INSTITUTIONAL FACTORS INFLUENCING ACCESS TO COUNTY VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN MAKUENI COUNTY, KENYA

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DECLARATION

This thesis is my original work and has not been presented for award of a degree in any other university.

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I dedicate this thesis to my loving children Trizer Mutungwa, Philip Kyalo, Tracy Mutheu as well as my dear wife Beatrice Mbithe.

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
ASAL	Arid and Semi-arid Lands
CBET	Competency-Based Education and Training
CBT	Competency - Based Training
CBC	Competency - Based Curriculum
CVETIs	County Vocational Education and Training Institutions
ECG	Education and Career Guidance
GDP	Gross Domestic Product
GEM	Global Education Monitoring Report
HCT	Human Capital Theory
HELB	Higher Education Loan Board
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KNQF	Kenya National Qualifications Framework
LMIS	Labour Market Information Systems
NESP	National Education Sector Plan
NACOSTI	National Commission for Science, Technology and Innovation
NITA	National Industrial Training Authority
PPPs	Public-Private Partnerships
SDGs	Sustainable Development Goals
SPSS	Statistical Package for Social Science

TOTs	Trainer of Trainers
TVET	Technical and Vocational Education and Training
TVETA	Technical and Vocational Education and Training Authority
UNFPA	United Nations Population Fund
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNEVOC	International Centre for Technical and Vocational Education
VET	Vocational Education and Training

ABSTRACT

The purpose of this study was to investigate the influence of institutional factors on access to County Vocational Education and Training institutions in Makueni County, Kenya. The study was informed by the existence of a large number of youths in the County who have not enrolled in County Vocational Education and Training Institutions (CVETIs). This denies them an opportunity to acquire relevant employable skills, which contribute to significant dependency ratio, high unemployment cases, engagement in drug and substance abuse and other social-evils. They are vulnerable and poorest in a total population of (26%). The youths are left with no option but to destroy their environment to survive. Technical Vocational Education and Training (TVET) remains the first paramount step from being unemployable to employability. The study was based on four specific objectives; to find out the extent to which relevance of training courses, adequacy of training facilities and equipment, career guidance and adequacy of competent instructors influences access to CVETIs. Adopting the Human Capital Theory (HCT), the study employed descriptive research design. The study targeted 28 registered Public Vocational institutions in Makueni County. Stratified simple random sampling and purposive sampling techniques were used to obtain a random sample of 21 managers, 87 instructors and 316 trainees drawn from 21 randomly selected Vocational institutions. Questionnaires, interview schedule and an observation check list were used to collect data. The instruments gave both qualitative and quantitative data. Reliability of the research tools was determined by computing the Cronbach's alpha reliability coefficient using Statistical Package for Social Science (SPSS). A coefficient of (0.772 to 0.92) was obtained. The data was cleaned, coded, processed and analyzed. Quantitative analysis used descriptive and inferential statistics computed using a computer programme (SPSS version 23 computer package). Descriptive statistics were generated and used in describing and discussing the research findings. Statistical tests were done using a T-test and one-way analysis of variance (ANOVA) at 95% Confidence Interval of the difference (α=0.05). The finding of the study revealed that, vocational training courses have not kept the phase of advancing technology in the industry and they less meet the labour market requirements, hence not attracted prospective trainees who meet the minimum admission requirements. The training facilities and equipment in most vocational institutes are inadequate, technologically irrelevant and not meeting the standards of the industry. Most of the vocational institutions have no organized and functional career guidance departments to provide in-depth information on individual courses which is an ingredient for successful career progression. The instructors were found to be inadequate and missed industrial experiences, which are an important ingredient for knowledge and skills transfer. The study recommends that; the institutions should provide technologically relevant training equipment and establish functional career guidance departments. Reviewing the vocational education and training curriculum to create a sustainable linkages and collaboration with the private sector, employers and the labour market is necessary. Refresher training programme and industrial attachment would enrich the instructors' training capacities.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The process of career decision-making is both a complex and an involving moment in one's life especially for the adolescent. It is a critical decision that basic education graduates need to make at the end of their compulsory basic education to decide between an academic or Vocational Education and Training (VET) pathway. To make an informed decision on career choice, the student should be carefully guided with the changing nature of jobs and work place requirements in mind. Making an insight career decision is an important undertaking that creates an opportunity to acquire quality training and relevant skills, knowledge and other attributes that enables a graduate to participate competitively in the knowledge economy and remain competitive in the 21st century labour market (Carnevale, Smith, & Strohl, 2013).

This was supported by a study carried out in the republic of Tajikistan to examine the factors influencing students' decisions to enroll in Initial Vocational Education and Training (IVET) lyceums. The researcher administered a paper-based survey to collect data from a stratified random sample of n = 541 students in IVET lyceums. The study findings indicates that, a well thought education and training pathway based on the student's abilities and interest has a significant impact on one's career success, career progression, job satisfaction and efficient service delivery (Farid, 2019). Quality and affordable Technical and Vocational Education and Training (TVET) is one of the United Nations Sustainable Development agenda

items for ensuring equal access to education and training for all by the year 2030 (United Nations, 2015).This implies that, the youthful population across the world should acquire quality and relevant employable skills, for employment in both formal and informal sectors, create job opportunities for others and promote entrepreneurial culture. In this regard, an all-inclusive education and training is a right regardless of gender, age, religion, disability or ethnic background, every person has an equal opportunity to education and training as outlined by various Sustainable Development objectives (United Nations, 2015). Nevertheless, as the fundamental right to accessing education and training is being recognized within educational reforms frameworks across the world, young people and adults still face difficulties in accessing TVET programmes largely associated with discriminatory career guidance practices (Garcia, Toledo, & Rodrizguez, 2020).

The significant recognition of the importance of TVET in international discourse and policies is yet to shape up the image of TVET when compared with the academic education track. The challenge is experienced more in the third world Countries where it has been observed that the enrolment in TVET has not improved significantly. Many basic education graduates continue to prefer the academic education track as their first choice. This has made TVET to have a low image and therefore making it a universal concern (UNESCO-UNEVOC, 2018). Due to negative public image of VET, enrollment in TVET is major concern for educational stakeholders and the education sector at large. According to Farid (2019), some institutional related factors have a direct contribution to the low

enrolment witnessed in VET. Some of these factors include inadequate VET instructors with inadequate industrial experience, insufficient training facilities and skewed career guidance programs to learners while at the basic education level of schooling. Globally, TVET has significantly influenced the development of knowledge, skills, competencies and expertise necessary for development initiatives which are critical for sustainable societies and economies. To this end, the quality of skill development process determines the quality of the generated human capital in terms of knowledge, skills and appropriate attitudes (UNESCO-UNEVOC, 2020).

Basically, the acquisition and effective application of these attributes results to sustainable economic development, enhances social mobility, national cohesion and development. The skills and knowledge that youthful population acquire must therefore be relevant to the current economy, meet their needs and aspirations. Consequently, it is important to ensure that, this training sub-sector undergoes continuous technological development to cope with current global trends, enhance equity in access and develop resilient training courses so as to equip the fast-growing youth population with modern industrial skills for economic and social progress (Otero, 2019). A report by UNFPA (2014), on the future of sustainable development with the youth at the centre indicated that, a skilled youth, creative and innovative may have innovative solutions to the social problems facing most of the third world countries and fresh ideas for their economic development and resilient environmental changes (Gupta, Engelman, Levy, & Luchsinger, 2014).

This implies that the soft skills and technical skills the young people acquire must be relevant to the current economy to enable the country to realize demographic dividend. TVET sector has been considered to be the foundation for any successful economy since it boosts the value of the products produced in an economy as indicated in the Global Education Report 2016 (UNESCO, 2016). A study sponsored Management & Training Corporation (MTC) on the principles and strategies of a successful TVET programmes found that, an effective TVET sector in any country should be based on quality labour market information, industry demands and the employees' needs mostly in key trades and occupations (MacDonald, Nink, & Duggan, 2014). The partnership between the employers and TVET sector whereby the employers design the curricula and courses of study which meets labour market requirements addresses the issues of mismatches between the technical education system outcomes and the job market requirements.

Globally, VET has produced a significant mass of well qualified human capital in the history of economic development in the industrialized countries where strong labour demand-driven approach has been effectively used to design and implement training programmes that provide required skilled workers. Basically, TVET has enabled the production of goods and services that meet world market standards hence regarded as a key development strategy by international agencies (Chun & Kyu, 2012). With the adoption of TVET reforms in South Korea, her economic development since 1950s has been attributed to the establishment of skill development programme focusing on industrial trades and enhancing access to

quality training opportunities to improve individual's productivity (Chun & Kyu, 2012). This was achieved through establishment of training infrastructure, provision of quality training environment, capacity building and ensuring adequate linkage between labour market needs and training programmes by projecting future skills requirements. The implementation resulted to modernization and expansion of TVET institutions to address skill gap in the job and employment market, connected the industry and the sustainable development needs with TVET programmes, improved TVET institutions through teacher training, qualification and curricula reform and provision of pedagogical resources and equipment. The public private partnership (PPP), improved the perception and attractiveness of TVET pathways through appropriate career guidance and counselling (Chun & Kyu, 2012).

Similarly, Vietnam which has addressed most problems facing TVET sector established policies which encouraged industry participation in TVET which enhanced innovative economy through technological innovation. The TVET policy in Vietnam requires trainers to have the ability to prepare training curricula based on the industrial standards in order to produce a team of well-trained human capital (Asian Development Bank, 2013). The implementation of Vietnam TVET policies enhanced access to vocational training and promoted relevance of training programmes. China's advancement in TVET sector has been achieved through ensuring regular training of trainers whose minimum qualification is a degree in the vocation they train to upgrade their training capabilities and abilities to meet the

dynamic industrial needs. The TVET policy based on industrial requirements subjects the trainers to one month practical refresher course in the industry which enhances their career progression in the field of specialization every year or after every two years (Mehrotra, 2015). This keeps the trainers informed about the evolving labour market requirements so as to address future skill gap requirements. Career guidance in China is a primary means for effective integration of youth population in the world of work through guided career paths that enables them to purse vocational education. The China policy framework, Modern Vocational Education System Construction (2014-2020), creates opportunities for lifelong learning making vocational training more attractive which enhances career progression with open pathways for higher education and training. This has contributed to the production of quality TVET graduates whose capacities make them more competitive locally and internationally to promote the county's productivity which has led to increase in her real income and improved standards of living (People's Republic of China, 2018).

