



ISSN 2278 – 0211 (Online)

Analysis of Adequacy of Infrastructural Facilities and Access to Technical Vocational Education and Training in Trans Nzoia County, Kenya

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Abstract :

Background: Technical and Vocational Education and Training (TVET) refers to a range of learning experiences which are relevant to the world of work and contemporary workplaces. The core role of Technical and Vocational Education and Training (TVET) is developing professional skills in youth; equip them with basic knowledge and scientific principles to prepare them for work. Based on this vital role it is expected that youth enroll in TVET for self-reliance. However, the preliminary data from Trans-Nzoia County TVET office showed that there is low enrolment in TVET institutions prompting this study to determine the influence of infrastructural facilities on access to TVET.

Materials and Methods: The study adopted The Production Function Theory which suggests that an increase in access to TVET is dependent on the inputs. The scope of the study was 28 County Vocational Training Centers with 161 trainers and 2931 trainees. Stratified random sampling was used in sampling out the VTCs across Trans-Nzoia County where 15 VTCs were sampled. The sample size had 464 respondents; 1 VTC director, 15 head of VTCs, 108 trainers and 340 trainees. Purposive sampling was used to sample VTC heads & director while simple random sampling was used to obtain trainers and trainees. Questionnaires and interview guide was used to collect data. The validity of the research instruments was ascertained through expert judgment. The reliability of the research instruments was determined using the test- retest method. The instruments produced reliability coefficient of 0.82 hence the tools were considered reliable.

Results: Quantitative data was analyzed using inferential statistics; PPMC at $\alpha = 0.05$ and simple regression analysis was used to test the hypothesis. The Pearson product moment correlation index obtained on the relationship between Classrooms and Access to TVET was the highest ($r = 0.983$, $p < 0.0001$) at $\alpha = 0.05$). However, Staff quarters ($r = -0.047$, $p = 0.437$) at $\alpha = 0.05$ did not correlate with access to TVET. The coefficient of determination R^2 value was 0.791 for regression analysis. This showed that 79.1 per cent of the dependent variable can be predicted by the independent variable. The F-statistics produced ($F = 785.056$) was significant at 5 per cent level ($p < 0.0001$), thus confirming that at least one of the predictors was useful for predicting access to TVET.

Conclusion: The study found out that the availability of infrastructure in VTCs was inadequate. The study recommends that infrastructural facilities be addressed so as to increase access to TVET. These findings will assist the County Government, Ministry of Education and donors on priority areas of funding to increase access to TVET.

Keywords: Adequacy, Infrastructural facilities, Access, TVET

1. Introduction

1.1. Background

Technical and Vocational Education and Training (TVET) refers to a range of learning experiences which are relevant to the world of work and may take place in a variety of learning contexts including education and training institutions and workplaces. The word 'TVET' describes; Vocational Education, Technical Education, Occupational Education, Workplace Education, Career and Technical Education (CTE), Apprenticeship training, Entrepreneurship Education etc.' (UNESCO, 2017). The core role of TVET is developing professional skills and scientific principles in youth to prepare them for work; both formal and self-employment (Billet, 2011). To promote self-employment, TVETs curricula usually include

entrepreneurship, agricultural science, home economics, hospitality and tourism related courses for social reproduction and the transformation of vocational practices (Maclean & Wilson, 2009).

Vocational education and training (VET) are considered as the best solution to improve the opportunities of youths who have limited resources, skills or motivation which enables them to continue pursuing higher education (Lerman, 2018). It is against this background that a number of African nations have mounted various TVET reforms since the 1990's. This has led to formulation of policies that seek to address the social economic challenges faced by various nations. One major concern of policy makers is to ensure a TVET system that is relevant and accessible while addressing issues of quality (Konayuma, 2008).

Accessibility which can be analyzed by examining the enrolment trends is one of the major concerns of most countries as revealed by a study conducted by Palmer (2007). Out of the ten countries studied by Palmer (2007:23), Rwanda has the highest enrolment in TVET at the secondary level (35%) while West Asia (1.2%) had little room for TVET at the post primary school level. Africa lags behind the rest of the world in TVET and still it continues to pay little attention to technical education and technological research.

