, e-readiness for implementation of e-TPAD programme in public primary schools in Kitui County. Descriptive research design sought to describe the existing phenomena associated with the subject population, whereas correlation survey described the relationship of the variables. The study used a mixed-method approach, whereby inferential, descriptive and qualitative analyses were carried out. Correlations and hierarchical regression modeling was used to identify prediction relationships of variables. The research study approach used was a mixed research approach. Qualitative and quantitative data inquiry was done in a cross-sectional manner simultaneously. Descriptive statistics procedure helped the researcher in organizing,

interpreting, summarizing, and presenting quantitative information obtained from the observation.

3.3. Respondents

The research target population was 411 participants; comprising of public primary school teachers in Kisasi sub-county and education officers comprising of Curriculum Support officers; County Education staff and Ministry of Education headquarter staff guided by Yamane's formula (2008). A sample size of 211 respondents was used, whereby 200 teachers were selected out of a population of 400 teachers using stratified random sampling and proportionate approach, while a census approach was used for 11 education officers. A pilot was undertaken to test the validity and reliability of the research tools before embarking on the main data collection.

3.4. Data Collection

Data collection was done using self-administered questionnaires, interview guide and document analysis.

3.5. Data Analysis

Statistical Package for Social Sciences (version 25) aided data analysis. Both descriptive and inferential data analysis techniques were used whereby descriptive analysis computed the frequencies, means, standard deviation and percentages, while inferential data analysis established the nature and degree of variables association. Pearson's Product Moment correlation coefficient and stepwise regression analysis were employed to determine the type and strength between variables. Out of the 200 surveys, 188 were analyzed in the end. SPSS was used for Likert-type data, the tests of multicollinearity and singularity, homoscedasticity and heteroscedasticity.

The research used regression analysis technique to establish the input of each predictor to the dependent variable [18]. Regression analysis of combined predictors in project initiation processes was done with the dependent variable to establish the combined contribution. The moderating effect of e-readiness on the relationship between project initiation processes and implementation of e-TPAD programme used stepwise regression, where three regression models were built to assess the moderating effect.

3.6. Formulation of Null and Alternative Hypothesis

Inferential statistics was used in this study to test the null hypothesis which stated that:

H_0: Human resource management process has no significant relationship with the implementation of electronic teacher performance appraisal and development programme in public primary schools in Kitui County, Kenya.

H_1: Human resource management process has a significant relationship with the implementation of electronic teacher performance appraisal and development programme in public primary schools in Kitui County, Kenya.

Therefore, human resource management process is a function of implementation of e-TPAD programme in public primary schools. Thus,

$Y = a+\beta_i \, X_i +e$

3.7. Ethical considerations

A letter of introduction and recommendation to carry out the research signed by the University of Nairobi and addressed to the National Commission of Science, Technology (and Innovation (NACOSTI) was issued. The researcher then delivered the letter to the Director at NACOSTI where a letter authoring the researcher to carry out the study was issued. An introduction letter addressed to the participants was written. The participants were assured that purpose of the research was purely academic and that their opinions and views would be kept confidential. In this regard, self-styled names were used to strengthen the confidentiality. This was to make respondents free to participate in the study. They were assured that study findings would only be availed on request. Additionally, the guidelines for data collection were prepared and researcher trained research assistants. Pretesting of the data collection instruments was done and researcher corrected the instruments accordingly to ensure the final data collection instruments were clear to respondents.

4. Results and Discussions

4.1. Introduction

The findings of study consisted of data analysis, interpretation, presentation and discussion. Statistical assumptions tests and analysis of Likert-scale data were also included in the findings. The research objective was to assess how human resource management process influenced implementation of e-TPAD programme in public primary schools in Kitui County, Kenya. Response rate, respondents' background information, assumptions made in the study that would lead analysis and explanation of the presented result. Descriptive analysis of the variables data was obtainable first, inferential analysis follows with interpretations of the tendencies noted. Finally, hypotheses testing and discussions were made in relation to the study. The sections were prepared corresponding to research objectives to enable the reader follow the chapter with ease.

