



INFLUENCE OF MANAGERIAL COMPETENCIES ON PERFORMANCE MEASUREMENT IN PUBLIC SECONDARY SCHOOLS IN KENYA

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ABSTRACT

In Kenya, provision of quality teaching and learning in secondary schools faces major challenges which include inadequate funding, management and supervision of teaching and learning process. This has been echoed in various policy papers including; Sessional paper no.14 of 2012 on Educational reforms and training, Sessional paper no.1 of 2019 policy framework for Education, training and Research for sustainable development, National Education Sector Strategic Plan (2018-2022). Secondary school managers are chosen among the practicing teachers on the basis of their experience and their job group. They are not given special training apart from the induction services they attend organized by the KEMI and other professional bodies. With principals appointed by TSC in Siaya County, the performance of secondary school in KCSE has been on downward trend in the past five years. Therefore, there was need to undertake the study to investigate the influence of managerial competencies on performance measurement in public secondary schools in Kenya. The objective of the study was to establish the extent of Relationships between Managerial Competencies and Performance Measurements applied by Secondary School managers in Siaya County Kenya. The study adopted concurrent triangulation within the mixed method approach. The study was conducted in Siaya County and the study population consisted of all 243 school principals, 260 deputy school principals and 243 Board of Management Chairmen. A saturated sampling was used to sample all the 243 principals, 260 deputy principals and 243 Board of Management Chairmen for the study. Questionnaires, interview schedule and documentary analysis were employed to collect data. Validity was addressed with help of candidate's supervisors. Ten percentage of the study population was set aside for pilot study. Quantitative data was analyzed through the use of descriptive statistics, such as frequencies, percentages and means. Qualitative data from in-depth interviews and documentary analysis was analyzed thematically in line with the research objectives and reported in narrative and direct quotations of respondents. Reliability of the questionnaire was tested using Cronbach's alpha. The researcher concluded that secondary school managers demonstrated a wide range of performance indicators which were both financial and non-financial in nature. The competencies from maximization of output, consolidation and continuity were ranked highly and director role and producer role had shown strong positive with competencies finance indicators. It was recommended that secondary school managers need to focus more on both result and determinant measures. The study recommended that the education stakeholders should review and provide a more holistic and broader school education system informed by validated performance measurement and managerial competencies infused with information communication technology.

Keywords:

School, Management, Teachers, Performance, Measurement

INTRODUCTION

Education significantly contributes to development as espoused in sustainable development goal number four on inclusivity, equity, and quality. Education promotes lifelong learning opportunities for all. Education and training is a key area of focus in the social pillar of education vision 2030. Education aims at developing learners intellectually and that sharpens and defines a country's culture and principles that guide approaches to life in all its dimensions. It is seen as the most effective process for creating values for civil justice and democratic society. UNESCO, Global Partnership in Education (2014), Iroegbu (2017) exposed that investing in Education is critical for sustainable, peaceful and resilient society. Education must impact skills for self-reliance and be basic in transference of knowledge that address health, food security, gender inequality and climate change.

Branch et. al., (2013), posits that much research has demonstrated that retention and the quality of education depends primarily on the way schools are managed, more than the abundance of available resources, the capacity of schools to improve teaching and learning is strongly influenced by the quality of the leadership provided by the school manager. In a study carried out in Latin America by UNICEF (2000), it found out that about 50,000 pupils in grade 3 and 4 did not have materials to use in class because of ill equipped library (Madani, 2019). They were more likely to score lower grades in examinations compared to pupils from schools with adequate classroom materials. Institutions which are properly managed provide learning and teaching experience leading to retention of both teachers and learners (Madani, 2019).

In Africa, Measurement and assessment is an essential element of teacher competencies. Few studies have been carried out on teacher competencies in educational assessment of students (Mpofu & Maphalala, 2018). According to Day & Sammons (2016) such features include: Commitment to success for all; flexibility and responsiveness; common vision; Environment of interesting learning; objective and effective disciplinary procedures. According to Otoo et al., (2018) the most effective programmes were: foster connectedness; increasing the trust placed in students; Provide tasks with immediate tangible benefits; institutions with diverse curricula student needs. Research around the world has shown that low expectations for student achievement permeate educational systems, (Muraki and Woods, 2007)

In East Africa, Uganda government has developed competency profile for primary school teachers (MOEST, 2012; Birugi, 2013). Due to importance attached to teacher competency worldwide, Uganda has developed competency profile for primary school teachers MOEST, (2014). The profile was to help stakeholders direct their efforts appropriately in their quest for teacher improvement. Research by Nzilano (2014), on teacher competencies of pre-service teachers on teaching practice revealed that there are limited competencies among pre-service teachers in Tanzania. This research failed to recognize manifest competencies. The present study assessed manifest competencies of practicing teachers. Mosha, (2015) observed that teachers 'knowledge competency was a factor affecting students' academic achievement in English language in Zanzibar rural and urban secondary schools.