The socio-economic advancement of Taiwan, Singapore, and Hong Kong, is attributed to the strategic mechanisms of linking the world of skill development and the world of work. This made training and skill development a priority to meet their economic aspirations and a close alignment between the vocational training system and labour markets, increased access, equity and quality to TVET programmes and the ability to maintain the links through time was considered essential (Gopinathan, 2011). Basically, Singapore's TVET sector offers career-

oriented education and training focusing on remaining relevant and responsive to industrial manpower demand which promotes public perception on importance and value of TVET. The Government of Singapore has highly invested in TVET to provide quality education and training which address the training needs of her population and ensuring that the acquired skills remain relevant to the job market (ENESCO-UNEVOC, 2020). Its significant achievement in skills development has been necessitated by the equal participation of both the academia and the industry. The skills development is driven by various TVET strategies and policy documents, which include; Skills-future Singapore Agency Act 2016 (No 24 of 2016), Workforce Singapore Agency Act 2003, Industry Transformation Maps 2016. The professional trainers have industrial experience and constantly update themselves with the advancing industry requirements through industrial attachment.

The strategies in VET have resulted to high enrolment in post-secondary non-tertiary vocational education to 78.1% in 2017. Access to VET at different levels recorded an increase in youth population (15 years and above) literacy rates to 97.3 % in 2018. As a result, the unemployment rate was 2.1% in 2018 (ENESCO-UNEVOC, 2020). High demand for VET is a milestone achievement to the Singapore Government, which led to a multi-sectoral participation in the development of their education and training, where an Education and Career Guidance (ECG) is integrated in their general education curriculum at the early levels of schooling. Officially, ECG helps the Singaporean's young population to understand themselves better, make an informed choice on career options and

establish personal goals and how to achieve their future aspirations. The young people are guided to develop self-awareness in various areas of one's interest, abilities, values and career aspirations (Ministry of Education Singapore, 2016). The holistic career guidance has enabled the Singaporean's youthful population and adults to navigate the world of work confidently and to develop the capacities to manage career transitions. In Australia, VET is directly linked to employment where the trainees are required to undertake apprenticeship throughout their training. This enables graduates to get employment opportunities immediately. The training is highly demand driven designed to meet both the immediate and long-term industrial requirements (MacDonald, Nink, & Duggan, 2014).

The VET sector emphasizes on training graduates who are well equipped with employable skills with no need for on-the-job training. The industry in this case is highly involved to enhance market oriented training courses. Through collaboration and coordination, the employers are involved in determination of the training needs to meet the industrial demand gaps while keeping pace with the changing technology and the rise of new sets of training skills (MacDonald, Nink, & Duggan, 2014). It is evident that, employers' collaboration and coordination is essential for an industry driven training. In this regard, in a responsive VET sector, the employers determine the educational and training needs to address the unmet demand which is a dynamic process thus making it necessary to keep pace with the ever-changing technology. The upgrading and review of the VET packages in Australia is based on the industry skill requirements. The training courses are

regularly revised to address the needs of the industry and prospective trainees seeking qualification opportunities. Through the Australian skills Quality Authority (ASQA), the training packages have been designed to address the trainees needs (delivering training experiences and qualifications that are relevant to employers and the industry) that has resulted to the development of confidence in the Australia's training sector (UNESCO-UNEVOC, 2018). Australia VET sector by 2018 had an estimated enrolment of 4.2 million students and 4200 registered VET institutions. This large number of trainees' enrolment is attributed to the Competency-Based Training (CBT) (UNESCO-UNEVOC, 2018).

Research done by Acakpovi and Nutassey (2015), on adoption of competency-based education (CBE) in TVET institutions in Ghana, indicated that most of the vocational institutions in Africa are inadequately equipped with training facilities and equipment, the linkages with labour user institutions do not inform the curriculum development and reforms, which do not respond to the labour market needs and therefore has led to low enrolments and high levels of educated unemployed among young graduates of TVET over the years. The few graduates who get employment opportunities have to be retrained in their industry to improve their capacities and productivity (Acakpovi & Nutassey, 2015). In a study to review work-based learning programmes for young people in the Republic of Egypt, enrolment in Egypt in VET has remained low. The observed that there exists an historical vicious cycle of negative image of VET mostly by the students and their teachers. In the Egyptian society, VET is seen as a choice for those who fail to get

admissions in the academic track which has made it to remain a last option for the young people. He further it was noted that, VET and its related occupations has been positioned by the society as being of low status and worth. This has made the young people and their parents to make deliberate choice to pursue education along the general education pathways. Though the phenomenon is well documented and acknowledged, it was reported that the Government has done little to create awareness in order to change this perception (Billet, 2018). Education in Kenya is anchored on the Constitution of Kenya as a fundamental human right. This has informed policy provisions developed to address the constitutional requirements and direct national aspirations (Republic of Kenya, 2012). National aspirations and the critical role of education are articulated in the *Kenya Vision 2030*, which advocates for the link between training institutions and the job market in order to create stock of human capital with relevant skills, competencies, soft skills and attitudes essential in the work place (Republic of Kenya, 2014).

In Kenya's education system, TVET largely includes trade tests in vocational centres, artisan, craft and diploma courses in Technical Training Institutions (TTIs) as well as craft and diploma courses in national polytechnics, leading to trade tests, certificates and diplomas in various disciplines. The prospective trainees for TVET includes youths who drop out of the basic education system either at primary or secondary school levels, primary level graduate who fail to enroll at secondary school level and secondary level graduates who perform below the university admission requirements. The TVET sub-sector in Kenya, like any other Sub-

Saharan African Country has witnessed institutional related challenges that may limit training opportunities for the youth to enable them cope with the dynamic labour market requirements, industrial and technological development. Inspire of the large variety of training programmes in VET in Kenya which ranges from hairdressing to electronics and automobile repair, the place of TVET in the overall education system in Kenya is marginal in terms of enrolments. The vocational education pathway has had the negative perception of being a last option, as far as academic progression is concerned. Furthermore, it is considered only for those pupils who are unable to continue to higher education (Republic of Kenya, 2019). The training environment whose key components are; relevant training programmes, training facilities and equipment, competent trainers and career progression information are critical for labour market-oriented training.

The TVET Policy Act of 2013, provides directions on the promotion of access to VET without compromising quality and relevance of the training programmes (Gonvernment of Kenya, 2013). Its implementation and other relevant strategies within TVET drive the strategic development of relevant TVET programmes which creates a relevant training space to achieve sustainable skills development. It is evident that Kenyan youth continues to face unemployment challenges and therefore it is important to plan for them to acquire the requisite skills and knowledge relevant to economic expansion. This can only be achieved through enhancing access to TVET and providing quality and relevant training programmes. Currently, in Kenya there is a high percentage of youth population

who are legible for training in Vocational institutions as a result of mass Basic secondary education graduates whose performance is below the university entry requirements and other tertiary institutions (Ministry of Education, 2019). VET in Kenya is a devolved function of the County Government as outlined in chapter eleven (Devolved Government) of the *Constitution of Kenya (2010)* in the fourth schedule of the Constitution (Republic of Kenya, 2010). Makueni County recognizes access to VET as an important avenue for creation of a well trained workforce for the County's sustainable social economic transformation. Makueni County has rebranded the village youth polytechnics to County Vocational Education and Training Institutions (CVETIs) in an attempt to upgrade them in light of the advent of technology and align the VET with the needs of the job market (County Government of Makueni, 2016).

Most of the youths in the County have not enrolled in CVETIs denying them an opportunity to acquire employable skills. VET remains paramount to enable one make a step from being unemployable to employability. Most of them are idle. This has increased dependency on working population, led to high cases of unemployment, engagement in drugs and substance abuse and other social-evils. They are vulnerable and poorest in a total population of (26%). The youths are left with no option but to destroy their environment to survive. Access to CVETIs remains an issue of concern in Makueni County (County Government of Makueni, 2016).

Table 1.1 Enrolment in Vocational Education and Training Institutions 2015 – 2019

		2015	2016	2017	2018	2019
National	Grade D+ - E	203051	212720	376414	438914	441367
,	Enrolment	73695	77465	80,905	104,441	114,484
	Enrolment ratio	0.363	0.364	0.216	0.238	0.259
Makueni	Grade D+ - E	7,910	8,652	13,893	15,943	16,321
County	Enrolment	2,729	2,929	2,933	3,609	3,867
	Enrolment ratio	0.345	0.339	0.211	0.226	0.237
Kitui	Grade D+ - E	10,284	6,738	11,089	13,029	13,336
County	Enrolment	3,141	3,578	3,878	4,040	4,316
	Enrolment ratio	0.327	0.531	0.344	0.310	0.324

Source: Department of Education and ICT County Government of Makueni. 2019; Kenya National Bureau of Statistics 2019

Table 1.1 indicates that, the National enrolment in Vocational Education and Training Institutions (CVETIs) dropped from 36.4% in 2015 to 21.5% in 2016 despite a mass number of prospective trainees who had scored D+ and below in KCSE 2015 (Kenya National Bureau of Statistics, 2019). Makueni County vocational centres, registered an enrolment decrease from 33.9% in 2015, 21.5% in 2016 and 22.6 % in 2017 despite the County Government's efforts to establish new CVETIs which have not attracted the prospective trainees (Kenya National Bureau of Statistics, 2019). This empirical evidence as stated in Table 1.1 shows that, training courses offered by CVETIs in Makueni have not attracted most of the prospective trainees even after devolution where vocational training institutions are being revitalized by the County Governments (Kenya National Bureau of Statistics, 2015). This has raised concern and calls for an investigation to unearth the underlying issues influencing the low trainees' access to CVETIs in Makueni County.

1.2 Statement of the Problem

As the fundamental right to accessing education and training is being recognized within educational reforms frameworks across the world, young people and adults still face difficulties in accessing TVET institutions, hence making it a universal concern. This could be largely associated with discriminatory career guidance practices at the lower levels of schooling, as well as at the vocational education institutions. It has been noted that, prospective trainees continue to prefer the academic education track as their first choice, regardless of their inability to meet the minimum university and other tertiary level of education and training entry

requirements. Despite the benefits associated with TVET, Vocational Education and Training in Kenya for a long time has lacked the esteem when compared to academic path ways. Currently, the enrolment in TVET institutions has remained low both nationally and in Makueni County. The low enrolment is worrying prompting a question, what could be the cause to low enrolment. The idle unemployable youthful population has increased dependency on the working population, led to high unemployment cases, engagement in drugs and substance abuse and other social-evils which is a major development challenge. These makes the youth more vulnerable hence they are left with no option but to destroy their environment to survive, causing a continued environmental degradation.

Notably, low skills endowment has made the youth to engage in agricultural expansion activities and charcoal burning that has led to destruction of trees and soil cover leading to adversarial environmental degradation in Makueni County. Consequently, the participation in these economic activities has resulted to continued landslides causing displacement of households, loss of property, destruction of crops and loss of life is some parts of the County. Little empirical evidence exists on whether institutional factors influence enrolment in CVETIs especially in Makueni County. In view of this gap, this study investigated the contribution of institutional factors on access to CVET institutions so as to re-strengthen the practical skills, knowledge, provide a pathway to higher education and reduce wastage. TVET remains the first paramount step from being unemployable to employability.

1.3 Purpose of the Study

The purpose of this study was to investigate the influence of institutional factors on access to County Vocational Education and Training institutions in Makueni County.