4.2. Respondent's Return Rate

This study had a sample size of 211; where by 200 questionnaires were distributed to teachers in public primary schools in Kisasi Sub-county and 11 education staff members were interviewed. The main instrument for gathering data was the questionnaire. The researcher had a meeting with teachers to physically introduce herself, explained the main drive of the research and guaranteed them that the data collected would be treated confidential.   All the 11 education staff were interviewed and a total of 188 from the 200 distributed questionnaires were returned indicating a return rate of 94% which was satisfactory for this research. Document analysis guide was employed to gather secondary data, where documents related to the implementation of e-TPAD programme, such as documents related to selection and identification of the project teams, financial analysis, specifications of the hardware and software, plans on system implementation, training, budget plans on recurring expenses were targeted.

4.3. Respondents' background Information

Teachers were the main respondents and the details in the research instruments used in the study informed the background of teachers. The section describes the demographic information of the respondents according to gender, age, level of education, teaching experience, and teacher designation. Demographic information was important to the researcher to understand the characteristics of the respondents to enable appreciation of the roles played by confounding factors related to demographic information other than main factors under investigation. The information helped to check if the respondents were normally distributed or not. A teacher's performance hangs on gender, adequate qualification, experience and preparation whose knowledge and experience could be attained by obtaining extra knowledge that will motivate communication, efficiency teaching and performance of learners.

4.3.1. Gender Distribution of Respondents

The research was focused on checking gender distribution in the teaching profession in public primary schools. The constitution of Kenya 2010 stipulated a third gender rule, whereby in a working environment, either of the gender should reflect at least a third of the total percentage. Analysis of respondent's gender was done and the findings were presented in Table 1.

Table 1: Teachers' Gender Distribution.

Gender	Frequency	Percentage (%)
Male	84	44.7
Female	104	55.3
Total	**188**	**100.0**

The findings indicated 104(55.3%) of the respondents were females while 84(44.7%) were males. This was an indication that the teaching profession in primary schools was dominated by female teachers. Teaching is a profession is highly feminized worldwide. This could be because; socially female teachers consider teaching as an extension of their domestic role.

4.3.2. Age of Respondents

Age distributions in a research inform the maturity of the respondents taking part in the study. The respondent's age was examined by frequencies and percentage. The results were therefore presented in Table 2.

Table 2: Teachers' Age Distribution**.**

Age of Respondent(Years)	Frequency	Percentage (%)
Below 30	12	6.4
30-40	83	44.1
41-50	27	14.4
Above 50	66	35.1
Total	**188**	**100.0**

Age distribution findings indicated that 12(6.4%) of teachers were below 30 years, 83(44.1%) fell between the age of 30-40 years, 27(14.1%) were within the bracket of 41-50 years and 66(35.1%) were of the age above 50 years. The findings showed teaching profession is dominated by mature qualified professionals, where a high percentage of teachers fell in the digital age and are ICT literate, therefore they able to interact with online services without issues which was an important factor in the implementation of e-TPAD programme. Hence, they could give adequate responses concerning electronic TPAD implementation. Likewise, the age above 50 years was also useful in that they have adequate experience in the implementation of government programs and policies in the education sector.

4.3.3. Level of Education of Respondents

The minimum qualification of a primary school teacher is a PI certificate and teachers are not limited to upgrade their academic levels. Education level was critical in this research to determine whether the implementation of e-TPAD was being handled by qualified teachers or not. The data was analyzed and results are presented in Table 3.