In Kenya, all head teachers are currently undergoing a management course at the Kenya Management Institute (KEMI) to improve on their management skills. The management areas that KEMI exposed in school management areas are twenty seven in numbers of which fifteen are under coaching, four under mentorship and eight under induction. They are as follows; communication skills, institutional financial management, public procurement, assets and Disposal Act, Legal framework in education, Financial literacy skills, Personal health and Wellbeing, Conflict and resolution, Norms and Values, Knowledge management, preparation for exit, professional audit, Career progression development, Learners Safety and protection and Curriculum, skills to be imparted during the training included; flexibility and adaptability data management, creativity, emotional intelligence and technical acumen. Emerging issues addressed included; climate change, global warming and migration, ethical social dynamic technology, (Republic of Kenya, 2012; Kamutu, 2018; MOE, 2020).

The Kenyan government committed in Education Bill 2012, that learners from marginalized communities will not be discriminated and hindered from attaining their highest level of education (Republic of Kenya, 2012). The school service environment has also contributed to learning in many important ways. When

identifying quality schools, researchers point at specific features within the school systems that lead to efficiency and effectiveness.

According to Mobegi et. al., (2010), Mutuku (2012), managers should take up their roles as quality assurance officers and lead educationist in their schools as stated in the TSC Code regulation 42(2), 17(1,2,3,4), 71, 108, 88(1) TSC Code of regulation in the Basic Education Act 2013. The schools should adopt appraisal forms for the employees, tailored to improve quality and involve observational techniques that ensure it captures results from multiple learning methods. Institution managers ought to come up with creative ways to increase revenue to reduce the financial burdens students and parents carry. This is geared towards improving pupil absenteeism, indiscipline and dilapidated or inadequate learning facilities. The schools are also advised to engage with quality assurance officers often, to provide technical assistance on schools matters and public relations. The head of institutions need to have regular consultations with the Teachers Service Commission (TSC) to address issues of staffing that may affect learning activities. Head of institutions should come up with creative techniques of mobilizing of resources to help in learner's retention and effect quality education through old students' community and well-wishers (Achoka, 2007).

In Siaya County, Quality Assurance Assessment Report by Rarieda Sub county in Siaya county showed that most schools have dilapidated infrastructure that cannot sustain teaching and learning (Rarieda Sub county Director Report, 2018). Thus, it is necessary to understand the importance of school managers because for students to perform well, schools need school managers who are transformational. The school manager has to provide adequate facilities, quality human resources, adequate finances, good curriculum management, quality communication resources and maintenance of discipline. Further, the school manager has to motivate his charges at the school. The parents, local community, and education officials have to be engaged in order to produce students who have attained improved academic performance. Thus, the school principal is a catalyst of the force that leads us to better student's academic achievement (Morales-Doyle, 2017).

Key performance measurements have been applied in various areas which include use of NEMIS on students enrolments, New-funding model which apply means and test instruments, Establishing artificial intelligence with chat GPT, University worldwide ranking, Judiciary performance appraisal tools, Government Institution compliancy to performance contracting, assessment of performance of key economic sectors eg economic output by activities and percentage contribution to GDP by activities (Ambani, 2023).

Key performance indicators in school performance include student achievement discipline referrals, attendance rates cumulatively, Graduate rates, teachers satisfaction, Financial performance, supplier performance, services quality, pressure utilization, Admission Growth rate, enrolment, student competition rate, paying workers income, benefit gained in academic program among others like the Ministry of Education and Teachers Service Commission have not made comprehensive effort to develop or broader uniform performance measurement models (Osman et al., 2012).

PROBLEM STATEMENT

Intervention by Kenyan Government through Ministry of Education in terms of policies, legal framework and changes in the educational system to improve on managerial competencies and performance measurement has been of critical concern. The performance of public secondary schools in Siaya County has been on a reducing trend for the past five years (2015 – 2020). The estimated performance level in Siaya County public secondary schools ranges from mean score of 3.467 in worst case scenario to a mean of 6.7282 in the best case. It is assumed that in the best-case scenario, there is no further drop in performance beyond the reported, while in the worst-case scenario, performance continue in a linear fashion (Siaya County Education report on KCSE performance 2015 – 2020). It is apparent that, the aforementioned critical challenge exists despite education sector claim of the largest share of national budget. Application of performance measurement should define educational sector complexity efficiently effectively minimize controversy and accurately, determine and develop comprehensive performance standard. In view of the importance of managerial competencies to the attainment of quality performance and educational goal, this study sought to investigate the influence of managerial competencies on performance measurement in secondary schools.

THEORETICAL FRAMEWORK

This study was guided by the result and determinant model for performance measurements and managerial competencies model for managerial competencies. The result dimension consisted of finance and competition as sub dimension and performance measures or indicators included market share, customer or stakeholder satisfaction for competitiveness and liquidity indicator market ratio, for finance. Determinants

dimensions have four sub-dimensions namely: quality of services, which consists of communication, friendliness comfort, and security indicators, Flexibility sub-dimension consisted of (delivery of service, volume flexibility indicators), resource utility sub dimension consisted of productivity and efficiency indicators and innovation sub-dimension consisted of performance of individual innovation as performance indicators. The result dimension prioritizes the organization goals. The determinant dimension was conceptualized as a leading indicator. This study involved 37 performance indicators from the result and determinant dimension. Performance measurement enabled management to monitor employee performance and provide feedback on the setting of goals among others (Souza & Beuren, 2018).

