



EMPIRICAL ANALYSIS OF AGE AND GENDER AS PREDICTORS OF PERFORMANCE IN EXAMINATION AMONG ADULT LEARNERS

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Abstract:

Kenyan Government is committed to continuous training of public officers, while age and gender are universal phenomena, both have been highlighted as vital predictors of success in academics, however with ambivalent and controversial empirical reports on the relationship between age, gender and academic performance, it remains unclear whether these predictors are associated with examination performance among adult learners. The study utilized data from 350 Kenyan public officers senior management course examination results obtained from Kenya School of Government; computed examination results and records showing trainees age, gender and final cumulative examination scores was used. Regression analysis was utilized to establish the relationship between variables and develop predictive model, while Moderated Multiple Regression was utilized to determine the moderating effect of the predictors. One-way Analysis of Variance (ANOVA) was used to determine statistical significance between group mean; while F-test was used to determine variance within the samples as well as testing the hypothesis for population mean and t-test was used to test significance of difference. Results indicate that age and gender independently has significant influence on examination performance among adult learners (P-value .000 = 0.05, 95% CI). However when the two predictors are subjected simultaneously, age but gender has significant influence on examination performance (p-value .050=0.05, 95% CI). Results also indicate that age but gender has significant moderating effect on examination performance. Based on the findings, the researchers conclude that independently, age and gender influences examination performance among adult learners. However age unlike gender has significant influence when the two predictors are simultaneously considered. It is also concluded that age but gender has a significant moderating effect on examination performance among adult learners. Based on the findings and conclusion of the study, the researchers recommend, among others, that,

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the ministry of Public Service, among other government departments continue to make it mandatory for officers entering senior management in the civil service to take SMC programme, appointment for such course should be based of employees/trainees age.

Keywords: examination, predictors, age, gender, adult learners

1. Introduction

Administration of tests and examinations is considered useful tool in evaluating learners understanding and ability to retain skills and knowledge imparted through training. Research conducted previously has dwelled on the school-aged childhood (7-11) and adolescents (12 to 18 years). Empirical synthesis on predictors of performance in examination among adult learners is scanty (Imlach *et al.*, 2017). This study sought to assess trainees' age and gender as predictors of examination performance among adult learners undertaking Senior Management Course (SMC) at the Kenya School of Government in Kenya. The course is designed for senior managers in the public sector organization that are in charge of the day to day running of their units. Thus this programme attracts officers who are mature and have already been exposed to work environment. SMC is a one month course in which trainees are subjected to examinations in order to evaluate effectiveness of the course in transferring learning.

A review of the literature revealed scarce studies with ambivalent results conducted on this category of learners. It is against this backdrop that the researchers were motivated to pursue this study in an effort to unearth the influences age and gender have on examination performance among public officers so as to inform policy on public service officers on training.

The study sought to meet the following objectives: evaluate the influence of trainees age on performance in examination among adult learners; evaluate the influence of trainees gender on performance in examination among adult learners; determine the moderating effect of age on performance in examination and Trainees gender among adult learners and determine the moderating effect of gender on performance in examination and Trainees age among adult learners. The study was also guided by the following hypotheses:

H₀₁: Trainees age does not influence performance in examination among adult learners;

H₀₂: Trainees gender does not influence performance in examination among adult learners;

H₀₃: Trainee age has no significant moderating effect on performance in examination and Trainees gender among adult learners; and

H₀₄: Trainee gender has no significant moderating effect on performance in examination and Trainees Age among adult learners.

This study will provide necessary knowledge on whether there is need to cap the period (age) under which public officers should be sent for training. With this need conclusions regarding influences of age and gender on academic performance among

adult learners is critical. This study sought to fill this gap by assessing the influence of age and gender on academic performance among adult learners attending Senior Management Course at the Kenya School of Government.

2. Literature Review

Search of empirical literature on the influence of trainees' age and trainees' gender on examination performance among adult learners yielded a number of studies with mixed and rather ambivalent findings.

2.1 Trainees' Age and Performance in Examination

Imlach *et al.* (2017) in their study on age barrier on academic success among older learners was not able to establish any influence of age on academic performances or on cognitive stimulating engagements. (P -value $0.2507 > 0.05$). This study's sample shares many characteristics with the sample in this study; hence the need to establish any relationship if any, through the study on the hypothetical influence of age on older learners in Kenyan set up.