Table 3: Teachers' Level of Education**.**

Level of Education	Frequency	Percentage (%)
PhD	1	5
Masters	5	2.7
Bachelors	26	13.8
Diploma	65	34.6
Certificate	91	48.4
Total	**188**	**100.0**

The findings of the research indicated that respondents were of different level of education, where 91(48.4%) acquired primary certificate, 65(34.6%) have diploma certificate, 26(13.8%) have bachelors, 5(2.7%) have masters, and only 1(0.5%) have PhD. These findings imply that implementation of e-TPAD programme was done by teachers of different academic levels, where majority of them acquired either a certificate or diploma certificates and therefore, had knowledge in implementing the programme.

4.3.4. Teaching Experience of Respondents

Teaching experience of teachers was considered vital as it could easily help the teacher state their views and experiences on implementation of e-TPAD programme. The findings in Table 4 indicated that teachers had different teaching experience.

Table 4: Teachers' Teaching Experience.

Teaching Experience(Years)	Frequency	Percentage(%)
Less than 5 years	16	8.5
5-10 years	61	32.4
11-15 years	25	13.3
16-20 years	7	3.7
Above 20 years	79	42.0
Total	**188**	**100.0**

Those teachers who had taught for less than 5 years represented 8.5%, an indication that they could have little knowledge in the implementation of education sector programs and policies. Further, the results showed 61(32.4%) had teaching experience falling between 5 – 10 years, 25(13.3%) had taught for years ranging between 11-15 years, only 7(3.7%) had experience ranging between 16-20 years and finally the highest number of teachers had taught for more than 20 years. From the results, it was clear that age of the teachers is related to the teaching experience in that those teachers below 30 years corresponds to the teaching experience of less than 5 years. While those teachers whose age ranges between 30-40 years could be having teaching experience falling in the bracket of either 5-10 years or 11-15 years and they are the majority. Teachers who were above 50 years of age were the ones with the highest number of teaching experience.

4.3.5. Designation of Respondents

Designation of teachers was important as it informs the administrative role a teacher plays in the teaching profession which was an important factor in the implementation of e-TPAD. Teacher appraisal system is structured in a way that teachers were appraised by the administrators in the school. The designation of teachers was adapted to form an appraisal structure within a school, in order to understand who appraises who in implementing e-TPAD programme. The appraisal structure is structured in a way that a head teacher is appraised by CSOs, head teacher appraises deputy head teacher, who in turn appraise senior teacher and finally the senior teacher appraises all other teachers not holding any administrative posts. Respondents' designation was analyzed and findings presented in Table 5.

Table 5: Teachers' Designation**.**

Designation	Frequency	Percentage (%)
Head Teacher	19	10.1
Deputy Head Teacher	16	8.5
Senior Teacher	22	11.7
Teacher	131	69.7
Total	**188**	**100.0**

The findings in Table 5 indicated that 19(10.1%) were head teachers, 16(8.5%) were deputy head teachers, 22(11.7%) were senior teachers and 131(67.7%) were teachers by designation. This implied that all designations categories in the primary school structure took part in the research and were well represented. As per appraisal structure in the public primary schools, all categories were represented both appraise and appraisers taking part in the implementation of e-TPAD programme.

5. Human Resource Management Process and Implementation of e-TPAD Programme in Public Primary Schools

5.1. Descriptive and Inferential Statistical Analysis

Descriptive and Inferential Statistical Analyses results on human resource management process and implementation of e-TPAD programme were done based on a likert-scale type questions ranging from 1-5 Likert item. Teachers were requested to give their opinion and the outcomes were illustrated in Table 5.1 with a 5-point Likert scale where; SD- Strongly Disagree, D-Disagree, NS- Not Sure, A- Agree and SA- Strongly Agree. The scales were generated by the researcher to aid in the calculation of a composite score from Likert type items data. The composite score were therefore analyzed as an interval measurement scale whereby numerous data analysis measures for interval scale items were applied as follows; strongly Agree (SA) $4.2<SA<5.0$; Agree (A) $3.4<A<4.2$; Neutral (N) $2.6<N<3.4$; Disagree (D) $1.8<D<2.6$; Strongly Disagree (SD) $1.0<SD<1.8$ (Carifio and Racco, 2007).