Armstrong (2012) stated that the managerial competencies model or framework consisted of five dimension namely; maximization of unit(Director role and producer role), Consolidation and community(Monitor and Coordinating role), Human resource monitor, and Adaptive and change role (innovation and broker role) and guided by the following skills; Interpersonal skill, intrapersonal skill, leadership skill, communication skill, operational and technical skill, talent skill, Emotional intelligence skill, conflict resolution problem solving and supervisory skill. The maximization of the output dimension, consolidation and community dimension, Human resource dimension, and adaptive and change dimension were conceptualized as leading competencies. The studies involved twenty-two competencies from the aforementioned competencies dimension. The advantages of management competencies are to allow for the institutionalization of skills. The absence of a skill set symbolizes a significant shortfall in that competency area; the framework allowed for context unique to efficiency (Geva & Rosen, 2018). Managerial excellence and competencies anchor the centre of the framework and provide descriptive aspirational overreaching focal point encompassing specific competencies areas; Diversity, Equity, Inclusive sound managerial excellence, and critical to the roles outlined in five competencies impacted positively on performance (Cardy & Selvarajan, 2006). Theoretical framework was relevant to this study because performance measurement and management competencies can be used to determine and align the mission and vision of a learning institution.

CONCEPTUAL FRAMEWORK

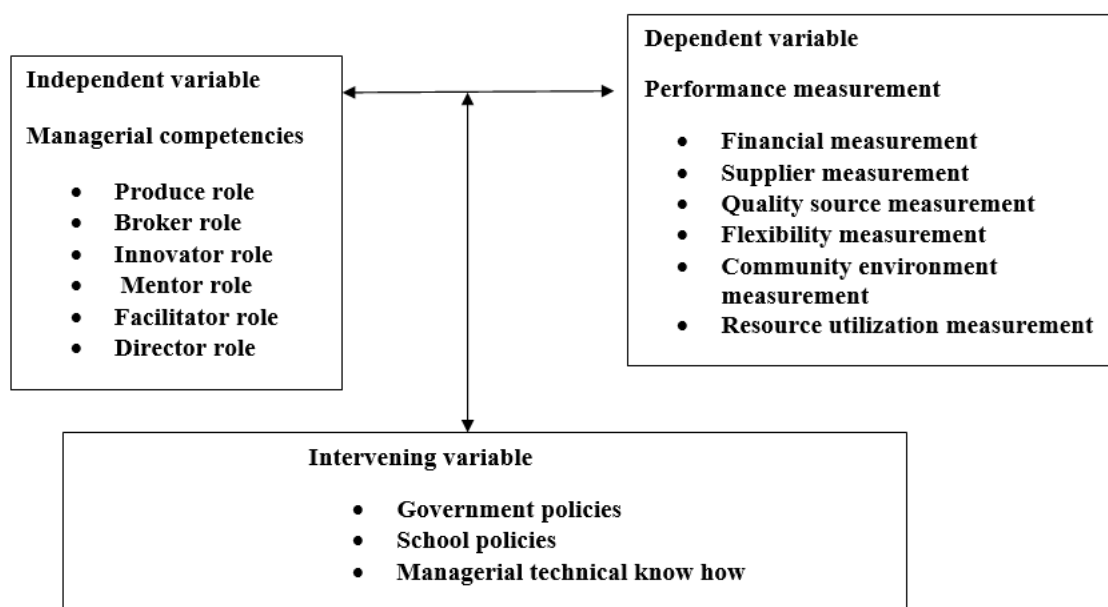


Fig. 1. Conceptual frameworks showing interplay of Dependent Variable, Independent Variable and Intervening Variable. Source (Researcher, 2023).

METHODOLOGY

The study adopted a concurrent triangulation design within mixed method approach. In this design, the investigator collected both qualitative and quantitative data at the same time during the study. Quantitative data was analyzed using both descriptive statistics (frequency, mean and percentages) while inferential statistics was analyzed using correlational method (Pearson product moment) (Creswell, 2014). The study population was carried in all the 243 public secondary schools in Siaya County. The target population consisted of 746 respondents in schools from Siaya County. Of the respondents, 243 were school principals, 260 Deputy School Principals and 243 Board of Management Chairmen who are charged with the management of schools. Secondary schools are considered appropriate because they have clear and similar organizational structures hence the results can be generalized without much error, as the population is relatively homogenous. 10% of 243 principals set aside for piloting. A pilot study conducted to improve external validity of the instruments while internal validity of the constructs investigated by subjecting the survey data to suitability tests (Cohen, 2005). In this study, reliability of the questionnaire tested using Cronbach's alpha. In the interpretation of the reliability of results, the maximum Cronbach's alpha coefficient is to 1.0 (Tavakol, & Dennick, 2011).

The tests were conducted using Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin measure of adequacy sampling (KMO Index) (Zeynivandnezhad et. al., 2019).