While understanding a study on association of subjective age with estimated age among older adults using both voxel-based morphometry and age predication modeling approach, Kwak *et al.* (2018) established a significant difference in chronological age (same < older; P -value = 0.043) versus (younger < older; P -value=0.013). This finding is therefore inconsistent with Imlach *et al.* (2017) findings, signifying quite ambivalent results and hence need for further conclusive study on this matter. Studies on the influence of age on exam performance among secondary school students, who are at middle lower age, yield mixed results. Momanyi *et al.* (2015) on their study on the effects of students' age on academic performance among secondary school students in Kenyan education system did not establish significant relationship ($F_{2, 486} = 2.99$, P value $3.91 > 0.05$); between age and academic performance.

A further study on post-secondary students undertaking primary teacher training in Kenya who supposedly are older than secondary school students did not establish significant relationship on the two constructs of age and examination performance ($F = 0.11$, P value $0.897 > 0.05$). this study however, found out that, students between the age of 30-39 performed slightly better than those aged between 23 and 25 years, and those between 19 and 21 years, results that were however not statistically significant (Mutuku & Kiilu, 2016).

2.2 Trainees' Gender and Performance in Examination

A study by Aransi (2018) on the Impact of Gender on Student Academic Performance among High School Students on a sample of 656 respondents established significant influence of gender on academic performance. $F(1,653) = 27.8$, $P.000 < 0.05$. Further T-test analysis indicated significant relationship between gender and examination performance $t_{656}(2.174 > 1.960)$. Mutuku & Kiilu (2016) in their study found out that, groups of male students scored lower than groups of female students on primary teacher trainee end term examination. This reflects notwithstanding, the study did not

establish statistically significant relationship between gender and exam performance ($r=0.168$, $P>0.05$). Together with their findings on age, it could not be argued that there exists no empirical argument in favor of contributions of age and gender on examination performance.

Elsewhere in Anambra State in Nigeria, Ezenwafor & Obidile (2016) undertaking study based on financial accounting in technical colleges utilizing quasi experimental design on National Business Certificate (NBC) year II, did not establish statistically significant influence of gender on financial accounting examination ($F_{1,67} = 3.407$; p -value 0.069) among technical college students. In New Bussa in Niger, Adigun *et al.* (2015) in their study focusing on gender and performance in computer studies found mixed results. From 275 students, they established that despite male performing better than females; the result was statistically insignificant based on performance of entire students ($p=0.08$) a result that was not repeated in private schools ($p=0.01$) but public schools ($p=0.07$).

Opong (2013) in his study on gender influence on history performance at senior high school in Cape Coast, Ghana, despite finding that male students perform better than female students in multiple choice examination did not find significant difference between males and females performance in examination ($F=0.274$, $p= .642$). Ojediran & Oludipe (2016) on their study on Impact of Test Anxiety and Gender on Examination Performance among Nigerian pre-service science teachers established that females exhibited lower test anxiety than males. However, despite established significant differences on anxiety levels, the study did not establish significant interaction effect of gender and text anxiety on academic performance ($F_{2,449} = 3.044$; $p=0.49$).

2.3 Trainees Age and Gender and Performance in Examination

Quite interesting relationship has however been established on the relationship of age and gender on children's reading performance. Vlachos & Papadimitriou (2015) established that, older children had better reading scores than younger ones; implying the significance of age on reading which probably has a bearing on academic performance ($F_{1,285} = 11.289$, P value $.001 < 0.05$). This study however did not establish significant relationship between gender and reading performance. A study by Eze *et al.* (2015) among Vocational and Technical Education students in Nigeria did not yield any relationship between age and academic performance. Neither was their independent nor combined contribution was significant (Age P value 0.475; gender 0.125 and combined 0.266). However, combining age and gender yielded a weak contribution to academic performance ($r^2 = 0.006$).

Ezenwafor & Amobi (2016) combining gender and age constructs among other student demographic factors influence on exam performance in business subjects in secondary schools in Awka established significant differences in respondents' ratings based on gender (Z -value $9.7 >$ value 1.960).