1.4 Research Objectives

The study was guided by the following specific objectives.

i. To investigate the extent to which relevance of training courses influence access to County Vocational Education and Training institutions in Makueni County;
ii. To assess the extent to which adequacy of training facilities and equipment influence access to Vocational Education and Training institutions in Makueni County;
iii. To evaluate the extent to which career guidance influence access to Vocational Education and Training institutions in Makueni County;
iv. To find out the extent to which adequacy of competent instructors influence access to Vocational Education and Training institutions in Makueni County.

1.5 Null Hypotheses

In order to test the four independent variables, four null hypotheses were developed.

$H_0$1. There is no statistically significant relationship between relevance of training courses and access to Vocational Education and Training institutions in Makueni County;

$H_0$2. There is no statistically significant relationship between the adequacy of training facilities and access to Vocational Education and Training institutions in Makueni County;

$H_0$3. There is no statistically significant relationship between career guidance and access to Vocational Education and Training institutions in Makueni County;

$H_0$4. There is no statistically significant relationship between competency of instructors and access to Vocational Education and Training institutions in Makueni County.

1.6 Significance of the Study

The study's findings may be useful to civil society and other actors in education to seek for more sustainable strategies and coherent solutions to the low TVET image which has contributed to low enrolment. The study findings may be useful to the Ministry of Education to plan on the expansion of the pool of experts particularly in critical or priority trades. The study may also inform the County Governments on the need to increase the number of relevant instructors in Vocational institutions and more importantly to improve their quality for the delivery of Job ready graduates, undertake sustainable interventions to enhance the competencies of VET instructors, design a strong system to train, recruit and maintain quality instructors. The study findings may be used by TVET policy makers to establish policies that support public private partnership to link the academia with the industry for relevant training courses that meet the labour market needs, address the issues

surrounding discriminatory career guidance and enhance TVET attractiveness. The study is significant since the findings might be used by technical education planners for the allocation of VET resources to boost the quality of training and increase access to CVET institutions. The study is also significant to the Vocational institutions managers, instructors and the trainees as it has documented the challenges resulting to poor quality of training and the suggested measures to provide market-oriented training and to address low enrolment concerns.

1.7 Limitations of the Study

In this study, the researcher could not control the informant's attitudes on the data collection exercise, but the researcher assured them of anonymity and confidentiality. Respondents may not be truthful when answering survey questions. The study did not involve the prospective trainees though they are the best placed to reveal the reasons that hindered them from transiting to CVET institutions. This could create a research gap. TVET in Kenya is offered in both public and private institutions. This makes TVET a large area of research and therefore the focus on CVETIs could not account for the prospective trainees who could have enrolled in these other TVET institutions. The study used questionnaires limited to Likert scales and future studies should use more open-ended questions to generate more qualitative information and help the subjects to express their views clearly. The choice and wording of questions on a questionnaire may influence the descriptive findings.

1.8 Delimitation of the Study

The study covered the whole Makueni County focusing on the 28 registered public VET institutions that have been operational for at least six years of devolution (2014 – 2019). The study was delimited to institutional factors that influence access to CVETIs. The data collection instruments used were an interview schedule, questionnaires, document analysis, and observation check lists. The study considered the views of the Vocational institutions Managers, instructors, and trainees on the influence of institutional factors on enrolment in vocational education and training institutions.

1.9 Basic Assumptions of the Study

The study was carried out on the basis of the following assumptions:

i. The mass of prospective trainees graduating annually from the secondary school system do not enroll in the private vocational institutions or other vocational institutions outside Makueni County;
ii. The participants would participate willingly in the study and the given responses presented the actual situation about vocational education and training institutions.

1.10 Definition of Significant Terms

Access refers to enrolment in vocational education and training institutions.

Attractiveness refers to the capacity of VET institution to encourage individuals to make a deliberate choice and enroll for training course that open up their career expectations.

Competency refers to knowledge, skills, attitude, values and experiences possessed by an instructor as a result of past training in the field and work experiences.

County Vocational Education and Training Institutions refers to institutions offering training courses for artisan and certification under the governance and management of County Governments (formally known as village youth polytechnics).

Civil society refers to community groups, non-governmental organizations, charitable organizations, faith based organizations, professional associations and foundations.

Institutional factors refers to training infrastructure, instructor's competency, training courses, career guidance services, and other aspects within the vocational institutions that may influence access to CVET.

Manager refers to the administrator of a vocational training institution.

Quality training refers to the value of skills development in vocational training institutions measured by the capacity of the vocational training graduates to participate productively in the work place.

Soft skills refers to the trainee's personality traits and behaviors that may include; effective communication skills, conflict solution ability, leadership skills,

adaptability, team work, flexibility, problem solving ability which are essential ingredients for both formal and informal employment.

Transition rates refers to the number of trainees admitted to artisan course grade III of Vocational Education and Training as compared to the prospective trainees (KCSE graduates who scored grades D+ and below in the previous year).

1.11 Organization of the Study

The study report is organized into five chapters**. Chapter one** contains the introduction to the study. The subsections under this chapter include the background to the study, statement of the problem, purpose of the study, specific objectives of the study, hypotheses, significance of the study, limitations of the study, delimitations of the study, basic assumptions of the study, definition of significant terms and organization of the study. **Chapter two** consist of related literature review, covering introduction, An overview of Vocational Education and Training programmes and accessibility, training courses and access to CVETIs, adequacy of training facilities and access to CVETIs, career guidance on TVET and access to CVETIs, adequacy of competent instructors and access to CVETIs, theoretical framework and the conceptual framework of the study.

Chapter three is on research methodology covering introduction, research design, target population, sample size and sampling procedure, research instruments, validity of instruments, reliability of instruments, data collection procedure, data

analysis techniques and ethical considerations. **Chapter four** is on data analysis, presentation and discussion. The sub sections include the questionnaire return rate, demographic information of CVETI Managers, demographic information of CVETI Instructors, demographic information CVETI trainees, relevance of training courses and access to CVETIs, adequacy of training facilities and equipment and access to CVETIs, career guidance on TVET and access to CVETIs, adequacy of competent instructors and access to CVETIs**. Chapter five** is on summary of research findings, conclusions, recommendations and suggestion for further research.

CHAPTER TWO

RELATED LITERATURE REVIEW

2.1 Introduction

The purpose of this study was to investigate the influence of institutional factors on access to County Vocational Education and Training institutions in Makueni County. This section presents a review of related literature to the study. It consists of introduction, an overview of VET programmes and accessibility, relevance of training courses and access to CVET institutions, adequacy of training facilities and equipment and access to CVET institutions, career guidance on TVET and access to CVET institutions, adequacy of competent instructors and access to CVET institutions, summary of related literature reviewed, theoretical framework and conceptual framework.

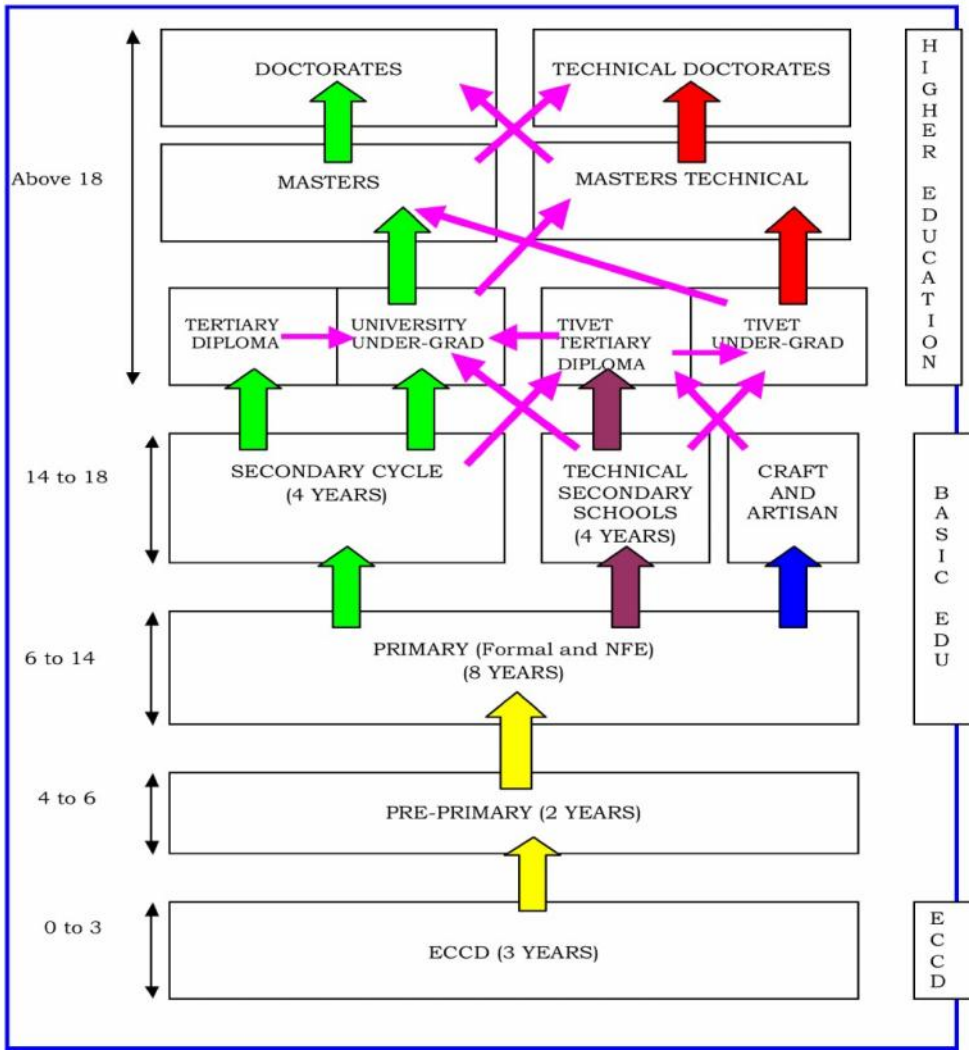
2.2 An Overview of Vocational Education and Training and Accessibility

TVET institutions are categorized in terms of the course-levels they offer. Vocational Training Centers (VTCs) offer artisan courses and award artisan certificates. VET in Kenya is managed and governed by the County Governments. Youths can enroll for VET courses after successfully completing their basic Primary or basic Secondary education. Most of the training courses offered by the VTCs (formally youth polytechnics) are open to accommodate those who drop out of school at any level. The Vocational Training Centres offer artisan and trade test courses leading to trade test certificate which accommodates the secondary level graduates who score grades E, D- and any other interested youth. (Ministry of

Education, 2019). In some cases there are some artisan trade that do not require a minimum qualification for one to enroll. Some of the courses offered at this level of training include; building and construction technology, carpentry and woodwork, electrical and electronics, metal work and fabrication technology, artisan in motor vehicle mechanics, fashion design, garment making, hair dressing, beauty therapy, government grade test II &I, leather work technology, knitting and embroidery, food processing, information communication technology (ICT) among other courses. The current education and training structure which is being phased out to adopt a Competency-Based Curriculum (CBC) has both academic and TVET path ways.