This research pursued to find out the influence of human resource management process on implementation of the e-TPAD programme in public primary schools in Kenya. In this respect, based on reviewed literature of automated systems, the research sought to establish whether development of human resource management plan, acquisition of project team, and management of project team as the main indicators were done.

5.1.1. Likert-Type Data Descriptive analysis

Descriptive analysis of Likert-Type data on human resource management process and implementation of e-TPAD programme in public primary school. The results of the analysis were represented in Table 6:

Table 6: Descriptive Analysis.

No.	Statement	SD F (%)	D F (%)	NS F (%)	A F (%)	SA F (%)	μ	σ
	Development of HRM Plan							
1a	There was an established appraisal structure in our school	52 (27.7)	34 (18.1)	11 (5.9)	74 (39.4)	17 (9.0)	2.84	.8115
1b	There was an existence of an identified training needs	38 (20.2)	54 (28.7)	30 (16.0)	37 (19.7)	29 (15.4)	2.81	.8524
1c	There was an existence of clear appraisal reward and recognition procedures	62 (33.0)	45 (23.9)	51 (27.1)	19 (10.1)	11 (5.9)	2.32	.8431
1d	**Acquisition of project team** Existence of an established e-TPAD programme committees within the sub-county	55 (29.3)	20 (10.6)	69 (36.7)	35 (18.6)	9 (4.8)	2.59	.8791
1e	Existence of a documented clear roles and responsibility for both appraisee and appraiser	40 (21.3)	30 (16.0)	28 (14.9)	75 (39.9)	15 (8.0)	2.97	.8234
1f	Availability of appraisal staffing management plan	64 (34.0)	50 (26.6)	23 (12.2)	45 (23.9)	6 3.2	2.36	.8256
1g	**Management of Project Team** Assessment structure of e-TPAD system team available	55 (29.3)	61 (32.4)	37 (29.7)	25 (13.3)	10 (5.3)	2.33	.894
1h	Have regular meetings with my appraiser to discuss appraisal feedback reports	60 (31.9)	33 (17.6)	22 (11.7)	59 (31.4)	14 (7.4)	2.65	.801
1i	Performance appraisal feedback was effectively used to review teacher's performance objectives in our school.	64 (34.0)	46 (24.5)	8 (4.3)	33 (17.6)	37 (19.7)	2.64	.885
n=188 Composite mean =2.583 Composite standard deviation=0.8811 Cronbach's Alpha (a) Reliability coefficient =0.733								

Table 6 showed a composite mean for human resource management process was 2.583 and standard deviation of .8811. Item 1a sought respondents' opinion on whether there was an established appraisal structure in their schools. The results indicated that 39.4% agreed, while 5.9% were neutral. The item mean was 2.84 and standard deviation was .8115. the item mean was greater than the composite mean implying that existence of an established appraisal structure in the schools had an influence on the implementation of e-TPAD programme in public primary schools. Further, item 1b sought to establish whether there was an existence of identified training needs. The results reviewed that 48.9% of the respondents disagreed while 16.0% were neutral and the mean was 2.81and standard deviation was .8524. the item mean was greater than the composite mean an indication that the existence of identified training needs had an influence on implementation of e-TPAD programme in public primary schools. Consequently, item 1c aimed to establish whether there was an existence of clear appraisal reward and recognition procedures. The results reviewed that 33.0% of respondents disagreed while 27.1% were neutral. The item mean was 2.32 and standard deviation was .8431, which was less than the composite mean implying that existence of clear appraisal reward and recognition procedures had no influence

on implementation of e-TPAD programme in public primary. These results concurred with the views of the interviewees who indicated that teachers were not requested their training needs directly, since the information was given by their respective head teachers who forwarded the information to curriculum staff officers. They further indicated that clear appraisal structure existed within the schools, as teachers were aware who to appraise them at any given time. The same views were given by one of the education officer that;

"Teachers' training needs was given by head teachers whom we requested to provide, therefore teachers might not be aware it was provided."