Further findings albeit controversial are those from Abubakar & Oguguo (2011) who on their study focusing on age and gender on mathematics and science achievements established a weak positive correlation for age ($r=0.030$) and gender

($r=0.111$). Further, the two constituents combined together led to 1.3% variance; though, these findings were not statistically significant $F_{2,329} = 2.221$; $p\text{-value}=0.110 > 0.05$, $Z\text{-cal} - 1.76 < Z\text{-cal} 1.96$) including no significant difference between females and males in mathematics and sciences. Similar findings were established in a study involving 754 secondary school students pursuing agriculture in Kenya by Ogweno *et al.* (2014). They observed that students gender and age positively influenced student performance in agriculture subject in secondary schools, however, test for statistical significance failed to confirm this findings. Age ($F_{1,252} = 1.335$; $p\text{-value} 0.249$); gender ($F_{1,252} = 1.262$, $p\text{-value} 0.262$); therefore, neither was age nor gender significant predictor of performance in agriculture subject among secondary school in Kenya.

A rather deviating findings are those of Jabor *et al* (2011) undertaken in USA utilizing 2005 Grade Point Average (GPA), for mathematics involving 2,600 students from the National Assessment of Education Progress (NAEP). This study established albeit low effects, statistically significant differences between gender and age groups; gender (Cohen's $d=0.24$) and age (Cohen's $d=0.41$) revealed effect by both constructs albeit small on mathematics performance. Ezenwafor & Amobi (2016) in their study on the influence of student related factors on student academic performance in business subjects utilizing survey design on a sample of 316 principals and secondary school teachers established that, student related factor affected examination performance to a high extent. Particularly, students' age had little influence (mean 2.07, $SD1.18$); however, the null hypothesis test that there is no significant difference in the mean ratings of respondents on the extent to which student related factors (based on gender) affect examination performance was rejected at 95% confidence interval.

Chirchir *et al.* (2019) in their study on antecedents of trainee satisfaction with senior management training among adult public officers who undertook training in Kenya school of Government between 1st July 2017 and 30th September 2017 utilizing post-training survey data established that Similarly age has a significant moderating effect on trainee satisfaction $\{t(197) = -2.07, R^2 = .54, \Delta R^2 = .01, F(1, 190) = 4.27, p\text{-value} .040 < 0.05, 95\% \text{ CI } [-.13, -.003]\}$ while gender has no significant moderating effect on trainee satisfaction with $SMC\{t(197) = 1.00, R^2 = .51, \Delta R^2 = .00, F(1, 190) = 1.01, p\text{-value} .316 > 0.05, 95\% \text{ CI } [-.06, .18]\}$.

3. Materials and Methods

The study is based on data from 350 public officers obtained from examination records at Kenya School of Government. Multivariate Linear Regression was utilized to establish the relationship between one dependent variable and independent variables, while Moderated Multiple Regression was utilized to determine whether the association between the dependent and the independent variables is moderated by age and gender independently as moderator variables (Aguinis, 2004).

One-way Analysis of Variance (ANOVA) was used to determine whether there were any statistically significant differences between the means of groups. F-test was used to find out whether there was any variance within the samples as well as testing

the hypothesis for population mean while t-test was used to test significance of difference. The study adopted multiple regression analysis to estimate relationships among variables and to understand which among the independent variables are related to the dependent variable, as well as to explore the forms of such relationships. Data was presented by the use of tables.

Regression Analysis (RA) was also utilized to enable the study develop predictive model. R was used to determine the strength and direction of the relationship, while R^2 change was used to determine the percentage increase in variation explained by variables. The results coefficient of determination; adjusted R^2 was used to indicate the variance in examination performance as explained by the predictors. The rejection rule was: Reject H_0 if p -value $\leq \alpha$ or if $F > F_\alpha$, where F_α is founded on an F distribution. The principal regression model that was proposed was presented as:

$$y = b_0 + b_1x_1 + b_2x_2 + e \quad (1)$$

4. Results and Discussion

4.1 Diagnostic Tests: Normality and Multicollinearity

To ensure data was fit for regression analysis, normality and Multicollinearity diagnostic tests were done. The Shapiro-Wilk test statistics on examination performance, age and gender resulted on a p -value of $.000 < .05$, this test was used since the dataset was smaller than 2000 elements, hence it was concluded that the data comes from a normal distribution (Tabachnick & Fidell, 2013).