The academic paths starts with Early Child Development Education (ECDE), Basic Primary education, Basic Secondary education, TVET, which includes VET centres offering artisan courses (trade test courses), (TTIs) and institutes of technology offering craft and diploma courses, as well as craft and diploma courses in national polytechnics, leading to trade tests, certificates and diplomas in various disciplines and University education, Masters and Doctorate Degrees (Ministry of Education, 2019). Figure 1.1 illustrates the structure of the education system in Kenya detailing all paths from Early Childhood Development Education (ECDE) to higher education.

Figure 1.1 Structure of education system in Kenya



Source: Sessional Paper No. 1 of 2019 on a Policy Framework for Reforming Education and Training for Sustainable Development in Kenya.

The Government has provided policy direction for education reforms to address prevailing training gaps in TVET sub-sector which encourages a strong public and private sector partnerships (PPPs). The Kenya Vision 2030 underscores the critical role played by TVET in generation of human and social capital necessary for sustainable social, political and economic development (Republic of Kenya, 2014). The reforms are aimed to provide a stock of labour force with market-oriented

qualifications, linked to the economic and social priorities as well as private benefits to an individual. This is based on the premise that, for a country to achieve its objective in industrialization and technological development should ensure that it has adequate skilled manpower with up-to-date employability skills, creativity, problem solving skills and ethical values which are essential to sustainable productivity in todays' work place and its global competitiveness. *Kenya Vision 2030* demands that TVET should significantly contribute to the development of middle level professionals comprising of engineers, technologists, technicians, crafts-people and artisans who are key for development initiatives needed for sustainable economy and social stability (Republic of Kenya, 2017).

Vocational Education and Training (VET) when relevantly linked with the industry requirements is considered to be the primary means for an innovative economy realized through technological innovation. This equips the young population with entrepreneurial skills, values, competences, and attitudes which are key for competitive participation in the labour market for social and economic progress (Ministry of Education, 2019). Technological advancement and entrepreneurial development in developing countries will depend on the kind of education and training programmes which promotes entrepreneurship, lifelong learning, social stability and private returns to the individuals who make a deliberate efforts to invest in their education and training. The current TVET sub-sector in Kenya to a large extent is based on theoretical training which overlooks the assessment of competence that is an important aspect in the world of work. This

kind of training insufficiently prepares them for the requirements of the industry (Ministry of Education, 2019). A study carried out in Nakuru County and published by the Institute of Economic Affairs in 2017, to examine the quality of training gap between student's expectations and perception of service delivery in assessing the effectiveness of polytechnics in the county identified the need to make TVET more attractive. Based on the study findings, the large number of secondary graduates were found to have enrolled in cheap irrelevant training courses that do not prepare them to the world of work. The training courses were considered irrelevant since they were more of theory than hands-on-practical training (Oduor, Kubutha, Tabuche, & Masese, 2017).

Industrialized and middle level countries have over the years made deliberate efforts to improve their national cohesion, social mobility and economic progress, by reforming their education and training sector and creating a link between the government, industry and TVET sub-sector to address the impact of globalization which has increased interdependence between states (Afeti, 2015). Consequently, the development of Competency-Based Education and Training (CBET) Policy Framework (2018), which offers policy guidelines for implementation at the institutions offering TVET programmes, has been adopted to deliver requisite skills and address issues related to relevance of training programmes and enrolment in VET institutions. Basically, the CBET framework aims at mitigating the gaps between the TVET training programmes and align them to the needs of the job market (Ministry of Education, 2019). Industrialization and improvement of the

quality of life for a county's citizens is enhanced through production of adequate middle level professionals who are essential in production of goods of industrial nature to increase the country's real income. It is evident that the quality training and other skills development processes plays a significant role in human capital development to produce a stock of human resource necessary for development initiatives needed for sustainable economies (UNESCO, 2016). Based on this evidence, continual reforms to cope with the current high rate of increasing graduates from the secondary school level and to create relevant training opportunities is of great importance to enhance relevant skills development.

VET remains the first paramount step from being unemployable to employability. It has demonstrated social, economic and private benefit in the industrialized countries were TVET has been considered a skill development option. In the European labour market, vocational qualifications constitutes about 60% of all middle level qualification (Cathleen, Raffe, Georg, Ammerman, & Watters, 2014). Despite these benefits, VET in Kenya for a long time has lacked the esteem when compared to academic path ways. According to TVETA Strategic Plan 2019 – 2023, negative perception in TVET as a major threat to realize the TVET sector agenda. It has also been noted that, county governments are giving low priority to VET which has negatively impacted on quality and relevance (Republic of Kenya, 2019).

2.3 Relevance of Training Courses and Trainees' Access to CVETIs

Education for Sustainable Development (ESD) Policy (2017), points out that, TVET and higher education institutions are yet to move beyond the provision of individual courses and specialist training to offer more Education for Sustainable Development, relevant content and learning practices (Ministry of Education, 2017). *Kenya Vision 2030* has special interest on the role played by TVET sub – sector for the prosperity and growth of other sectors in the economy that contribute to the country's efforts to become a middle – income country, with the ability to provide high quality life for its people. This objective can be achieved only if, the CVETIs training courses are industry driven so as to produce well qualified CVET graduates needed for the social stability and economic progress. Kenya's tertiary education has not significantly developed in the last 50 years to produce adequate skilled human capital for its social and economic take-off (Ministry of Education, 2019).

This is based on the premise that, the relevance of vocational training courses is significant to the requirements of the job market. Relevance of a training programme in this case, increases the chances of an individual's employment. This makes it necessary for the government to create an environment that encourages industrial and academia participation to inform the establishment of labour demand driven training courses, to address the prevailing vocational training and industry mismatch which could be a critical contributor to the prevailing low enrolment rates in vocational institution, high levels of unemployment and others social instabilities

(Republic of Kenya, 2012). To enhance the relevance of TVET courses, the Government of Kenya has made a commitment to streamline management and assessment of industrial attachment process to promote practical experience required for practical skill development, increase the employability of TVET graduates, enhance their career progression, and increase their productivity and lifelong earnings. This deliberate move was meant to create link between the training courses offered by the TVET institutions, use of relevant training equipment and the labour user institutions in all sectors of the economy so as to boost access to TVET (Republic of Kenya, 2013).

A study done in Nakuru County to assess the Youth polytechnic student's perception of vocational training found out that, the demand for the TVET programme that meets trainee's expectations is determined by the relevance of the curriculum in place. A curriculum that focuses on practical lessons as opposed to theory, meets the work place requirements, prepare one for self-employment and able to provide additional soft skills like communication skills and life skills was found to have a major contribution on trainees expectations and needs which increases the enrolment in VTCs (Oduor, Kubutha, Tabuche, & Masese, 2017). In recognition of the need for industrial attachment to enhance quality training and attractiveness of VET, section 19 (1) of TVET Regulations states that, an institution shall make necessary arrangements for having certain classroom sessions taken up by suitable faculty or experts from the respective industries and may from time to time arrange industrial attachment for the students (Government of Kenya, 2015).

This arrangement would make VET gain social acceptance and address the historical misconception which has made VET non-attractive as compared to the general education pathways. This is justified by the fact that, the majority of countries across the world have appreciated the critical role played by TVET towards social-economic development (Oduor, Kubutha, Tabuche, & Masese, 2017). Yegon (2016), asserts that, as devolved governments articulate their mandate to regulate and coordinate technical training function, the focus on policy should be aimed at linking the TVET programmes with industry needs, use of advanced technology, provoke invention and innovation, enhance collaboration, enhance participation of professional bodies in the training programmes design to enable TVET sub-sector to provide skills that are required to meet the dynamic business environment.

His argument holds that the level of training skills and knowledge possessed by a nation is significant to drive a sustainable development process. It is for this reason that, a country should ensure that access to VTCs not only a second option for admission in regular academic path ways but also people with sound general education. According to Ifeyinwa & Serumu (2016), the kind of curriculum in place has an influence on the attractiveness of Vocational training. In their study carried out in Nigeria to establish the constrains and remedy to quality vocational skill development they reported that, the low social recognition of vocational skill development in Nigerian vocational institutions which has translated to low enrolment was attributed to; poor staffing, poor quality training in terms of training

facilities and equipment inadequately trained VTCs instructors, use of outdated vocational training curriculum which was rated to be obsolete and irrelevant to meet the labour market requirements. Further, the curriculum had not been reviewed for more than 20 years which made the vocational training courses more irrelevant and non-attractive to prospective trainees (Ifeyinwa & Serumu, 2016). To investigate the relevance of VTCs training courses in Makueni County, this study sought to investigate whether, the relevance of training courses has an influence on access to public vocational education and training institutions in Makueni County, Kenya.

2.4 Training Facilities and Trainees' Access to CVET Institutions

Institutional infrastructure is considered to be an important base for effective training in TVET. The main goal of adequate and operational infrastructure is to increase the institutions' enrolment, enhance staff motivation and improve the education and training outcomes. Institutional infrastructure includes; the classrooms, training facilities and equipment, workshops and other physical facilities necessary to support enrolment and provision of quality education and training (Umar, 2019). According to TVET regulations (2015), a training institution to be legible for licensing, it's required to establish adequate training physical facilities for the training programmes. In Section 8 it states that, an institution shall provide adequately equipped workshops or laboratories where these are required by the curriculum offered, and where the institution offers courses regulated by professional bodies (Government of Kenya, 2015). Training for high-quality skills requires standards on the appropriate training equipment and tools, relevant training

materials, operation manuals, CBET curriculum and trainers. This has often been a weakness in both public and private TVET providers (Republic of Kenya, 2019). The skills mismatches experienced in most third world countries could be attributed to the quality of the training environment which goes beyond the industry and academia participation and collaboration. The adequacy of quality, relevant and operational training facilities is paramount. The opposite compromises the relevance of training. In line with the important role played by industries in socio-economic development in many African Countries, ill-trained TVET graduates could less contribute to a sustainable growth and social-economic development of most of the Sub-Saharan Africa Countries (Yegon, 2016).

To provide quality and relevant training programmes in TVET, the training environment should be aimed at producing a stock of human capital who are innovative and creative to contribute substantially in sustainable development (Ayonmike, Okwelle, & Okeke, 2014). According to Oduor et al 2017,in a study done in Nakuru County to assess the youth polytechnic student's perception of vocational training found out that, the quality of TVET programme that meets the trainee's expectations is determined by the quality of the training facilities which is part of the training environment. It is at this point that the institution that is committed to meet the trainees' expectations should focus on improving their training facilities and equipment. The study observed that, the perceptions of these training facilities and equipment contribute to VET image and prospective trainees put into consideration this important aspect in their evaluation process to decide the

kind of institution to consider for enrolment (Oduor, Kubutha, Tabuche, & Masese, 2017). The inadequacy of training facilities / infrastructural resources coupled with inadequate career counselling, social stigma towards VET graduates, inadequate job education has been associated with low enrolment in TVET institutions in Malaysia. In Malaysia, VET is considered a last option training choice as compared to the main academic track which has contributed to low enrolment for VET training courses (Muhd, et al., 2020). VET's fundamental aim is to equip the learner with practical skills. Gaining such appropriate design, construction and repair skills calls for a well-functioning infrastructural and machinery facilities to ensure effective, efficient and resilient employable skills for learners. Inadequacy of such important facilities would negatively influence students' enrolment in vocational institutions (Muhd, et al., 2020).