The researcher obtained a permit from the National Council of Science, Technology and Innovation (NACOSTI). County Education Officer (CEO) for Siaya County also provided consent before the study commenced. After this stage, the researcher booked appointments with school Principals according to their timetables and administered the questionnaires to teachers, students and Principals. Since respondents are literate, they requested to fill the Questionnaires individually. The researcher was administering all questionnaires randomly in the selected public secondary schools in Siaya County (Ridder, 2017). The primary quantitative and qualitative data collected from the field was first edited to remove glaring errors and isolate incomplete questionnaires. Coding was done and entered into Statistical Package for Social Science Computer Programme version 22.0 to assist in the analysis of the data (Orodho, 2013). In quantitative analysis, Quantitative Data Analysis Matrix was used and thematic framework for the analysis used for qualitative analysis (Goldsmith, 2021).

Table 1: Quantitative Data Analysis Matrix

Research Hypotheses	Independent Variable	Dependent Variable	Statistical Test
Relationship between performance measurements and managerial competency of principals in public secondary school in Siaya County.	Managerial Competency	Performance measurement	- Means - Percentage
Relationship between management competencies and performance measurements of principals in public secondary school in Siaya County.	Managerial competency	Performance measurement	- Means - Percentage - Pearson correlation - Regression analysis
Relationship between performance measurements and managerial competencies of principals in secondary schools.	Managerial competency	Performance measurement	- Means - Percentage - Pearson correlation - Regression analysis

Table 2: Phases of Thematic Analysis.

Phase	Description
1. Familiarizing oneself with the data.	Transcribing data, reading and re-reading the data, noting down the initial ideas.
2. Generating initial codes.	Coding interesting features of the data in a systematic manner across the entire data set, collating data relevant to each code.
3. Searching for themes.	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes.	Level 1: Checking if themes work in relation to coded extracts and the entire data set. Level 2: Generating a thematic 'map' of analysis.
5. Defining and naming the themes.	Ongoing analysis to refine the specifics of each theme and overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report.	The final opportunity for analysis. Selection of vivid extract examples, final analysis of

While undertaking the study, the researcher considered ethics keeping the confidentiality of all the information from the respondents, protection of the respondents’ identities, and their rights to exercise their freedom of thought.

RESULTS AND DISCUSSION

Response return rate

The study sampled 243 secondary schools from where 223 school managers, 260 Deputy Principals and 223 BOM Chairmen were administered with questionnaire and interview respectively, this is presented in Table 3.

Table 3 Response Return Rate

Category of respondent	Study Population	Sampled	Retained	%
School Managers	243	223	223	90
Deputy Managers	260	234	234	90
BOM Chairmen	242	223	223	90
Total	744	680	680	90

On the issued questionnaire and interview schedule respectively, school managers 223 (90%) 234 (90) Deputy School Mangers and 223 (90%) returned filled questionnaires and responded to interview schedule, hence giving an average of 90%. This response was acceptable since it was above 80%, according to

(Creswell, 2014). The above average response rate was realized was achieved because the researcher personally reached out to learning institutions and administered questionnaires. There was 100% interview return rate because of the researcher personal initiative to make appointment with the respondents and where challenges were met new appointment were made at the convenience of the respondent.

Background Information

The background information of the respondents was investigated to ascertain the representatives and reliability of the data. Gender, age and involvement in institutional administration was captured and detailed and tabulated in the subsequent subsections.

Gender representation of the respondents

The gender bias of the informant was appropriate to help establish which gender was keen in learning institutions management. Gender presentation was analyzed to include three categories of respondent as school principals, deputy principles and BOM Chairmen. The result are tabulated in Table 4.

Table 4 Gender Respondent Representation

Gender	School Principal		Deputy Principal		BOM Chairmen	
	F	%	F	%	F	%
Male	181	81	187	79.9	180	80.7
Female	42	19	47	20.1	43	19.3
Total	223	100	234	100	223	100

Table 4 illustrates that of the school managers, male are the majority 181 (81%) while female are 42 (19%). The deputy principals' males are 79.9% (187) while the females are 47 (20.1%). As for the chairmen of Board of Management the gender was heavily skewed with male gender dominating at 80.7% (180) and female being only 19.3% (43). The implication of this finding is that gender balance in leadership in public learning institutions in Siaya County is yet to be addressed.

Respondents Age

The study made an attempt to establish the age of the respondents in order to determine the age bracket which was more responsive to the learning institution management. This was carried out in categories to involve school principals and their deputies and BOM managers. The summary of the distribution by age bracket is shown in Table 5.

Table 5 age of the school managers, Deputy School Managers and BOM Chairmen

Category	Frequency	Percentage
School Managers Age Bracket n = 223		
28 – 37 Age	10	0.04
38 – 47 Age	103	46.8
47 and above	110	49.32
Level of Education		
Diploma	42	18.82
Bachelor Degree	153	68.6
Masters and above	28	12.55
Work Experience		
Under 3 years	40	17.93

4 – 6 years	53	23.76
7 – 11 years	92	42.25
11 and above years	38	17.04
Deputy School Managers Age Bracket n = 234		
28 – 37 Age	15	0.67
38 – 47 Age	183	78.2
47 and above	26	11.1
Deputy School Managers Level of Education		
Diploma	29	12.37
Bachelor Degree	200	75.4
Masters and above	5	2.1
Work Experience		
Under 3 years	60	23
4 – 6 years	152	58
7 – 11 years	18	6.9