These results revealed there was inadequate development of human resource management plan, where teachers were not involved directly and could have a negative effect on implementation of e-TPAD programme in public primary schools. Item 1e sought the opinion of respondents on the existence of an established e-TPAD programme committee in the sub county. The results indicated 29.3% strongly disagreed while 36.7% were neutral. The item mean was 2.59 and standard deviation of .8791, which was slightly higher than the composite mean. This implied that existence of e-TPAD programme committee in the sub county had a slight influence on implementation of e-TPAD programme in public primary schools. Further, item 1f established the existence of a documented clear roles and responsibilities for both appraise and the appraiser. The results indicated 39.7% of respondents agreed while 14.9% were neutral. The item mean was 2.97 and standard deviation of .8234, which was greater than the composite mean. This implied that the existence of documented clear roles and responsibilities for both appraise and appraiser had an influence on implementation of e-TPAD programme in public primary schools. Likewise, item 1g sought to establish availability of appraisal staff management plan. The results reviewed 60.6% of respondents had disagreed while 12.2% were neutral. The item mean was 2.36 and standard deviation of .8256 which was lower than the composite mean. This implied that availability of appraisal staff management plan had an influence on implementation of e-TPAD programme in public primary schools. However, the results contradicted views of interviewees, who indicated that there existed an established e-TPAD programme committee at the sub-county level comprising of sub-county director TSC and MOE and all CSOs with well stated roles for each category. The contradiction could be caused by the fact that teachers were not informed on the committee formation as evidenced earlier that top-down sensitization was not clearly done. An education officer 3 mentioned that:-

"I was given a letter from the county director appointing me as a member of e-TPAD programme committee with a responsibility of implementing e-TPAD in my zone. I was responsible for training teachers within my zone among other duties".

This indicated that although the committees were well established, with their roles well given, very little was done to ensure teachers were informed about it and also inform them that they were part of the team as they were key in the implementation of the e-TPAD programme, which has a negative impact on implementation of e-TPAD programme in public primary schools.

Item 1h sought the availability of assessment structure of e-TPAD system team. The results indicated that 61.7% of respondents disagreed assessment structure of e-TPAD system team was available while 29.7% were neutral.

The item mean was 2.33 and standard deviation of .894 an indication that availability of an assessment structure of e-TPAD system team had no influence on implementation of e-TPAD programme in public primary schools. Likewise, item 1i aimed to establish whether respondents had regular meetings with my appraiser to discuss appraisal feedback reports. The results showed that 49.5% of respondents disagreed while 11.7% were neutral. The item mean was 2.65 and standard deviation of .801, and it was slightly higher than the composite mean. This signals that having regular meetings with my appraiser to discuss appraisal feedback reports had influenced the implementation of e-TPAD programme in public primary schools. Further, item 1j sought to establish whether appraisal feedback was effectively used to review teacher's performance objectives in their school. The results reviewed that 58.5% of respondents disagreed while 4.3% were neutral. The item mean was slightly higher than the composite mean an indication that appraisal feedback was effectively used to review teachers' performance objectives in their schools had a slight influence on implementation of e-TPAD programme in public primary schools. However, education officers views revealed that there existed a system assessment structure where each CSO was answerable to sub-county director, who was also answerable to the county director, not only on matters about e-TPAD system but also for all other duties assigned to us. An education officer 6 indicated that;-

"There exists a structure on who should appraise who within the school. Teachers knew who to discuss their targets with and who should appraise them. The structure is very clear within the school".

This contradicted the opinions of teachers which was neutral from the composite mean figure, that they neither agreed nor disagreed that there was management of project team, which showed some teachers knew about the structure.