A study carried out by Ifeyinwa &Serumu (2016), in Naigeria on constrains and remedy to quality vocational skill development established that, the training facilities in most of the vocational institutions were different from the ones in the industries where the TVET graduates are expected to seek for employment and participate productively. According to the study, the training facilities were observed to be inadequate, outdated, and non-operational. The status of the training infrastructure was found to be a key contributor to low social recognition of VET which translated to low enrolment across the vocational institutions (Ifeyinwa & Serumu, 2016). According to TVETA Strategic plan 2019 – 2023, the tools and equipment being used by some TVET institutions are in Kenya are often

inadequate, inappropriate, outdated or broken. Some TVET institutions have challenges in acquiring appropriate tools and equipment due to limited funding and lack of mechanisms to mobilize funds. This state of affair has affected the quality of the trained graduates from these institutions because there may not be enough equipment for each trainee to have necessary time for practical sessions and expected level of quality and technological know-how required by the growing market. In most TVET institutions, training facilities which include; classrooms used for theory sessions and workshops used for practical sessions and also sanitation facilities are mostly inadequate in terms of numbers, capacity and how they are equipped. The obsolescence of training equipment and tools, the inadequacy of teaching and learning facilities contribute to the poor quality of TVET delivery.

Research done by Anindo, Mugambi and Matula in Nairobi County (2016), indicated that, most of TVET institutions in the County had inadequate training facilities and equipment, less industry participation and limited flow of market information. The fore stated challenges were noted to have negatively influenced the training and skill development to VET graduates leading to poor acquisition of market oriented skills among the graduates which compromises their employability (Anindo, Mugambi, & Matula, 2016). This was supported by a study carried out Aguda (2015), at Ramogi Institute of Advanced Technology in Kisumu County to establish the influence of teaching-learning resources on transition rates of diploma students which found out that the cost of buying training materials was a burden to

the trainees and was a key contributor to low transition rates at 82.1%. The influence of furniture and other facilities was rated as 48.38% which was rated to be below average. The findings informed the recommendation for the institution to source for funding to purchase training resources to meet the needs of poor students who could not transit to the next level of study and reduce the dropout rate. From this findings, adequate training facilities and physical infrastructure significantly promote demand for TVET which increases the levels of enrolment in the vocational institutions (Aguda, Odundo, & Rambo, 2015). The study however, did not establish the influence of such important training facilities on the prospective trainees' enrolment for vocational education which creates a gap for further study. This study set out to establish whether the status of the vocational institutions' training resources and physical infrastructure has an influence on access to CVET institutions in Makueni County, Kenya.

2.5 Career Guidance and Trainees' Access to CVET Institutions

Career guidance services is a consultative services aimed at helping people to make informed decisions on career choices, education and training decisions and occupational mobility choices despite their age and to manage their careers (Watts & Fretwell, 2004). The concept of vocational guidance can be traced to the work of parsons in 1909. He worked with young people to help them make decisions concerning their vocations. Consequently, he is considered the father of vocational guidance. On his opinion he argued that the young face a lot of internal and external pressure in the process of their career decision making. He adds that, for students

to make the right career choice they need to be assisted to reach a wise choice. This can be done considering self-assessment to oneself, one's aptitudes, abilities, interests, ambitions, required resources and vocational training options available (Parsons, 1909). For this to happen, a well-thought career requires a professional and a well-developed career guidance system that is able to address training needs of the student (Farid, 2019). Career information basically includes information on training courses offered by various training institutions in the economy, related occupations, minimum admission requirements, cost of training and the financing options available, career paths for future career progression and labour market information which enables an individual to make a decision to enroll and pursue an area of interest based on the set enrolment requirement (Farid, 2019).

Enrolment for education and training is proportionately influenced by the career education passed to the population formally or informally which makes individuals to make informed decisions on their career choice and managing their career development. Career guidance enable the young population and others to make a choice in wide range of available training opportunities and training courses, based on their distinctive abilities, interests and ability to meet both direct and indirect costs of training. This implies that, career guidance is one of the key tools which is indispensable within TVET sub-sector. Enrolment to a TVET institution is a clear indication that an individual has made a deliberate choice on a career pathway to shape his/her skill development ambitions (UNESCO, 2013). Farid (2019), pointed out that, through career development sessions, the young population find

information about the available training opportunities. During this critical moment, the adolescent need the guidance from experienced career counselors and others who have experience in career decision-making process (Farid, 2019). Based on this argument, access to VET largely depends on information on the availability of training opportunities and programmes passed through career awareness. It is further noted that, training institutions in many developing countries traditionally have not seen transition to vocational training as a significant concern of their human resource development and their mission too leading to low development of careers advice which has influenced enrolment (UNESCO, 2013).

A study conducted by UNESCO-UNEVOC between 2019 -2020 in ten countries (Australia, Chile, Costa Rica, German, Ghana, Jamaica, Lebanon, the Netherland, the Philippines and South Africa on boosting gender equality in science and technology, a challenge for TVET programmes and career indicates that, educational career advice provided by educational staff and career advisers has a strong influence on prospective trainees' choice for TVET training programme (UNESCO-UNEVOC, 2020). This means that, the shared information influence the image of TVET which affects the personal choices on the areas of education and training for career development. This to a large extent influence the enrolments in various education and training institutions leading to low enrolment if the image created on TVET is negative. Student career guidance is about supporting young people to take their next steps into the world of work or self-employment (UNESCO-UNEVOC, 2020). It needs to take account of the diversity of

destinations, to embrace the new and evolving world of work that young people face both now and in the future, to encourage reflection on experiences and to be able to respond to individual needs. This is especially the case for TVET, where the proximity of students to the labour market should open up all career opportunities available to them (UNESCO-UNEVOC, 2020). A study by Watters (2009), on making initial VET more attractive for prospective trainees observed that, careers departments have inadequate expertise to guide the trainees on career progression making it difficult to enroll for higher level training courses in the institution or in other related institutions. Further, to increase the capacity to make deliberate choice for vocational education and training she states that, career expertise should provide exhaustive career advice necessary for the prospective trainees to decide appropriately the kind of course to enroll for in a collage (Watters, 2009). This indicated that, inadequate career guidance arrangements, less need-based career guidance, limited information on career progression and labour market remunerations, leads to low empowerment of the learners on the choice of pathways and tracks at the end of their basic education. It may lead to low drive for career progression in TVET leading to low enrolment rates in TVET institutions.

A case study done in four Higher Education institutions in Ireland by Eleanor (2015), to examine the students' experiences of the transition to higher education in Ireland, which focused on the extent to which the skills, competences and orientations help students to succeed in their choices for enrollment and participation in Higher Education institutions indicated that, the prominent factors

influencing access to Higher Education is inadequate accurate initial information on the course requirements, components and the standards of a training programmes, unrealistic expectations in ones future career and lack of gradual preparation to enroll in TVET at the early stages of schooling (Eleanor, 2015). Based on this insight, development of a framework to support students at their early stages of schooling (basic education level) to understand the basic expectations and requirements for various career pathways is considered critical to inform their career choice decisions. The study suggested for an introduction of guidance programme that touches on realities of studying different courses and the collage life in general at the secondary school level to boost access to higher education.

A study on female students' participation in TVET done in West Pokot County found out that, most of the girls who could not enroll for secondary and tertiary education after sitting for their KCPE, in various years, were not aware of the training opportunities available in VTCs in the County (Andiema & Manasi, 2021). This findings brings out an information gap in the society about the existing training opportunities in VTCs for boys and girls to acquire competitive skills and knowledge for gainful employment. A study by Farid (2019), on the factors that influence prospective trainees' decision to enroll for Vocational Education and Training in Tajikistan established that youths face more challenges in the process of making informed career decisions in those Countries where career guidance systems are poor or does not exist all together. The study indicated that, the youths who live in the rural areas where there is less opportunities for industrial

information that could enhance their career awareness as the most affected. The absence of such information was noted to limit them from developing interests and aptitudes for the careers and training opportunities available for skill development in the fast changing knowledge economy. Basic education graduates (secondary school level graduates) all along their schooling time long to join universities for degrees programmes whose entry requirements may be a challenge to meet. They then encounter a dilemma about making a choice on their career pathway when faced with Vocational training in both public and private institutions as well as other middle-level colleges as the only option available. In support, a study done by Crockett, Shanahan & Jackson-Newsom (2000), pointed out that secondary school students from the rural and remote areas have limited career information and the type of skills, knowledge, qualifications and attitudes required by various potential employers. This denies the students an opportunity to develop interest and aptitudes of the careers and jobs available in the prevailing fast-changing economy (Crockett, Shanahan, & Jackson-Newson, 2000).

According to Safarmamad (2019), secondary school graduates in Tajikistan, encounter challenges in their process to decide the post-secondary institutions they would enroll to pursue their education and training. Professional career guidance is a continuous process that should guide the career choices. Relevant career should be a key concern from kindergarten, primary, secondary, TVET colleges and universities, as well as in the communities and at work place. A well planned and organized career guidance services are important in helping individuals to make

career choices and transitions. Systematic and organized career awareness, exploration and decision making are limited in Kenya (Republic of Kenya, 2022). According to Technical and Vocational Education and Training Authority strategic plan 2019 – 2023, career guidance in both primary and secondary schools tends to be biased towards university education, resulting from limited awareness about the training opportunities available in Vocational Education and Training institutions. In order to increase access and inclusivity in TVET it is necessary to strengthen career guidance and counseling in primary and secondary schools in order to inform prospective students/trainees and parents/guardians about the opportunities in TVET (Republic of Kenya, 2019). To assess the influence of career guidance on access to TVET, this study sought to establish whether, career guidance information determines one's decision to enroll in public CVETIs in Makueni County which is an ASAL region in Kenya.

2.6 Adequacy of competent Instructors and Access to CVET Institutions

Technical and vocational competencies of instructors in TVET institutions has a significant effect on the quality of training skills passed to the trainees. Based on this concern, it is credible to ensure that, the TVET instructors are well-trained in their areas of specialization. This is based on section 13 of the TVET Regulations (Government of Kenya, 2015). TVET instructors are key players in the production of a workforce with relevant industrial skills. They are responsible of implementing vocational training curriculum, which if linked to the industry needs and its industry

driven requires a competent trainer, with industry experience and competences. A competent instructor who is responsive to the industry demands, is expected to narrow the training gap and offer training for sustainable development. This is why educators are important agents to foster prosperity and international competitiveness of a nation (Ministry of Education, 2019). Despite the progress made in enhancing access, retention, quality, completion rates and gender parity in education and training, the TVET sector continues to face many challenges. These include an insufficient number of trainers with the required CBET trainers' competency, limited industry participation and inadequate research support service. TVET in Kenya is also characterized by a low quality of training, occasioned by obsolete training facilities and equipment, and lack of instructional materials amongst other factors that require regulation and coordination.