Age and duration of service of BOM Chairmen n = 223

	Minimum	Maximum	Mean Age
Age	45	66	55.5
Duration served in the BOM	2	10	6

Table 5 shows that out of the 223 majority of the school managers, 110 (49.32%) are aged 47 and above, 38 – 47 years age are 103 (46.8%) and 28 – 37 age are 10 (0.04%). Managers with Diploma are 42 (18.82%), first degree were 153 (68.6%) and post graduate lies at 28 (12.55%) respectively. Majority of school managers had 7 – 11 years 92 (42.25%), 4 – 6 years are 53 (23.76%), under 3 years are 38 (17.04%). For the 260 Deputy School Managers, majority are aged 38 – 47 years 183 (78.27%), 47 and above age are 26 (11.14%) and lastly 28 – 37 age are 15 (0.67%).

Majority of Deputy Managers work experience ranged between 4 – 6 years are 152 (58%), under three years are 60 (23%) and 7 – 11 years are 18 (6.9%) and those with Diploma level of education were 29 (12.3%). First degree are 200 (85.4%) and masters and above are 5 (2.1%). This was in agreement with Ayoo (2002) who reported that as years of service increase most teachers get administrative positions and also become more productive in terms of content delivery to learners. Lastly the findings showed that the average for BOM Chairmen is 55.5 years with minimum age being 66 years. The duration of service range between 2 years to 10 years. This showed that BOM Chairmen had served for considerable duration to be able to understand performance measurements and managerial competencies of the school managers within their respective institutions.

Reliability Analysis

The result in the table 6 below showed a Chronbach's alpha (α) above 0.6 for all the scales indicators an acceptable level of reliability (Tavakol, & Dennick, 2011). Most of the alpha values were acceptable since they were > 0.6 for all the dimensions. The 37 performance indicators and 22 management competencies were reliable and consistent measures of eight managerial roles.

Table 6. Reliability Analysis

N=124	Alpha Values	Number of indicators for each measure
<u>Performance Dimension</u>		
Competencies	0.649	16
Financial Performance	0.7091	10
Quality service	0.819	5
Flexibility	0.805	3
Personnel utilization	0.615	3
<u>Managerial Roles</u>		
Director role	0.755	3
Producer role	0.671	3
Coordinator role	0.825	3
Facilitator role	0.716	3
Mentor role	0.695	3
Innovator role	0.638	4

School managers' response on the influence of Managerial Competencies on Performance Management.

Table 7 shows the response of school managers to interview statements

Statements	SA	A	N	D	SD	Mean
School managers apply wide range of performance management in their school	23 23(76%)	5 5(16.6%)	2 2(6.6%)	0 0	0 0	9.3
School managers apply wide range of managerial competencies	25 25(70%)	6 6(20%)	3 3(10%)	0 0	0 0	9
Managerial competencies applied influence the performance management in the school	24 24(80%)	3 3(10%)	3 3(10%)	0 0	0 0	9.0

Findings on table 7 established that 80% of school managers strongly agree that managerial competencies has strong positive correlation with performance measurement 10% agree that there is a relationship between managerial competencies and performance measurement while 10% remained neutral. Managerial

competencies such as maximization of output which consist of director role and producer role, consolidation and community which consist of monitor role and coordinating role which consist of innovative role and Broker role positively influence or correlate positively with performance measurement which consist of result management which included financial and non-financial measurement. These findings were similar to that of (Irungu, 2006) jointly stated that managerial competencies are ties that bind school together taking holistic look of the people, purpose and process. Therefore, to implement performance measurement, school managers need to apply managerial competencies (Kristof-Brown et al., 2005). Deputy School managers' response on the influence of Managerial Competencies on Performance Management.

Table 8 Deputy Managers Collected View on relationship of managerial competency and performance measurement

Deputy school managers view n = 260	SD	D	N	A	SA
School managers performance measurement is broad and acceptable to all stakeholders (Result and determinant measurement)	0	4	57	199	
		2%	22%	77%	
School managers management competencies model maximization of output focus on human resource, consolidate entire community emphasis flexibility and human resource development	0	11	60	189	
		4%	23%	73%	
School managers influence of managerial competencies (maximization of output, human resource consolidation and community flexibility and change and performance measurement (result indicators and determinant indicators)	0	7	60	193	
		3%	23%	74%	

According to the findings in the table 8, over a half of the deputy school managers at 77% (199) strongly agree that school manager's performance measurement model is broad, validated and acceptable to all stakeholders in the education sector, while 21% agree and 2% (4) remained neutral. In total, 98% of the deputy school managers supported performance measurement models, its application, validation and acceptable. This finding is similar to that of (Rowe, 2002) both established and identified result and determinant measurement sub-model as measure of performance.