Kenyan isn't an exception as far as low enrolment to TVET is concerned. Kenyan education system has for a long time emphasized on formal education, paying little attention to imparting other skills that would not only transform the economy but also create jobs. Substantial enrolment to TVET is key to achieving Vision 2030 which requires skills and competencies. The Kenya Vision 2030 Second Medium Term Plan (MTP) 2013 to 2017 aimed at equipping youth with required skills, funds and wealth creating opportunities. However, the National Education Sector Plan (NESP, 2013-2018) revealed that only 10% of the youths were enrolled in TVETs. This is worrying because out of the estimated 480,000 youth who complete secondary school every year, it is only 30% who qualify for university education (NESP, 2013-2018). This presents great danger to the nation as youth who are idle end up engaging themselves activities that are illegal or end up working as casual laborers with no skills leading high levels of poverty.

The implementation of the 'Big Four' agenda also once it commences will result to a huge demand for technical skills in manufacturing and construction. A recent study by the National Construction Authority (NCA) revealed that Kenya's shortage of skilled masons, electricians, plumbers, painters and other construction workers is holding back projects at a time when the country needs to put up more houses and infrastructure. This means that there is a serious skills gap in the Country. There is need for the government and the industry to develop centres to supply relevant skills linked to specific sectors. This gap can only be filled with personnel enrolled and trained by TVET institutions.

Additionally, Kenya National Bureau of Statistics (KNBS) data also indicates that enrollment in TVET doubled from 127,691 in 2012 to 275,139 in 2017. These figures suggest that there are still many students who after secondary school do not get enrolled to any institution. The Kenya Universities and Colleges Central Placement Service data for the 2020/2021 academic cycle likewise indicates that there is still low uptake of TVET courses despite the ongoing infrastructural expansion and investment in TVET institutions. For example, the declared capacity in the TVET institutions in this 2020/2021 cycle was 276,163 students but only 88,724 applicants were placed, translating to 32% of the capacity (KUCCPS, 2020).

1.2. Statement of the Problem

In 2020, Official government figures showed that more than 130 TVETs across the country have no single students enrolled despite the government putting billions of shillings to infrastructural facilities in VTCs so as to boost technical training in the country. On addition, inquiry report by the Ministry of Education department of Technical and Vocational Education found that a total of 133 institutions had no student enrolled in both technical and business courses offered in various VTCs despite of the established infrastructural facilities in these institutions.

Buildings, classrooms, laboratories, and equipment- education infrastructure - are crucial elements of learning environments in learning institutions. There is strong evidence that high-quality infrastructure facilitates better instruction, improves student outcomes, and reduces dropout rates, increases access among other benefits (Teixeira et al, 2017). The success of a training institution in producing trainees who are equipped with relevant skills for the world of work is largely dependent on the availability of training facilities and the basic infrastructure in the institution (Ronoh et al, 2014).

Research conducted in Kiambu sub-County by Kiplagat, Ferej, & Kafu (2017) also observed that most youth polytechnics lack proper training, poor physical facilities and equipment which are inadequate and are obsolete or not working to cater for all the students. Quality facilities and equipment are necessary to the provision of quality TVET and also to improve the participation of trainees. This study does not place emphasis on the infrastructural facilities but only considers equipment necessary. The current study helps us understand the relationship between availability of infrastructural facilities and access to Technical, Vocational Education and Training in Trans-Nzoia County, Kenya.

1.3. The Study Objective

To determine the influence of adequacy and availability of infrastructural facilities on access to TVET in Trans-Nzoia County, Kenya.

2. Material and Methods

2.1. Research Design

The study adopted The Production Function Theory which suggests that an increase in access to TVET is dependent on the inputs. Investment in infrastructure in TVETs will lead to increased access to TVET

2.2. Target Population

The study was conducted in Trans-Nzoia County which has a total of 28 public vocational training centres. The study targeted a population of 3121; among them was the Director of Vocational Training, 28 head of Vocational Training Centres, 161 trainers and 2931 trainees. The participants were expected to give data of interest for this study based on their experience on technical and vocational Education and training.