High quality skills training requires qualified instructors, appropriate workshop equipment, adequate supply of training materials, and practice by learners which can only be addressed through coherent and sector-wide standardization and regulations (Republic of Kenya, 2019). Basically, a team of competent trainers endowed with soft skills has the capabilities to mitigate the historical issues of relevance of skill development through modern training and research. TVET sub-sector through the County governments has a mandate to a continual skill upgrading to meet international standards on appropriate training methodologies. This is based on the premise that, educating for sustainability improves the trainees' capacities for sustainable communities (Ministry of Education, 2017). It has been observed

that, most of the VET instructors in Kenya are inadequately skilled and have not been exposed to the industry needs which requires a mass of human resource, with requisite skills and competences essential to achieve the objective of *Kenya Vision 2030* and the international Sustainable Development Goals (SDGs.) (Republic of Kenya, 2015). The transformation of TVET sub-sector in the developed Countries like Malaysia, to meet industry requirements has been successfully achieved through focusing on addressing competence gaps among the instructors, which were not limited to minimal industry exposure and skills deficiencies. This led to improvement of TVET delivery systems resulting to increase in trainees' enrolment (Arifin, Rasid, Anuar, & Omar, 2017). This implies that instructors in VET institutions are the mechanisms of training systems. Their competencies are therefore the key points reflecting quality and relevance of TVET programmes, whose graduates should participate competitively in the job industry.

The inadequacy of well-trained trainers in CVET institutions could be a key contributor to low social acceptance for TVET, which has led to low levels of enrolment. To ensure that, the young population meaningfully participates in the world of work, the input of a competent and well trained instructor is of a great importance. This will address needs of idle youths who may engage in radicalization, politically influenced crisis and other unethical social evils (African Development Fund, 2015). Mkpughe &Serum (2016), supported that, low societal recognition of VET and inadequate and ill-equipped vocational education staff as some of the challenges translating to low enrolment in TVET institutions in Nigeria.

In support, a report by Educaid (2016), on the alignment of training and employment indicated that, most of the TVET instructors and trainers enter the classroom without industrial experience background and with limited or no experience on the world of work in the areas they prepare the trainees for. The instructor's and trainer's quality is recognized as the single most important institutional variable influencing trainee's achievement. The inadequate industrial experience and lack of work experience weakens the linkages between TVET programmes and the industry (Educaid, 2016). To assess whether, the adequacy of competent TVET instructors determines the prospective trainees decision to enroll for a TVET programme, this study sought to assess the extent to which institutional factors influence access to CVETIs in Makueni County.

2.7 Summary of Related Literature Reviewed

This chapter has clearly identified some of the institutional factors that may have an influence on access to CVET institutions. The reviewed studies did not establish how these factors complement to influence access to CVETIs. The evidence provide an avenue for further studies. In reference to a study by Oduor et al 2017, in Nakuru County to assess the Youth polytechnic student's perception of vocational training found out that, the demand for the TVET that meets the trainee's expectations is determined by the relevance of the curriculum in place. A curriculum that focuses on practical lessons as opposed to theory, meets the work place requirements, prepare one for self-employment and able to provide additional soft skills like communication skills and life skills was found to have a major

contribution on trainees expectations and needs which increases enrolment in VET (Oduor, Kubutha, Tabuche, & Masese, 2017). The quality of VET that meets the trainee's expectations is determined by the quality and adequacy of the training facilities and equipment, which is a significant component in the training environment. It observed that, the status of these training facilities and equipment contribute to VET image (Oduor, Kubutha, Tabuche, & Masese, 2017). The inadequacy of training facilities / infrastructural resources coupled with inadequate career counselling, social stigma towards VET graduates, inadequate job education has been associated with low enrolment in TVET institutions in Malaysia (Muhd, et al., 2020). The status of the training infrastructure was found to be a key contributor to low social recognition of VET which translated to low enrolment across the vocational institutions (Ifeyinwa & Serumu, 2016). These studies did not look at the influence of the training courses themselves and whether they have an influence on access to CVETIs.

Farid (2019), pointed out that, through career development sessions, the young population find information about the available training opportunities. During this critical moment, the adolescent need the guidance from experienced career counselors, and others who have experience in career decision-making process. Based on this argument, access to VET largely depends on information on the availability of training opportunities and programmes passed through career awareness. It is further noted that, training institutions in many developing countries traditionally, have not seen transition to vocational training as a

significant concern of their human resource development, and their mission too leading to low development of careers advice, which has influenced enrolment (UNESCO, 2013). The study didn't look at how career guidance influence career progression whose long-run effect is increased enrolment in CVETIs. Watters (2009), in her study on making initial VET more attractive for prospective trainees observed that, careers departments have inadequate expertise to guide the trainees on career progression, making it difficult to enroll for higher level training courses in the institution or in other related institutions.

This was supported by Farid (2019), on the factors that determines prospective trainees' decision to enroll in Vocational Education and Training in Tajikistan who indicated that, youths face more challenges in the process of making informed career decisions in those countries where career guidance systems are poor, or does not exist all together. It was observed that, most affected group are youths who live in the rural areas where there is less opportunities for industrial information that could enhance their career awareness.

Mkpughe &Serum (2016), in their study done in Nigeria to assess the VET educators' perception on constraints and remedy to quality TVET skills development for VET students reported that, low societal recognition of VET and ill-trained instructors as some of the challenges translating to low enrolment in TVET institutions in Nigeria. Based on these studies, institutional factors can be

used as a baseline study to identify means and ways to enhance access to CVETIs. However, it is important to examine to what extent the institutional factors influences access to CVETIs. This study therefore aimed at addressing the question by carrying out a survey in 21 County Vocational Education and Training institutions which were randomly sampled from 28 registered public CVETIs.

2.8 Theoretical Framework

This study was guided by Human Capital Theory (HCT) whose origin can be traced to the work of Adam Smith in 1976. The theory affirms that, the sustainable social-economic and resilient well-being of a community is a function of its financial capital, quality labour force, natural resources endowment as well as knowledge and skills of its population. This theory holds that, when knowledge and skills of the population increase, will yield to improved social-economic outcomes for both individuals and societies. It argued that, in modern communities, knowledge and skills possessed by the population enhances a greater economic and social premium.

Skill development is a significant component of human capital theory. Education and training all along has been the primary means of developing knowledge, skills, attitudes and other attributes which are ingredients for meaningful productivity. That is, there is a direct connection between the increased levels of skill development and individual's lifelong earnings. Skill development is therefore viewed as the core means of improving ones productivity, efficiency, economic outcomes and well-being of the society and other lifetime direct and in direct

benefits (Crocker, 2006). HCT affirms that investment in skills development is expensive and involving, making it necessary to project human resource needs and requirements of the labour market, training needs analysis and establishment of training gaps. Since early 1960s, the theory has been influential in the Western education planning and informing framework of Government policies. The theory is the most suited for this study because, Education is a key element of human capital theory. Education is viewed as the primary means of developing knowledge, skill and a way of quantifying the quality of labour. Human capital theory also underlies studies of the impact of specific forms of investment in education and of differing uses of the resources available to education.

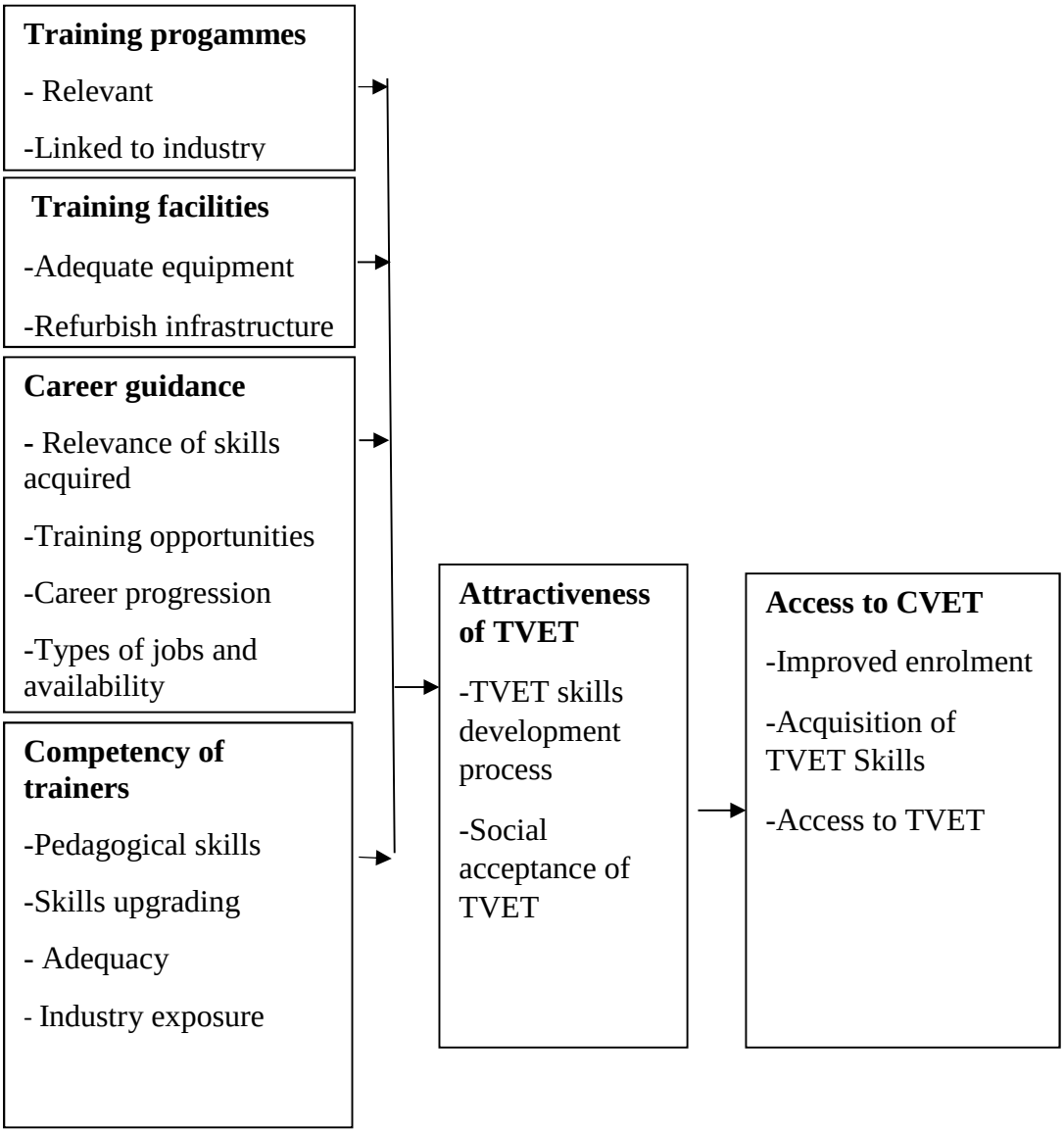
This study focuses on the skill development processes and the training environment required to achieve the desired education and training outcomes. The theory fits in this study based on the evidence that, education and training is an investment whose relevance can be guaranteed in labour market driven institutions (Psachoropoulos & Woodhall, 1997). Using the theory, the study sought to investigate whether institutional factors have an influence on trainees' access to CVETIs in Makueni County Kenya.