Secondly, deputy school managers were probed in the school managers promotion of maximization of output human resource relation, consolidation for continuing and adoption and change as sub-models of managerial competencies and 73% (189) strongly agree, 23% agree and 4% (11) remained neutral. Cumulatively 96% were in support which is concurrent with the findings of (Sheehan, 2015) both advocated for broader managerial competencies sub-model which include planning, coordinating, directing, organizing among others. The deputy school manager's response to influence of managerial competencies (maximization of output, human resource, consolidation and continuity, adaptation and change) and performance measurement (results and determinant measurement) the response was as follows: 74% (193) strongly agree, 23% (60) agree and 3% (7) remained neutral. Cumulatively, 97% (253) of the deputy school managers concurred with the statement and this was consistent with the findings of Geoghegan & Dulewicz (2008) stated that there is a positive correlation between managerial competencies models and performance measurement models.

Board of management chairmen response on influence of managerial competencies on the performance measurement.

Table 9 Relationship of managerial competencies in performance measurement

Board Chairmen view n = 223	SD	D	N	A	Sa
School managers performance measurement (result and determinant measure) are broad and acceptable	0	0	1	23	199
			0.4%	10%	89%
School managers managerial competencies promote (maximization of output human resource management consolidation and continuity, flexibility and change)	0	0	2	43	178
			1%	19%	80%
School managers managerial competencies (maximization of output human resource management consolidation and continuity, flexibility and change influence performance measurement results and determinant measures)	0	0	9	43	171
			4%	19%	77%

The BOM chairmen view on the school performance measurement models was as follows: 89% (199) strongly agree, 10% (23) agree and 0.4% (1) remained neutral. Cumulatively 99.6% responded positively.

This finding is consistent with the finding of (Hanusak, 2010) that stated the two broadly accepted performance measurement sub-model include result and determinant sub-models.

The Board Chairmen were further asked and views sought on school manager's performance of managerial competencies which include maximization of output, human resource relation, consolidation and continuity and flexibility and change. The performance was as follows: 70% (178) strongly agree, 18% (43) agree and 1% (2) remained neutral. In total 99% (222) supported which is in line with the finding of (Kristof-Brown et al., 2005) both stated that managerial competencies sub-model include to a larger extent planning, coordinating, organizing, directing among others.

The board of management chairmen were asked if there is level of influence of managerial competencies sub-models (maximization of output, human relation, flexibility and change and performance measurement module (result and determinant measures sub module). The response was as follows: 77% (171) strongly agree, 19% (43) agree and 4% (9) remained neutral. Cumulatively, 96% (214) supported that there is a correlation. This statement is similar to that finding of (Irungu, 2006) both stated that to achieve positive performance measurement school managers need to be strategic in applying managerial competencies.

Correlation between managerial roles and performance measurement dimensions variables.

A linear relationship therefore indicates that as effective performance of managerial roles increases, managers are likely to opt for better performance measurement dimensions as indicated in table (6a – h). All the managerial roles maximization of output adoption and change consolidation and continuity and Human Relation positively correlates with both results measure and determinant measures. There is a strong relationship with result both measures and determinant measures. There is a strong relationship with result measures compared to result measures which focus on competitiveness and financial performance. This implies that the respondent are likely to make decisions on the determinant measures such as resource utilization and service quality so as to improve organization based on financial determinant strength.

Besides adaptation and change role had the strongest positive correlation with both determinants and result measures compared to other roles. This means managers who exhibit strong adaptation and change was majorly be concerned with performance measurement practice in school. They were continuously measure performance of school and place strong emphasis on both result and determinant measures. It is also very clear that human relation roles were positively related with both results and determinant measures because

manager recognizes the important of human resources as a major determinant of the future organization performance. Human resource can influence performance.

Table 10 Correlation

Model		Unstandardized		Standardized	T	Sig	Co	linearity
		Coefficients		Coefficients		Statistics		
		B	Std. Error	Beta			Tolerance	VIF
1	Constant)	236.528	.000				1.000	1.000
	Adapt	-.647	.000	-.1000				

Dependent variable: PERF

The table 10 shows positive correlation of adaptations and change independent variable performance as dependent variable which include results and determinants as the performance measurement dimensions under result measure we have competition with sixteen indicators and financial sub-dimensional measure of ten indicators. Under determinant we have service quality, flexibility and resource utilization as sub-dimensional measures with indicating 4:3:3 respectively.

Table 11 One sample statistics

	N	Mean	Std. Deviation	Std. ErrorMean
Maxout	2	164.5000	7.77817	5.50000
Consol	2	162.7500	3.88909	2.75000
Human	2	89.2100	1.11723	.79000
Adapt	2	141.8550	2.62337	1.85500

Table 12 One sample test

Test value						
0						
	T	Df	Sig. (2-tailed)	Mean difference	95% confidence interval of the Difference	
					Lower	Upper
Maxout	29.909	1	.021	164.50000	94.6159	234.3841
Consol	59.182	1	.011	162.75000	127.8079	197.6921
Human	112.924	1	.006	89.21000	79.1721	99.2479
Adapt	76.472	1	.008	141.85500	118.2850	165.4250

T-test

/TESTVAL=0

/MISSING=ANALYSIS

/VARIABLES=Competent Financial Flexibility Resource Supplier Innovation

Table 11 and 12 shows one sample statistics and one sample test for the four competencies dimensions namely maximum of output, consolidation and continuity, Human relation