2.3. Sampling Procedure and Sample Size

The study adopted Stratified random sampling which placed the VTCs into five strata based on the sub-county where they are located. This technique was the most suitable since Trans-Nzoia is an extensive county. The use of stratified sampling also ensured that a representative sample is obtained. Simple random sampling was then be used to select 3 VTCs from Trans-Nzoia East, 4 VTCs from Trans-Nzoia West, 4 VTCs from Kiminini, 2 VTCs from Kwana and 2 VTCs from Endebess Sub-County. The sampled VTCs represented slightly above fifty percent of the total number of institutions. The use of simple random sampling eliminated bias and allowed sampling error to be easily estimated. Fifty percent representation was considered to be representative of the entire County TVET institutions. Purposive sampling was used in sampling 15 center managers from the sampled VTC and one VTC director. The study Adopted simple random sampling in selecting 108 trainers and 340 trainees from the 15 VTCs. The formula for calculating the sample size by Kothari (2008) was used to sample out 340 trainees and 108 trainers as shown in the calculations below.

$$n = \frac{X^2 * N * P * (1 - P)}{(ME^2 * (N - 1)) + (X^2 * P * (1 - P))}$$

Where :

n = sample size

X^2 = Chi – square for the specified confidence level at 1 degree of freedom

N = Population Size

P = population proportion (.50 in this table)

ME = desired Margin of Error (expressed as a proportion)

$$n = \frac{(3.84) * 2931 * 0.5 * (1 - 0.5)}{(0.05^2 * (2931 - 1)) + ((3.84) * 0.5 * (1 - 0.5))}$$

n = 339.62 hence n≈340 (for trainees)

n≈340 (sample size for trainees)

Sample Group	Population	Sample Size	Percentage
VTC Director	1	1	100.0
Principals	28	15	50.1
Trainers	161	108	67.0
Trainees	2931	340	11.6
Total	3121	463	14.8

Table 1: Sample Size
Source: Field Data (2021)

2.4. Research Tool

This study used questionnaires and interview guide. Questionnaires were administered to Center Managers, trainers and trainees. On the other hand, the interview was conducted on the TVET County Director. These tools provided critical information that enabled the determination of influence of infrastructural facilities on access to TVET to be analyzed.

2.5. Data Analysis

The study yielded both quantitative and qualitative data. Quantitative approach used Descriptive, correlation and inferential statistics for data analysis. Simple regression analysis and One way ANOVA was used in hypotheses testing. Data from questionnaires was first coded and analyzed using Statistical Package for Social Sciences (SPSS Version 20.0). The processed data was summarized using tables and figures and presented in frequencies and percentages. On the other hand, Qualitative data generated from interview schedules was organized and presented in accordance with the research objectives.

3. Result and Discussion

3.1. Response Rate

A total of 463 questionnaires were distributed to the targeted participants as follows; 1 to the VTC County Director, 15 to the Head of VTCs (Centre Managers), 108 to VTC trainers and 340 to trainees. A total 375 questionnaires were returned. Table 2 shows the number of questionnaires given out to each category of respondents and the number of questionnaires that were returned.

Respondents	Questionnaires Dispatched	Questionnaires Returned	Response Rate%
Head of institutions	15	12	80.0
Trainers	108	90	83.3
Trainees	340	272	80.0
Total	463	374	80.7

Table 2: Response Return Rate
Source: Field Data (2021)

Table 2 shows that 374 questionnaires were successfully completed and returned. This translated to a response rate of 80.7%. Mugenda & Mugenda (2002) suggest that a response rate of 50% is adequate, 60% is good and 70% and above very good for a descriptive survey study. The response rate obtained was therefore considered reliable for the study. The researcher thus proceeded to analyze and interpret the data.