2.9 Conceptual Framework

The development of the conceptual framework considered access, increased enrolment and demand for CVETIs courses as the outcome which is influenced by

a series of institutional factors. The framework follows the structure of the research questions by identifying the drivers of TVET attractiveness. In this conceptual framework, access is the outcome of; training programmes, training facilities, career guidance and competency of trainers as shown in Figure 2.1.

Figure 2.1 Structure of education system in Kenya



Source: Researcher 2019.

The study was guided by the above conceptual framework which links institutional factors (independent variables) to access (dependent variable). It relates the independent variables that may have an influence to prospective trainees'

enrolment in CVETIs which are training courses, training facilities, career guidance and competency of trainers. Prospective trainees' enrolment in CVETIs is the dependent variable. The output is influenced by how training inputs interacts through skill development process.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This study was set out to investigate the influence of institutional factors on access to CVET institutions in Makueni County. This section presents research design, target population, sample size and sampling procedure, research instruments, validity of research instruments, reliability of research instruments, data collection procedures, data analysis techniques and ethical considerations.

3.2 Research Design

Research design has been defined as the guiding plan that is used to answer a research question (Orodho, Khatete, & Mugiraneza, 2016). From this definition, a research design outlines the specific methods and procedures to be followed in the data collection exercise, how the collected data will be analyzed and presented for a meaningful interpretation and generalization. It's also described as the conceptual structure that guides a scientific study whose procedure involves collecting, measuring, organizing and analyzing a data set (Kothari & Gaurav, 2014). The selection of an appropriate research design determines the quality of data to be collected. This makes the research design selection the most important step in the research process (Kothari & Gaurav, 2014). In this study, descriptive research design was used as it's a quantitative research design. This is because the variables under study were measured as naturally perceived without manipulation or control. The use of this design enabled the researcher to obtain needed information by

interviewing, administering a questionnaire to the sampled subjects and making observations. The design was preferred based on its strengths that, the participants were questioned and observed in a natural setting, the design may identify areas in need of additional research and relationship between variables that require future study. Descriptive studies can generate rich datasets on large and diverse samples. Using this design the researcher summarized the collected data in a way that provided the desired descriptive information to respond to questions by analyzing without manipulating the independent variables relating to institutional factors influencing trainees' access to CVET institutions in Makueni County.

3.3 Area of the Study

The study was done in Makueni County between September 2019 and February 2020. The County has a population of 987,653 (2019 census). It is situated in the South Eastern part of the Country bordering Machakos County to the North, Kitui County to the East, Kajiado County to the West and Taita Taveta County to the South. It is located between Latitude 1º 35´ and $32^{0}00'$ South, and Longitude 37º10´ and 38º30´East, Makueni County covers an area of 8,008.7km^2. Makueni County lies within the arid and semi-arid zones of the Eastern region of Kenya. The County levels of poverty stands at 60.6 % with an extremely youthful population composition at 43.8% aged between 0 and 15 years (County Government of Makueni, 2016). The high youthful population and high cases of unemployment is a major development challenge. Among these challenges, is the situation of low

quality skill development that exhibits more profoundly with high illiteracy rates, inadequate training infrastructure and low enrolment in CVETIs (County Government of Makueni, 2016).

3.4 Target Population

Target population is the whole group of subjects from which a representative sample might be drawn. It consists of all the elements or items whose characteristics are being studied (Orodho, Khatete, & Mugiraneza, 2016). Population consists of the universe representing the elements whose characteristics are of great concern to the researcher, and from which a representative sample is drawn and hence generalization of the research findings. The study targeted the 28 registered public County Vocational Education and Training institutions in Makueni County. The population comprised of 28 managers, 154 instructors and 1504 trainees. The target population was 1686.

3.5 Sample Size and Sampling Procedure

A sample is defined as a group of individuals from a larger population who participate in a study either by interviewing or completing survey. Using the sample data was collected and analyzed to make inferences. A representative sample to a population should be randomly selected and adequately large (Orodho, Khatete, & Mugiraneza, 2016). The study used stratified and simple random sampling to obtain a representative sample since the target population comprised of three groups of

informants. Using this technique, the population was stratified into three strata of the managers, instructors and trainees which were non-overlapping. Using simple random technique, the subjects were selected from each stratum whose effect was to improve representativeness and reduce the sampling error (Orodho, Khatete, & Mugiraneza, 2016). The sample size of the informants was determined by use of Taro Yamani formula at 0.05 level of significance with a confidence coefficient of 95% as shown (Yamane, 1967).

$n= \frac{N}{1+N\square^2}$.

Where, n=the sample size,

N = the size of the population,

$\square$ = the error of 5% points

i. Institutions sample size $n= \frac{28}{1+28(0.05)^2}= 21$

ii. Managers sample size $n= \frac{28}{1+28(0.05)^2} = 21$

iii. Instructors sample size $n= \frac{154}{1+154(0.05)^2} = 87$

iv. Trainees sample size $n= \frac{1504}{1+1504(0.05)^2} = 316$

Table 3.1

Sampling Frame

Respondents target	population	sample	%
Managers	28	21	75
Instructors	154	87	56.5
Trainees	1504	316	21.01
Total	1686	424	

3.5.1 Sampling Techniques

A sample of 21 CVET institutions out of 28 registered institutions before devolution in the county were used in the study. The sample size was large enough which could make the findings of the study to be generalizable to other counties with almost similar characteristics. Table 3.1 shows the sample size randomly selected from 21 registered county vocational education and training institutions in the Makueni County. In this study, managers were purposively selected as respondents based on the critical role they play as the institutional managers. The population of the trainees in the sampled vocational institutions was 3310 as shown in Table 3.2. However, in this study the researcher considered 1504 first years since a majority of the second year's trainees had already gone for their internship by September 2019 and by November they were preparing for their final examinations. The first years were considered stable respondents within the entire data collection

period which extended to February 2020. In most cases, 16 trainees were randomly selected where gender was a factor to consider. 8 female and 8 male trainees were selected. The researcher drew samples from the training courses groups to ensure representation of the diverse categories of trainees in the institution. Instructors' simple random sampling was based on gender where in most cases 2 male and 2 female instructors were selected to participate in the study. The actual samples are reported in Table 3.2

Table 3.2

Trainees Enrolment, Staff Establishment and Respondents per Institution

No	institution	Sub- County	Enrolment	instructors	Actual respondents trainees	instructors
1	Isovya	Kaiti	158	6	16	4
2	Mwea	Kaiti	43	4	16	4
3	Kauti	Kaiti	20	2	8	2
4	Ukia	Kaiti	66	5	16	4
5	Ukaatuni	Kaiti	60	4	16	2
6	Ngwata	Kibwezi East	329	10	16	6
7	Spring hill	Kibwezi West	145	7	16	4
8	Ng'etha	Kibwezi West	49	7	12	4
9	Kisingo	Kibwezi west	132	9	16	4
10	Enzai	Kilome	295	10	16	6
11	Kathonzweni	Makueni	428	18	16	6
12	Kyemwole	Makueni	50	7	14	4
13	Nziu	Makueni	494	13	16	6
14	Kakuswi	Mbooni East	78	7	16	4
15	Utangwa	Mbooni West	110	4	16	4
16	AIC Tulimani	Mbooni West	141	7	16	4
17	Nduluku	Mbooni East	360	14	16	6
18	Kako	Mbooni East	44	3	14	3
19	Makueni	Makueni	260	7	16	4
20	Mavindini	Makueni	140	6	16	4
21	Uvuu	Mbooni West	40	4	12	2
	Total		3310	154	316	87

3.6 Data Collection Instruments

The researcher used interview schedule, observation check lists, document analysis and questionnaires as the data collection instruments for this study. The researcher designed an interview schedule for sampled managers from sampled institutions which have been operational before devolved governance. The interview schedule was considered most appropriate for the study because, it provided open-ended questions which made it flexible for the researcher to elicit narrative data in greater depth which may enrich the findings of the study. Interviews were considered more powerful when compared to the questionnaires because, the researcher was able to elicit qualitative data that allowed him to investigate the respondents' opinion in greater depth and explored the construction of meaning in a natural setting (Kvale & Brinkmann, 2009).

The importance of using interviews as a research instrument it's attached to its ability to analyze words and report more detailed views of the respondents. It further enables the informants to respond in their own voices, express their feelings and thoughts too, which enriches the reliability and validity of the research findings (Berg, 2007). The researcher interviewed 12 managers who were purposively sampled and had been identified from document analysis at the County youth skill development and ICT offices. An observation check list was used to verify the data already collected from the informants. An observation check list is used when the investigator is collecting the data and at the same time makes an observation to verify the data (Krishna & Rangnatham, 2011). Three sets of questionnaires were

constructed by the researcher to collect desired information from County Vocational Education and Training institutions' managers, instructors and trainees. These data collection tools were used because the cost of administering was low regardless of the geographical distribution of the sampled respondents, no interviewer's biasness and the respondents were free to use their own words to respond to open-ended questionnaires (Kothari, 2004). The constructed questionnaire had both open-ended and closed-ended items to enable the informants to respond to some items in their own words.

3.6.1Questionnaire for Managers

The questionnaire was constructed to be self-completed by the managers based on the premise that they were able to complete it without help. It provided basis for collecting in-depth data about their opinions, attitudes and perspectives about the possible institutional factors that has influenced enrolment and access to CVET institutions in Makueni County. It comprised of five sections. The items measuring the extent of influence were designed into a Likert format response type.

Section A contained sets of items that sought to establish the managers' demographic information. The data on managers' gender, professional qualification and administrative experience was included in this section. Section B of the questionnaire has set of items that sought to respond to how relevance of Vocational training courses influenced access to CVETIs the section also had additional information on the enrolment figures for the various courses since 2015 to 2019.

Whereas section C has items related to how the adequacy of training facilities and equipment influenced access to CVETIs, section D comprised of structured items on how career guidance influenced access to CVETIs. Finally, section E contains structured items on how the adequacy of competent instructors influenced access to CVETIs. Additional information on instructors' terms of employment was included.