Table 13: Predictors in the Model

Collinearity Statistics						
Beta in	T	Sig.	Partial Correlation	Tolerance	VIF	Minimum Tolerance
Maxout	.b	.	.	.000	.	.000
Consol	.b	.	.	.000	.	.000

Human	.b	.	.	.	.000	.	.000
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Respondent Variable: PERF

Table- 13 above indicates that in comparison to other roles, maximization of output role consolidation and continuity role and human relation roles though not as strong adaptation and change still had strong relationship with competitiveness financial performance utilization flexibility and service delivery. This suggests that managers who intend to achieve consolidation and continuity outcomes was intend to measure the above performance dimensions. This underscores the fact that these managers was measure both financial and non-financial performance. Maximization of output has shown strong relationship with both financial and non-financial performance measures. This suggests that managers who intend to maximize output was concentrate on measures of resource utilization service quality under determinant measures dimensions. Human relation is also included because these measures are within the control of school managers. Out of the four competencies dimension adaptation stand out as a predictor model compared to other three because of strong correlation with the dependent variable performance measurement dimension.

Table 14: Variable entered

Model	Variable entered	Variables Removed	Method
1	Adapt ^b	.	Enter

a. Dependent variable

b. Tolerance = .000 limits reached

Table 15: Model summery

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	1.000 ^a	1.000	.	.	1.000					

a. Predictors: Constant), Adapt

b. Dependent Variable: PERF

Table 16: Anova

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	2.878	1	2.878	.	. ^b
Residual	.000	0			
Total	2.878	1			

a. Dependent Variable: PERF

b. Predictors: (Constant), Adapt

Table 17: Collinearly Diagnostic

Model	Eigen value	Condition Index	Variance Proportions
Dimension			(Constant) Adapt
1	2.000	1.000	.00 .00

Table 17 shows that result measures are better indicators of performance measurement practice than determinant measures. Performance measurement practice seen to explain more variance in result measures. This is an indication that result measures are good indicators of performance measurement practice.

Table 18 below shows one sample statistics and one sample test for the performance dimension.

Table 18 One Sample Statistics

	N	Mean	Std Deviation	Std Error Mean
Competit	2	144.5900	.57983	.41000
Financial	2	160.0500	2.75772	1.95000

Flexibil ity	2	94.8000	119.92531	84.8000
Resource	2	131.000	1.41421	1.000

Table 19 One sample test

Test value = 0						
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence interval of the difference	
Competit	352.659	1	.002	144.5900	139.3805	149.7995
Financial	82.077	1	.008	160.0500	135.2729	184.8271
Flexibility	1.118	1	.465	94.8000	-982.6862	1172.2862
Resource	131.000	1	.005	131.000	118.2938	143.7062

The performance dimensions are competitiveness which has (16 indicators) financial has (10 indicators), flexibility has five indicators, Resource utilization (3 indicators). This represents result and determinant variations.

From the results and determinant dimension, only competitiveness which has 16 indicators qualified to be a predictor variable see table 20. This is as result of stepwise criteria.

Table 20 Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Competent	.	Stepwise Criteria
			Probability-of-F-to-enter <= .50
			Probability-of-F-to-

Remove <= .100

The excluded variable as shown in table

Table 21 Excluded variables

Model	Beta In	T	Sig.	Partial	Collenearity Statistics		
				Correlation	Tolerance	VIF	Minimum Tolerance
1	Financial	. ^b	.	.	.000	.	.000
	Flexibility	. ^b	.	.	.000	.	.000
	Resource	. ^b	.	.	.000	.	.000
	Supplier	. ^b	.	.	.000	.	.000
	Innovation	. ^b	.	.	.000	.	.000

The indication of competitiveness of the result dimension became clearer by establishment of coefficient table 7c and collinearity diagnostic (7f).

Table 22 Coefficient

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sif.	Co linearity Statistics
	B	Std. Error	Beta		Tolerance VIF
1 (Constant)	-278.213	.000	.	.	1.000 1.000
Competitor)	2.936	.000	1.000	.	.

a. Dependent Variable: PERF

b. Predictors in the Model: (Constant), Competent

Table 23 Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	Competent
1	1	2.00	1.000	.00	.00
	2	4.020E-006	705.318	1.00	1.00

This explains nature of relationship which is linear. The regression analysis of the performance dimension was run as indicated in the table 7h and 7g below.

The description statistics

Table 24 Descriptive Statistics

	Mean	Std. Deviation	N
PERF	144.8005	1.69635	2
Competent	144.5900	.57983	2
Financial	160.0500	2.75772	2
Flexibility	94.8000	119.92531	2
Resource	131.0000	1.41421	2
Supplier	135.7500	6.01040	1