5.1.2. Hypothesis Testing

The association between human resource management process and implementation of e-TPAD programme in public primary schools was assessed by employing Pearson's Product Moment technique and the null hypothesis was tested:

H_0: Human resource management process has no significant relationship on implementation of e-TPAD in public primary schools in Kitui County, Kenya.

A composite mean of human resource management process was used as the independent variable and a composite mean of implementation of e-TPAD programme in public primary schools used as dependent variable to enable testing of null hypothesis. The findings were illustrated in Table 7.

Table 7: Human Resource Management Process and Implementation of e-TPAD programme Correlation Matrix.

		Implementation of e-TPAD programme in public primary schools
Human Resource Management Process	Pearson Correlation	.376**
	Sig. (2-tailed)	.000
	N	188

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

The findings in Table 7established that r=.376; p=0.000<0.05 implying there was a weak statistical significant relationship between human resource management process and implementation of e-TPAD programme in public primary schools. This provided enough evidence to reject the null hypothesis that human resource management process has no significant relationship with implementation of e-TPAD programme and therefore concluded that human resource management process had a significant relationship on implementation of e-TPAD programme in public primary schools in Kitui County, Kenya.

Following the correlation results, the researcher employed simple linear regression analysis to assess whether human resource management process statistically influenced implementation of e-TPAD programme in public primary schools. Table 8 illustrates the regression analysis findings.

Table 8: Regression analysis of Human Resource Management Process and Implementation of e-TPAD programme**.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
	.376[a]	.142	.137	.564	.142	30.712	1	186	.000

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.764	1	9.764	30.712	.000[a]
	Residual	59.133	186	.318		
	Total	68.897	187			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Erro
1	(Constant)	1.984	.128		15.531	.0000
	human resource management process (X_1)	.259	.047	.376	5.542	.0002

a. Predictors: (Constant), human resource management process
b. Dependent Variable: implementation of e-TPAD programme in public primary schools

The regression analysis findings in Table 8 indicated R squared (.142) which implied that only 14.2% of variation in implementation of e-TPAD programme in public primary schools was explained by human resource management process, which means 85.6% of difference was described by other factors not in the model. The model coefficients show a beta value of 0.259, denoting that a unit increase in communication management process causes 25.9 percent increase in implementation of e-TPAD programme in public primary schools. The results of ANOVA indicate model is statistically significant, $F_{(1, 186)} =30.712$, with a p-value 0.000<0.05.

The researcher further achieved the model $Y = a + \beta_3 X_3 + e$;

Where a = 1.984, $\beta_3 = 0.259 X_3$, e=0.047

Therefore,

$Y = 1.984 + 0.259 X_3$

The model coefficients showed a beta value of 0.259, inferring that a unit increase in human resource management process caused 25.9% increase in the implementation of e-TPAD programme. Overall model was statistically significant at p=0.000<0.05; implying implementation of e-TPAD programme in public primary schools could dependably be predicted by the level of human resource management process undertaken during initiation stage.

From the survey results, communication management process features in project initiation processes to a neutral extent ($\mu = 2.58$; $\sigma = .8811$) and weakly correlates with the implementation of e-TPAD programme ($r = 0.376$ at $p = 0.05$). Although studies relating to the human resource management process on implementation of e-TPAD programme seem to be limited, there were some studies based on influence of human resource management practices on project success. Bearing in mind that implementation of e-TPAD programme is part of projects, references were made on these studies. A study by [10], found that employees' performance and appraisal, recruitment and selection are most human resource management practices that have influence in project implementation. This was supported by a study done by [11], who also found that employee's recruitment and selection, employee's compensation system, and employee's performance and appraisal influence the project success.

6. Conclusion

The research found that there was a weak statistical significant relationship between human resource management process and implementation of e-TPAD programme in public primary schools. It was therefore concluded that human resource management process should be enhanced fully, especially in involving teachers in identifying their training needs and installing clear rewards and recognition procedures, so that the e-TPAD programme could be implemented fully with majority of teachers uploading their appraisals themselves without seeking for assistance. Teachers should be made aware of each and every planning in any project being undertaken and proper sensitization should be carried out prior to implementation. From the literature, it is evident that stakeholder involvement in any project is essential to enhance project implementation and success.