3.2. Background Information of the Respondents

Background information of the respondents for which data was collected included gender, age, number of years in service, department and highest level of education for the VTC director, Head of VTCs and trainers. Background information trainees who participated in the study included gender, age and religion. Additionally, socio-economic background information for trainees was also collected. Background information assisted in understanding the background characteristics of the respondents. The findings are presented in tables and figure that follow.

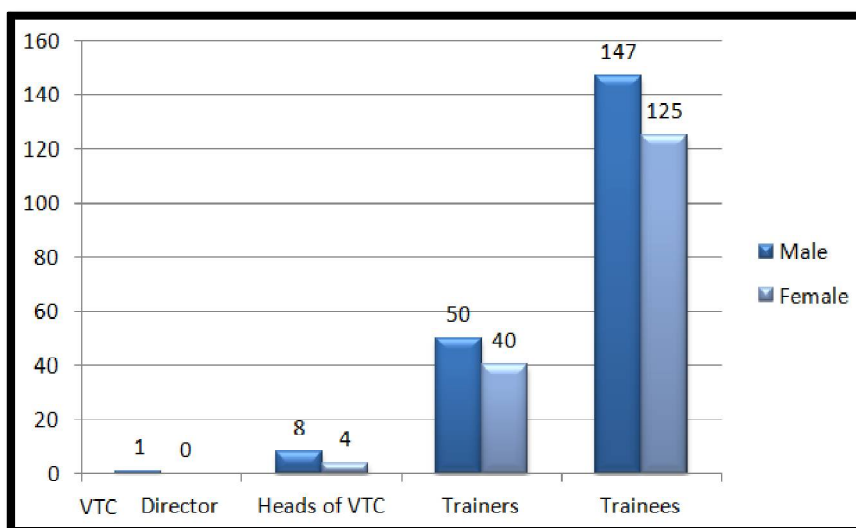


Figure 1: Distribution TVET Trainee According to Sex

According to the findings presented in Figure 1, the VTC director who participated in the study was male, out of the 12 Heads of VTC who took part in the study, 8 were male. There were 90 trainers who participated in the study, 50 (55.6%) of the trainers were male while 40 (44.4%) of the trainers were female. 272 of the respondents were VTC trainees, out of which 147 (54.0%) were male and 125 (46.0%) were female.

3.3. Distribution of TVET Trainees, Trainers and Head of VTCs based on Age

This section presents the age of the respondents who participated in the study. Table 3 presents the age of trainees.

Variable		Frequency	Percent
Age bracket	15-18yrs	117	42.9
	19-21yrs	60	22.2
	22-24yrs	54	20.0
	25 yrs and above	41	14.9
	Total	272	100

Table 3: Distribution of TVET Trainee based on Age
Source: Field Data (2021)

The findings in Table 3 show that majority of the TVET trainees were aged between 15 and 18 years (n=117, 42.9%), which could imply that these cohort of TVET trainees are the ones who failed to proceed to secondary school even with emphasis on 100% transition. This informs policy implementors to make a follow-up on 100% transition policy. A total of 41 (14.9%) of the respondents are from age 25 years and above. Again, TVET education is flexible as anyone can join in any time. This is according to ministry of education task force on the re-alignment of the education sector to the

constitution of Kenya 2010 towards a globally competitive quality education for sustainable development (2012) report. Further, 83 (22.2%) respondents were aged between 19 and 21 years while 75 (20.0%) respondents were aged between 22 and 24 years

Variable		Frequency	Percent
Age bracket of Trainers	Below 30 years	6	2.3
	31-40 years	48	47.2
	41-50 years	34	33.4
	51-60 years	12	11.7
	60 years and above	1	1.4
	Not Indicated	4	4.0
	Total	101	100

Table 4: Distribution of TVET Trainers based on Age
Source: Field Data (2021)

Table 4 presents data on distribution of trainers based the ages. Majority of the trainer respondents (48) 47.2% were 31-40 years old, 34 (33.4%) were aged 41-50 years, 12 (11.7%) were between 51-60 years while only 6 (2.3%) were below 30 years. There was only one trainer who indicated to be 60 years and above. It was also noted that 4 respondents did not indicate their age bracket.