The data set was also tested for multicollinearity. Taking examination performance as the dependent variable, Trainees Gender and Trainees Age, yielded a Tolerance values of .974, .972 with their corresponding VIF of 1.027, 1.029 respectively indicating that data did not suffer from multicollinearity and hence suitable for regression analysis; since a tolerance statistic below .20 is generally considered cause for concern while a Variance Inflation Factor (VIF) of greater than 5 is generally considered evidence of multicollinearity (Tabachnick & Fidell, 2013).

4.2 Model on Predictors of Examination Performance among Adult Learners

Regression Analysis (RA) was used to develop a predictive model on examination performance among adult learners. The regression analysis on Examination performance among adult learners and the two predictor demographic factors age and gender was performed. The results of the Principal Regression Analysis model in Table 1 indicate that the model is significantly predictive of the relationship.

Table 1: Regression Model for Predictors of Examination Performance

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.521 ^a	.271	.267	5.15282	.271	64.511	2	347	.000
2	.513 ^b	.263	.261	5.17407	.263	124.120	1	348	.000
3	.170 ^c	.029	.026	5.93877	.029	10.363	1	348	.001

a. Predictors: (Constant), Trainee's Age, Gender
b. Predictors: (Constant), Trainee's Age
c. Predictors: (Constant), Gender

The results coefficient of determination ($R^2 = .27$, $\Delta R^2 = 0.271$) indicate that approximately 27% of the variance in examination performance among adult learners can be explained by the predictors age and gender. However independent influence of trainees age ($R^2 = .26$, $\Delta R^2 = 0.263$) and gender ($R^2 = .029$, $\Delta R^2 = 0.029$) indicate that approximately 26.3% and 2.9% of variance in examination performance among adult learners can be explained by age and gender respectively.

Analysis of variance between examination performance among adult learners and predictor variables age and gender is summarized in Table 2.

Table 2: Analyses of Variance between Examination Performance and Predictor Variables

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3425.716	2	1712.858	64.511	.000 ^b
	Residual	9213.382	347	26.552		
	Total	12639.098	349			
2	Regression	3322.806	1	3322.806	124.120	.000 ^c
	Residual	9316.292	348	26.771		
	Total	12639.098	349			
3	Regression	365.503	1	365.503	10.363	.001 ^d
	Residual	12273.595	348	35.269		
	Total	12639.098	349			

a. Dependent Variable: Examination Performance
b. Predictors: (Constant), Gender, Trainee's Age
c. Predictors: (Constant), Trainee's Age
d. Predictors: (Constant), Gender

The result on ANOVA indicate Regression model is predictive of Examination Performance thorough SMC training intervention $\{F(2, 347) = 64.51 > 3.84, p\text{-value } .000 < 0.05, 95\% \text{ CI } [79.7, 87.1], 99\% \text{ CI } [78.6, 88.2]\}$. This suggests that the age and gender has simultaneous and significant effect on Examination Performance among adult learners. This imply that combined age and gender parameters influence examination performance among adult learners. Its further noted that models on age and gender independently are also predictive; age $\{F(1, 348) = 124.1 > 3.84, p\text{-value } .000 < 0.05, 95\% \text{ CI } [82.6, 88.6], 99\% \text{ CI } [81.6, 89.3]\}$ and gender $\{F(1, 348) = 10.3 > 3.84, p\text{-value } .001 < 0.05, 95\% \text{ CI } [63.8, 67.8], 99\% \text{ CI } [63.2, 68.3]\}$ respectively.

An analysis of variable coefficient was done to develop a predictive regression equation on Examination Performance among adult learners. Table 3 shows the standardized coefficients for predictors Examination Performance proxied through Senior Management Course (SMC).

Table 3: Standardized Coefficients for Predictors of Examination Performance

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		99.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Lower Bound	Upper Bound
1	(Constant)	83.464	1.864		44.785	.000	79.799	87.130	78.637	88.291
	Trainee's Age	-.384	.036	-.498	-10.736	.000	-.455	-.314	-.347	2.545
	Gender	1.099	.558	.091	1.969	.050	.001	2.197	-.477	-.292

a. Dependent Variable: Examination Performance

This result suggests age and gender have partial significant effect on examination performance among adult learners through SMC, therefore increasing participants' age reduces the ability of an adult participant to produce better examination results; while gender difference will also influence examination performance.