Acknowledgement

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7. Appendices

Appendix 1: Linearity test

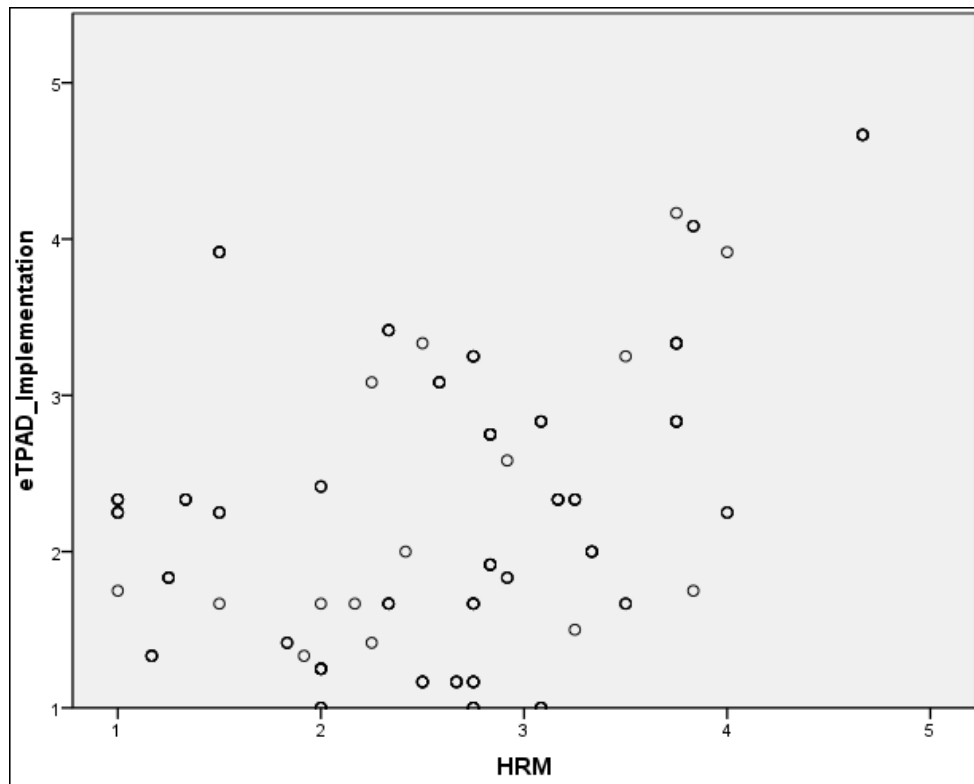

Figure 2

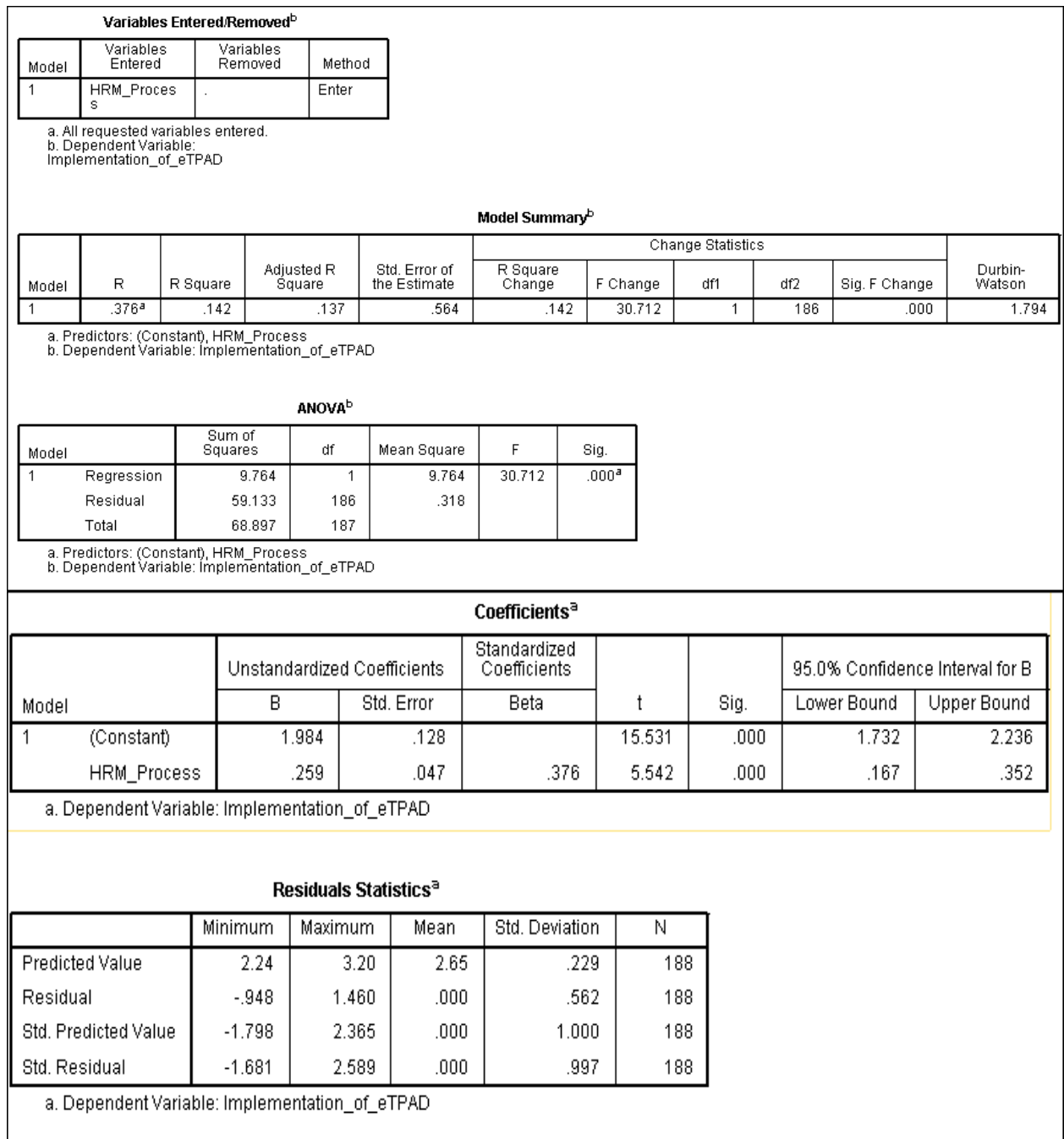Appendix 2: Regression Analysis of Human Resource Management Process and Implementation of e-TPAD programme

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	HRM_Process	.	Enter

a. All requested variables entered.
b. Dependent Variable: Implementation_of_eTPAD

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.376[a]	.142	.137	.564	.142	30.712	1	186	.000	1.794

a. Predictors: (Constant), HRM_Process
b. Dependent Variable: Implementation_of_eTPAD

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.764	1	9.764	30.712	.000[a]
	Residual	59.133	186	.318		
	Total	68.897	187			

a. Predictors: (Constant), HRM_Process
b. Dependent Variable: Implementation_of_eTPAD

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.984	.128		15.531	.000	1.732	2.236
	HRM_Process	.259	.047	.376	5.542	.000	.167	.352

a. Dependent Variable: Implementation_of_eTPAD

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.24	3.20	2.65	.229	188
Residual	-.948	1.460	.000	.562	188
Std. Predicted Value	-1.798	2.365	.000	1.000	188
Std. Residual	-1.681	2.589	.000	.997	188

a. Dependent Variable: Implementation_of_eTPAD

Figure 3