Variable		Frequency	Percent
Age bracket of Trainers	Below 30 years	0	0
	31-40 years	7	58.3
	41-50 years	4	33.4
	51-60 years	1	8.3
	60 years and above	0	0
	Total	12	100

Table 5: Distribution of TVET Head of VTCs based on Age
Source: Field Data (2021)

Table 5 presents data on distribution of head of VTCs based their ages. Most of the respondents (7) 58.3% were 31-40 years old, 4 (33.4%) were aged 41-50 years, and 1 (8.3%) was between 51-60 years. None of the heads of the VTCs was below 30 years and above 60 years. These findings indicate all the head of institutions were both energetic and experienced.

3.4. Descriptive Statistics on Perception of Adequacy of Infrastructural Facilities in Vocational Training Centres

The study sought to determine the views of head of VTCs on availability of infrastructural facilities in VTCs in Trans-Nzoia County, Kenya. Trainees, trainers and head of VTCs were asked to rate the statements on the availability and adequacy of infrastructural facilities in VTCs

The result is presented in Table 6

Factors	SA 1	A 2	UD 3	D 4	SD 5	Mean
Adequate Classrooms affect access to TVETs	269 (72.0%)	65 (17.5%)	8 (2.2%)	16 (4.4%)	3 (0.7%)	1.3
Adequate Workshops affect access to TVETs	139 (37.1%)	120 (32.0%)	18 (4.7%)	58 (15.6%)	36 (9.5%)	2.1
Modern Toilets affect access to TVETs	143 (8.2%)	131 (34.9%)	36 (9.5%)	41 (10.9%)	18 (4.7%)	2.1
Adequate Laboratories affect access to TVETs	31 (8.4%)	84 (22.5%)	98 (26.2%)	92 (24.7%)	62 (16.7%)	3.2
Boarding facilities are adequate	21 (5.5%)	61 (16.4%)	28 (7.6%)	113 (30.2%)	147 (39.3%)	3.9
Adequate Staff quotas affect access to TVETs	3 (0.7%)	11 (2.9%)	42 (11.3%)	75 (20.0%)	239 (64.0%)	4.7
Average Likert score			2.9			

Table 6: Response on Adequacy of Infrastructural Facilities in Vocational Training Centres
Key: SA-Strongly Agree, A-Agree, UD- Undecided, D-Disagree SD- Strongly Disagree

Results indicated in Table 6 shows that according to trainees, trainers and head of VTCs the average Likert score for infrastructure available was 2.9. This is above the criterion 2.5, indicating that there is lack of availability of the adequate infrastructure in the VTCs. Eighty four percent of the respondents disagreed that VTCs have adequate Staff quarters while 69.5 % of the respondents disagreed that TVET have boarding facilities. 41.4 % of the respondents

disagreed that VTCs have adequate Laboratory facilities while 30.9 % agreed that the laboratory facilities were adequate. However, 89.5 % of the respondents agreed that there were enough Classrooms facilities, 67.1% agreed that workshops were adequate Workshops and 73.1% agreed that the VTCs had Modern Toilets.

3.5. Comparison between the Perception of Trainers and Trainees on Adequacy of infrastructure in VTCs in Trans-Nzoia County

The study compared the perception of trainers and trainees on adequacy of infrastructure in VTCs in Trans-Nzoia County.

Factors	Trainer	Trainee	Mean
Adequate Classrooms affect access to TVETs	1.4	1.2	1.3
Adequate Workshops affect access to TVETs	2.6	1.6	2.1
Modern Toilets affect access to TVETs	2.4	1.8	2.1
Adequate Laboratories affect access to TVETs	3.7	2.7	3.2
Boarding facilities are adequate	4.1	3.7	3.9
Adequate Staff quotas affect access to TVETs	4.5	4.9	4.7
Average Likert mean	3.1	2.7	2.9

Table 7: Comparison between the Perception of Trainers and Trainees Likert Means on Adequacy of Infrastructure in Vtcs in Trans-Nzoia County