The regression equation is presented as:

$$y = b_0 + b_1x_1 + b_2x_2 + e \quad (2)$$

Where

y : predicted score on Examination Performance

x_1 : Participants Age

x_2 : Participants Gender

The following equation illustrates the results of RA procedure.

$$y = 86.46 - 0.49 x_1 + 0.09 x_2 + 1.86(\text{Error term}) \quad (3)$$

4.3 Test of Significance

t- test was used to determine significance of predictor influence, results indicate that age independently has significant influence on examination performance among adult learners $t(350) -11.141$, $p\text{-value} .000 = 0$, 95% CI [82.6, 88.6], 99% CI [81.6, 89.5]}. Similarly gender independently has significant influence on examination performance among adult learners $t(350) 3.219$, $p\text{-value} .001 < 0.05$, 95% CI [63.8, 67.7], 99% CI [63.2, 68.3]}. however when the two predictors are subjected simultaneously, age has significant influence on examination performance among adult learners $t(350) -10.736 = 0$, $p\text{-value} .001 < 0.05$, 95% CI [-.455, -.314], 99% CI [-.477, -.292]; but gender has no significant influence of examination performance among adult learners $t(350) 1.969$, $p\text{-value} .050 = 0.05$, 95% CI [.001, 2.197], 99% CI [-.347, 2.545].

4.3.1 Hypothesis Testing

The study sought to test the hypothesis H_{01} Trainees age does not influence Examination Performance among adult learners; from the result on Table 3, it is observed that $\{F(1, 348) = 124.1 > 3.84, p\text{-value } .000 < 0.05, 95\% \text{ CI } [82.6, 88.6], 99\% \text{ CI } [81.6, 89.3]\}$. Therefore the null hypothesis H_{01} was rejected. H_{02} Trainees gender does not influence Examination Performance among adult learners; from the result on Table 3, it is observed that $\{F(1, 348) = 10.3 > 3.84, p\text{-value } .001 < 0.05, 95\% \text{ CI } [63.8, 67.8], 99\% \text{ CI } [63.2, 68.3]\}$. Therefore the null hypothesis H_{02} was rejected.

The above results on trainees age are consistent with those of Kwak *et al.*, 2018; Ezenwafor & Amobi, 2016; Vlachos & Papaddimitrius, 2015 & Jabor *et al.*, 2011 who in their studies established significant influence of age on examination performance, however the findings are inconsistent with those of Imlach, *et al.*, 2017; Mutuku & Kiilu, 2016; Momanyi *et al.*, 2015; Eze *et al.*, 2015 & Ogwano *et al.*, 2014. The above results on trainees' gender are consistent with those of Aransi, 2018; Ezenwafor & Amobi, 2016 & Jabor *et al.*, 2011. But however inconsistent with those of Ojediran & Oludipe, 2016; Adigun *et al.*, 2015; Ogwano *et al.*, 2014 & Abubakar & Oguguo, 2011.

4.4 Moderating Effect of Trainee Age on Examination Performance and Gender

The study sought to establish the influence of participants' age as a moderator between examination performance and participants' Gender. Moderated regression analysis was done to determine whether the relationship between Examination Performance and Gender was moderated by age as moderator variable independently. Moderated multiple regression (Aguinis, 2004) was carried out. Table 4 shows Variation explained by the addition of the moderating variables.

Table 4: Variation explained by the addition of the moderating variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.170 ^a	.029	.026	5.93877	.029	10.363	1	348	.001
2	.521 ^b	.271	.267	5.15282	.242	115.256	1	347	.000
a. Predictors: (Constant), Gender									
b. Predictors: (Constant), Gender , Trainee's Age									

Model 2 indicate the increase in variation explained by the addition of participants age as a moderator term from the change in R^2 . It is observed that R^2 and change in R^2 is reported as ($R^2 = .27, \Delta R^2 = .242$); 24.2%, which is a proportion. It is observed then that the change in R^2 is 24.2% which shows the percentage increase in the variation explained by the addition of participants Age as a moderator variable; it is further observed that this increase is statistically significant $\{F(1, 347) = 115.3 > 3.84, p\text{-value } .000 < 0.05, 95\% \text{ CI } [79.7, 87.1]\}$.