Table 25 Correlations

		PERF	Competitive	Financial	Flexibility	Resource	Supplier	Innovation
Pearson Correlation	PERF	1.000	1.000	1.000	-1.000	-1.000	1.000	1.000
	Competent	1.000	1.000	1.000	-1.000	-1.000	1.000	1.000
	Financial	1.000	1.000	1.000	-1.000	-1.000	1.000	1.000
	Flexibility	-	-1.000	-1.000	1.000	1.000	-1.000	-1.000
	Resource	1.000	-1.000	-1.000	1.000	1.000	-1.000	-1.000
	Supplier	-	1.000	1.000	-1.000	-1.000	1.000	1.000
	Innovation	1.000	1.000	1.000	-1.000	-1.000	1.000	1.000
		1.000						
Sig. (1 tailed)	PERF	.	.000	.000	.000	.000	.000	.000
	Competent	.000	.	.000	.000	.000	.000	.000
	Financial	.000	.000	.	.000	.000	.000	.000
	Flexibility	.000	.000	.000	.	.000	.000	.000
	Resource	.000	.000	.000	.000	.	.000	.000
	Supplier	.000	.000	.000	.000	.000	.	.000
	Innovation	.000	.000	.000	.000	.000	.000	.
	PERF	2	2	2	2	2	2	2
	Competent	2	2	2	2	2	2	2
	Financial	2	2	2	2	2	2	2
	Flexibility	2	2	2	2	2	2	2

Resource	2	2	2	2	2	2	2
Supplier	2	2	2	2	2	2	2

It is evidently clear that competitiveness of the result measure correlate well with other variables as compared to other variables such as finance, flexibility, resource, utilization among others.

Adaptation, change and performance measures

The result indicates that adaptation and change had strong positive relationship with result dim which has (10 indicators). And determinant which include service qualities (with 5 indicators) flexibilities (3 indicators) and Resource utilization with (4 indicators). This is consistent with the previous studies of Baard et al., (2014). The school manager must demonstrate internal focus and seek stability with focus on creative thinking and living with change (Baard et al., 2014).

Human Relation Roles and Performance Dimension measures

Human relation has been traditionally positively linked to organization performance. This has been evident in this study of human relation having stronger relationship with other performance dimension. The reason being that, for any activity to be carried out, it has to be done by human being (Staff). Therefore school managers who tend to exhibit stronger human relation role were intending to measure most of the performance dimension. According to Guo (2018) the aim of human relation roles is to build commitment, cohesion and morale among staff, in recognition that individuals have different capabilities and personalities.

Maximization of Output roles and performance dimension measure.

Maximization of output had the strongest relationship with service quality in involvement and resource utilization. This is consistent with previous studies of Odhiambo (2012). This implies that school managers who intend to maximize output was concentrate on measurement of innovation, utilization of resource and service quality dimension. Maximization of output roles, school managers are motivated by the desire to complete task at hand to motivate staff, set goal mission and objectives and clarifies roles (Odhiambo, 2012).

Managerial competency, result and determinant measures

There is a strong positive correlation between managerial roles with both result measures which constitute competitiveness (16 indicators), finance (10 indicators) and determinant measures which is also referred to as non-financial measures which consist of service quality (5 indicators), flexibility (3 indicators) and resource

utilization which has (4 indicators). This linear relationship there indicates that effective performance of managerial roles increases, school managers are likely to opt for better organization performance measures. Human resource is a major determinant of future organization performance and it leads to improvement of performance compared to other school resources. These results are consistent with the findings of the Creemers, (2010). They argued that school managers do not exhibit behavioral complexity; that is they did not move below the eight operation roles with equal facility or assurance (Creemers, 2010).

Managerial competency and performance measurement

The modern corporate environment has initiate many change in organization function that have inversely affected the performance of managerial roles, making stakeholders interested in the way in which school managerial roles contribute to the organization success and performance. Performance measurement must be part of the system which review performance, decide an action and changes the way school operate to achieve their competency in their managerial performance (Neely, 1999). By examining how managerial roles influence the choice of performance measure by school managers, the result provide some prediction associated with managerial. This study found a positive relationship between the managerial roles and performance measurement practices. The result indicated that managerial roles can significantly predict performance measurement practice in public secondary school. There is a positive correlation between managerial roles variables and different performance dimension such as competencies, financial performance service quality, resource utilization and flexibility (Asumeng, 2014).

CONCLUSION

There was a positive correlation between management and performance management practice out of the four significant rearrangement competencies adoptive and change has shown strongest co relation with competitiveness measures of the result dimension in performance measurement.

This demonstrated by correlation results, variable entered, variable excluded and the collinear diagnostic results. The interview result supported the findings by identifying performance dimension of the finance and non-financial sub dimension positively associate with the managerial competencies of maximization of output and consolidation and community sub dimension, which is further reinforced by documentary guide analysis finding which stated that availability of schemes of work stood at 83% with a mean of 0.83 with 13.6% remained neutral and lesson plan notes available stood at 86.6% with a mean of 13.6% of performance

dimension tied well with maintenance of reregister and record of work covered stood at 83% and 86.6% of the managers confirming the same. This is in concurrence to the interview findings of Deputy School Managers, of which a total of Deputy School Managers supported application validation and accept of performance measurement model of results and determinant sub module and financial and non-financial in nature, and its positive association to managerial competencies including maximization of output consolidation and continuity Human Resource and adoptive and change. This was additionally reinforced by 96% of Board of Management Chairmen that they correlate positively.

RECOMMENDATIONS

The education stakeholders should review and provide a more holistic and broader school education system informed by validated performance measurement and managerial competencies infused with information communication technology.

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