The statistics in Table 7 shows that both trainers and trainees had similar perception (likert mean of 3.1 and 2.7 respectively) on adequacy of infrastructure in VTCs in Trans-Nzoia County. However, trainers perceive those classrooms and modern toilet are adequate, a criterion of 1.4 and 2.4 respectively compared to the trainee's perception with a criterion of 1.2 and 1.8 respectively. Based on the response from the trainers, the laboratories and boarding facilities are inadequate a criterion of 3.7 and 4.1 respectively. Trainees perceive more than trainers that the staff quarters with a criterion of 4.9 compared to 4.5 by trainers.

3.6. Correlation Matrix for the Availability Adequacy of Infrastructural Facilities and Access to TVET in Trans-Nzoia County

The null hypothesis stated that:

- Ho1: There is no statistically significant relationship between availability infrastructural facilities and access to TVET in Trans-Nzoia County

To test the hypothesis, a correlation analysis for the adequacy of the listed infrastructural facilities and access to TVET was computed at 95% confidence level. The results are in table 4.13

		Classrooms	Workshop	Lab	Access	Boarding	Modern Toilet	Staff Quarters
Classrooms	Pearson Correlation	1						
	Sig. (2-tailed)							
Workshop	Pearson Correlation	.847**	1					
	Sig. (2-tailed)	.000						
Lab	Pearson Correlation	.637**	.866**	1				
	Sig. (2-tailed)	.000	.000					
Access	Pearson Correlation	.983**	.819**	.602**	1			
	Sig. (2-tailed)	.000	.000	.000				
Boarding	Pearson Correlation	1.000**	.847**	.637**	.983**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
Modern Toilet	Pearson Correlation	.081	.022	-.036	-.114	.081	1	
	Sig. (2-tailed)	.185	.721	.555	.060	.185		
Staff quarters	Pearson Correlation	.183**	.860**	.871**	-.047	.183**	-.300**	1
	Sig. (2-tailed)	.002	.000	.000	.437	.002	.000	
**. Correlation is significant at the 0.05 level (2-tailed). n= 361								

Table 8: Correlation Analysis for the Adequacy of Infrastructural Facilities and Access to TVET in Trans-Nzoia County
Source: Field Data (2021)

According to Table 8 the Pearson product moment correlation index obtained on the relationship between Classrooms and Access to TVET is $r = 0.983$. It is positive with $p\text{-value} = 0.000$ which is less than $\alpha = 0.05$ implying that

positively correlates with access to TVETs. The second variable workshop correlated with access to TVETs ($r = 0.819$, $p < 0.0001$) at $\alpha = 0.05$, the third variable of relationship between Laboratory facilities correlated with access to TVETs ($r = 0.602$, $p < 0.0001$) at $\alpha = 0.05$, the fourth variable of relationship between boarding facilities correlated with access to TVETs ($r = 0.863$, $p < 0.0001$) at $\alpha = 0.05$. The variable of classroom is ($r = 0.983$) and boarding facilities had the highest correlation ($r = 0.863$). However, the variables; Modern Toilet ($r = -0.411$, $p = 0.6$) at $\alpha = 0.05$ and Staff quarters ($r = -0.047$, $p = 0.437$) at $\alpha = 0.05$ did not correlate with access to TVET.

This correlation analysis therefore implies that the availability and adequacy of infrastructure affects access to TVET in Trans Nzoia, hence the study rejects the null hypothesis 'There is no statistically significant relationship between availability infrastructural facilities and access to TVET in Trans-Nzoia County' TVET centers should invest on infrastructures to attract trainees. A study by Ronoh et al (2014) on The Critical Factors Affecting Enrolment in Kenyan Youth Polytechnics (YP) found out that the average enrolment to youth polytechnics was 28%. On further analysis Ronoh et al (2014) indicated that (90.3%) of student – respondents agreed that the availability of training facilities was important when deciding to enroll in Vocational Training Centers.