It is therefore concluded that participants' age does moderate relationship between examination Performance among adult learners and participants' gender. The result on ANOVA displayed a probability level of significance value of 0.001 and 0.000

which are much smaller than 0.05, this therefore indicate that the moderated Regression model is predictive of the moderating effect of participants age as a moderator.

4.5 Moderating Effect of Trainee Gender on Examination Performance and Participants Age

The study sought to establish the influence of participants' gender as a moderator between examination performance and participants' age. Moderated regression analysis was done to determine whether the relationship between Examination Performance and participants' age was moderated by gender as moderator variable independently. Moderated multiple regression (Aguinis, 2004) was carried out. Table 5 shows Variation explained by the addition of the moderating variables.

Table 5: Variation explained by the addition of the moderating variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513 ^a	.263	.261	5.17407	.263	124.120	1	348	.000
2	.521 ^b	.271	.267	5.15282	.008	3.876	1	347	.050
a. Predictors: (Constant), Trainee's Age									
b. Predictors: (Constant), Trainee's Age, Gender									

Model 2 indicate an increase in variation explained by the addition of trainees' age as a moderator term from the change in R². It is observed that R² and change in R² is reported as (R² = .27, ΔR² = .008); 0.8%, which is a proportion. It is observed then that the change in R² is 0.8% which shows the percentage increase in the variation explained by the addition of participants Gender as a moderator variable; it is further observed that this increase is not statistically significant {F(1, 347) = 3.87>3.84, p-value .050=0.05, 95% CI [79.7, 87.1]}.

It is therefore concluded that participants gender does not significantly moderate relationship between examination Performance among adult learners and participants age. The result on ANOVA displayed a probability level of significance value of 0.000 which is much smaller than 0.05, this therefore indicate that the moderated Regression model is predictive of the moderating effect of participants Gender as a moderator.

4.5.1 Hypothesis Testing

The study sought to test the hypothesis H₀₃ that Trainee age has no significant moderating effect on examination performance among adult learners and Trainees gender; and H₀₄ that Trainee Gender has no significant moderating effect on examination performance among adult learners and Trainees Age. From the result, the following decisions were therefore made regarding study hypotheses: H₀₄ Trainees Age has significant moderating effect on examination performance among adult learners {F(1, 347) = 115.3>3.84, p-value .000<0.05, 95% CI [79.7, 87.1]} (H₀₄ was therefore rejected); H₀₅ Trainees Gender has no significant moderating effect on on examination performance among adult learners; {F(1, 347) = 3.87>3.84, p-value .050=0.05, 95% CI

[79.7, 87.1]]. H_05 was not rejected). This result is consistent with findings of Sanjeevekumar & Yanan (2012) and those of Saad & Mat (2013) who points out relationships between trainees' demographics such as age. They are also consistent with the findings of Chirchir *et al.* (2019) finding on age and gender among other demographic factors as moderators in trainees' satisfaction. However it is inconsistent with those of Ngure & Njiru (2013) who while assessing the reactions of employees who had undergone SMC course, established a negative correlation between such constructs and participants experience, job group and age and hence poised that influence of trainee demographic factors needs to be evaluated.

5. Recommendations

It is recommended that as the ministry of Public Service, County Public Service Boards and County Assembly Public Service Boards and other departments in charge of Human Resource Development in other Government Departments, Autonomous Government Agencies, State Corporations Advisory Committee (SCAC) and Semi-Autonomous Agencies continue to make it mandatory for officers entering senior management in the civil service to take SMC programme, appointment for such course should be based of employees/trainees age preferable as indicated in PSC 2(a).

It is also recommended that as all Ministries, Departments and Agencies project their staff for training as per the HRM&D policies, attention should be given to the third gender rule, since this study's result indicate albeit low influence of gender on examination performance; this could go a long way in helping realize gains in the implementation of the gender policy, MHRMAC and CHRMAC in their meeting to approve training schedules should make sure that none of the gender is disadvantaged.

6. Conclusion

Based on the foregoing; it is concluded that combined age and gender influence examination performance among learners undertaking studies at Kenya school of Government. However Age has significant influence unlike gender when the two predictors are simultaneously considered. It is further concluded that the older a trainees is the lesser the chance that he/she performs well relative to other in examination performance.

It is also concluded that age has a significant moderating effect on examination performance among adult learners and trainees gender, but gender has no significant moderating effect on examination performance of adult learners and age.

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