Further, simple regression analysis was done for the relationship between availability of infrastructure and access to TVET was computed for the three infrastructural facilities that showed a positive correlation. The results were presented in Table 9 Regression analyses are a set of techniques that can enable us to assess the ability of an independent variable(s) to predict the dependent variable(s).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845 ^a	.792	.891	.21080
a. Predictors: (Constant), class rooms, laboratories, boarding facilities, workshop				
b. Dependent Variable: access to TVET				

Table 9: Model Summary^b

Source: Field Data (2021)

From Table 9, it is clear that the R value was .845 showing a positive relationship. R is the correlation between the observed and predicted values of the dependent variable. The values of R range from -1 to 1 (Wong and Hiew, 2005). The absolute value of R indicates the strength, with larger absolute values indicating stronger relationships. Thus, the R value at .845 shows a stronger relationship between observed and predicted values in a positive direction. The coefficient of determination R² value was 0.791. This shows that 79.1 per cent of the dependent variable (Access to technical and vocational education and training) was explained and predicted by independent variables (class rooms, laboratories, boarding facilities, workshop). On further analysis of variance, the researcher found the results presented in Table 10

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	131.321	3	43.774	785.056	.000 ^a
	Residual	15.864	357	.044		
	Total	147.186	360			
a. Predictors: (Constant), class rooms, laboratories, boarding facilities, workshop						
b. Dependent Variable: access to TVET						

Table 10: ANOVA^b

Source: Field Data (2021)

The F-statistics produced ($F = 785.056$) was significant at 5 per cent level ($p < 0.0001$), thus confirming the fitness of the model and therefore, there is statistically significant relationship between infrastructure facilities and access to TVET.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.395	.044		9.015	.000
	Classrooms	.425	.125	.356	7.253	.042
	Boarding facilities	.602	.028	.758	21.625	.000
	Workshop	.140	.027	.285	5.283	.000
	Laboratories	.054	.021	-.096	-2.575	.010
a. Predictors: (Constant), classrooms, laboratories, boarding facilities, workshop						
b. Dependent Variable: access to TVET						

Table 11: Coefficients^a

Source: Field Data (2021)

The t-value of constant produced ($t = 9.015$) was significant at (Sig. $F < 0.001$), thus confirming the fitness of the model. Therefore, there is statistically significant relationship between infrastructure facilities and access to technical and vocational education and training. From the Regression Model and Based on table 4.16, the equation for the regression line is:

$$Y(\text{Access to TVET}) = \alpha + \beta_1 (\text{class rooms}) + \beta_2 (\text{laboratories}) + \beta_3 (\text{boarding facilities}) + \beta_4 (\text{workshop}) + e$$

Thus;

$$Y (\text{Access to TVET}) = 0.395 + 0.425 (\text{class rooms}) + 0.602 (\text{laboratories}) + 0.140 (\text{boarding facilities}) + 0.054 (\text{workshop}) + e$$

The null hypothesis stated that

- Ho1: There is no statistically significant relationship between availability infrastructural facilities and access to TVET in Trans-Nzoia County

On further testing of the hypothesis at 0.05 significant levels, the regression model was created at 95% confidence level. The F-statistics produced ($F = 785.056$) was significant at 5 per cent level ($p < 0.0001$), thus confirming that at least one of the predictors was useful for predicting access to TVET, therefore, there is statistically significant relationship between infrastructure and access to TVETs. The study rejected the null hypothesis, indeed the availability of infrastructure affected access to TVETs.

4. Conclusion

From the above findings, the study concludes that availability of adequate infrastructure directly affects access to Technical and Vocational Education and Training in Trans Nzoia County. The study found out that the availability of infrastructure in Vocational Training Centres was inadequate.

The study recommends a refocus by the ministry of Education and the County Governments on funding for requisite infrastructure in TVET institutions in order to boost student access. This will accelerate specific skill development and make many youths self-reliant and expand their role in national development and the eventual overall industrialization of Kenya. Further research needs to be carried out to establish other intrinsic family factors hindering youths from access to TVET.

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