3.6.2 Questionnaire for Instructors

The questionnaire was constructed to be self-completed by the instructors based on the premise that they were able to complete it without help. It provided basis for collecting in-depth data about their opinions, attitudes and perspectives about the possible institutional factors that has influenced enrolment and access to CVET institutions in Makueni County. It comprised of five sections. The questionnaire items measuring the extent of influence were designed into a Likert format response type.

Section A contained sets of items that sought to establish the instructors' demographic information. The data on instructors' gender, professional qualification and training experience was included in this section. Section B of the questionnaire has a set of items that sought to respond to how relevance of Vocational training courses influenced access to CVETIs. The section also has additional information on the trainee's enrolment figures for the various courses in their areas of specialization since 2015 to 2019. Whereas section C has items

related to how the adequacy of training facilities and equipment influenced access to CVETIs, section D comprised of structured items on how career guidance influenced access to CVETIs. Finally, section E contains structured items on how the adequacy of competent instructors influenced access to CVTIs.

3.6.3 Questionnaire for Trainees

The questionnaire was constructed to be self-completed by the trainees based on the premise that they were able to complete it with minimum guidance. It provided basis for collecting in-depth data about their opinions, attitudes and perspectives about the possible institutional factors that has influenced enrolment and access to CVET institutions in Makueni County. The questionnaire comprised of five sections. The questionnaire items measuring the extent of influence were designed into a Likert format response type.

Section A contained sets of items that sought to establish the trainees' background information. Data on trainees' gender, age bracket, level of study and entry behavior was included in this section. Section B of the questionnaire has a set of items that sought to respond to how relevance of Vocational training courses influenced access to CVETIs. Section C has items related to how the adequacy of training facilities and equipment influenced access to CVETIs. Section D comprises of structured items on how career guidance influenced access to CVETIs. Finally, section E contains structured items on how the adequacy of competent instructors influenced access to CVTIs.

3.6.4 Interview Guide for Sampled Managers

The interview guide for the managers who had served as administrators before and during the devolved governance for Vocational Education and Training contains items that cumulatively address all the four objectives of the study. Their views were considered critical in revealing what could have possibly influenced the access to CVETIs even after devolution where the former Youth Polytechnics (YPs) were rebranded as vocational centers. The items used in the interview guide were meant to elicit further information that was considered useful to obtain more information on the key contributors to low enrolment in CVETIs in Makueni County.

3.6.5 Document analysis

Document analysis is a qualitative research technique used to evaluate electronic or physical documents to interpret them, gain an understanding of their meaning and develop the information they provide. It is used to provide additional insight. It is also used as a tool to confirming evidence found in other research (Morgan, 2022) . The researcher used the data obtained during document analysis to compare the information provided by the respondents. This would establish the credibility of the data and act as a mixed-method for the study. The researcher was interested to analyze the inventory records on training materials, career guidance departmental minutes, career guidance records, admission letters, brochures, admission records, Class attendance register, records on industrial attachment for both trainees and

instructors, TVET registration certificate, admission policy and sampled trainees records (trainees' personal files).

3.7 Validity of Research Instruments

Validity of research instruments significantly influences the findings of a scientific research since they serve as the guarantees of the results of the informants' performances (Alshenqeeti, 2014). Validity is the magnitude to which a research tool measures accurately the items it is designed to measure. It is therefore the degree of accurately that a research tool would represents the situation under investigation. Basically, validity is categorized into two forms that is; External validity which is generalizability of research findings to the population from which a representative sample had been randomly drawn. External validity answers the questions; can the findings of the study be generalized?

The second form is internal validity which is the ability of a research tool to measure the item it has been constructed to measure and it answers the questions related to differences that may exist in measurements (Kothari, 2004). To enhance higher validity by minimizing the possibility of bias, Cohen (2007), proposes the consideration on the attitude, views and prospects of the interviewer, misconception on the part of the interviewer with regard to interviewees responses and the tendency of the interviewer to seek answers to support their preconceived notion (Cohen, Manion, & Marison, 2007). Content validity on the other is the degree to which items of a research tool are relevant to collect the desired data. It comprises

of the validity and representativeness, clear instructions, free from grammatical errors, logical flow of items, representativeness of items in a given pool, the adequacy of space for response and a clear format (Rossiter, 2008). It has been proved that, research tools with high degree of content validity guarantees the accuracy of measurement on the target construct (Devon, 2007). In this study, content validity was improved through supervisors' judgment to determine whether it met the standards and adjustment were made as advised. The researcher was therefore assisted by his supervisors to enhance content validity of the instruments. The researcher employed simple random sampling technique to select two sub-counties from which two sample CVET institutions were drawn to participate in the pilot study.

A pre-test with 2 managers, 4 instructors and 24 trainees was done. The respondents who were involved in the pre-test nor the two institutions did not participate in the final study. Some questionnaire items were discarded simply because they were found to be ambiguous and others were restructured to enable the researcher to capture the required information based on the study objectives. The piloting enhanced relevance, reliability and quality of the questionnaire.

3.8 Reliability of the Instrument

Reliability of a research tool is defined as the extent to which the tool provides a consistent outcome when subjected to several trials under similar conditions (Kothari, 2004). To measure the reliability of research tools for this study piloting

was done in two CVET institutions one in Kibwezi West Sub-county and the other one in Makueni Sub-County where 34 respondents participated. The researcher employed the Cronbach's alpha coefficient to test reliability of scale. Cronbach's alpha determines reliability by finding how closely an item on a test is to a group of questions.

$\alpha=\frac{N.\bar{C}}{\bar{V}+ N-1 .\bar{C}}$ Where, N= the number of items,

$\bar{C}$= average covariance between item pairs,

$\bar{V}$= average variance.

Statistical Package for Social Science (SPSS) was used to compute reliability coefficient. Table 3.3 shows Cronbach's alpha reliability coefficient for various levels measures for managers' questionnaire. A coefficient of (0.772) was obtained. Since the reliability coefficient was above 0.60, the instrument was considered reliable.

Table 3.3

Cronbachs' Alpha Reliability Coefficient for Managers' Questionnaire

Variable	Reliability Coefficient	remark
Relevance of training courses on access to CVETIs	0.86	accepted
Training facilities and equipment on access to CVETIs	0.82	accepted
Career guidance on access to CVETIs	0.77	accepted
Adequate instructors on access to CVETIs	0.90	accepted

Table 3.3 shows the Cronbach alpha values that were calculated for the set of questionnaire items that come under each section. The results represented a good internal consistency. The coefficient of reliability revealed alpha values that were ranging from $\alpha = 0.77$ to 0.90. On average all the items within the subsections appeared worthy of retention, though few items had to be changed to improve their reliability. The Cronbach alpha values that were calculated for the set of questionnaire items in the instructors' questionnaire are reported in Table 3.4.

Table 3.4

Cronbachs' Alpha Reliability Coefficient for Instructors' Questionnaire

Variable	Reliability Coefficient
Influence of relevance of vocational training courses on access to CVETIs	0.88
Influence of training facilities and equipment on access to CVETIs	0.92
Influence of career guidance on access to CVETIs	0.87
Influence of adequate instructors on access to CVETIs	0.86

Table 3.4 shows the Cronbach alpha values that were calculated for the set of questionnaire items in the instructors' questionnaire. The results appeared to have a good internal consistency. The coefficient of reliability obtained had alpha values ranging from $\alpha = 0.86$ to 0.92. Most of the questionnaire items were retained while some items within the various subscales had to be reconstructed to improve their

reliability. The data collection instruments were found to be appropriate for the data collection. The Cronbach alpha values that were calculated for the set of questionnaire items in the trainees' questionnaire are reported in Table 3.5.

Table 3.5

Cronbachs' Alpha Reliability Coefficient for Trainees' Questionnaire

Variable	Reliability Coefficient
Influence of relevance of vocational training courses on access to CVETIs	0.73
Influence of training facilities and equipment on access to CVETIs	0.72
Influence of career guidance on access to CVETIs	0.71
Influence of adequate instructors on access to CVETIs	0.71

Table 3.5 shows the Cronbach alpha values were calculated for the set of questionnaire items in the trainees' questionnaire. The results appeared to have a good internal consistency. The coefficient of reliability obtained had alpha values ranging from $\alpha = 0.709$ to 0.726. These statistical values are too close to 1 making the alignment of items fair. Most of the questionnaire items were retained while some items within the various subscales had to be reconstructed to improve their reliability. The data collection instruments were found to be appropriate for the data collection.

3.9 Data Collection Procedure

The researcher was granted approval by the University that issued letter of full registration that enabled the researcher to approach the appropriate agencies in the Country to seek permission to collect data. With this approval, the researcher first applied for research license from National Commission for Science, Technology and Innovation (NACOSTI). He was licensed to conduct research in Makueni County from 9th September 2019 to 9th September 2020 as indicated in the research license (license No. NACOSTI/P/19/1152) as shown in appendix VII. Clearance from the County Commissioner in Makueni County was done on 19th September 2019 who issued a research authorization letter and on the said date an approval by the Chief Education Officer and ICT made. The document is attached as in appendix VIII.

Before the commencement of the research, the researcher had met all the conditions and requirements as per the research license. The above approval marked the beginning of the data collection exercise. The researcher booked appointments with the sampled vocational institutions for piloting. Thereafter the researcher booked appointments with the randomly selected County Vocational Education and Training managers for convenient dates for data collection. Face-to-face method was used to administer questionnaires. Some of the sampled trainees could not respond to the questionnaire items on their own. The researcher read out the items giving clear interpretation in local language. Document analysis and

observation schedule were used to verify the recorded reports and confirm the physical existence of training infrastructure, tools and equipment.

3.10 Data Analysis Techniques

Data analysis is a systematic process where statistical and logical techniques are applied to clean, organize, categorize, analyze and summarize data to enable further analysis and interpretation in order to make statistical inferences or ultimate conclusions (Kothari & Gaurav, 2014). This logical process starts with availing data collection tools, undertaking data collection exercise, cleaning and coding the collected data, analyzing the data, data presentation (visualization) and interpretation. In the analysis process, relationships or differences supporting or conflicting the hypothesis are subjected to statistical tests for significance (Orodho, Khatete, & Mugiraneza, 2016).

The researcher cleaned raw data, coded the data, entered and then analyzed using (SPSS) IBM version 23. Descriptive statistics were generated and used in describing and discussing the research findings without manipulating the respondents' opinion. Standard deviation was used to measure the alignment of responses with the mean and describe the degree of consistency within the responses. A statistical analysis for managers output – independent sample Test for independent variables was done. To compare mean difference between two categorical variables and test of hypothesis, an independent sample t-test was done

at 95% level of confidence. Independent samples t-test compares the means of two independent groups in order to determine whether there is statistical evidence that the associated sample means are statistically different. The T-test was considered to be the most appropriate for this study since the standard deviation was unknown and the sample size for the Managers was less than 30 ($n<30$). This was based on Orodho et.al (2016) who holds that, for a sample size less than 30 and whose population standard deviation is unknown, use of t-test to carry out statistical test for significance is the most appropriate. The preliminary test for normality was done using levene's test for equality. This was based on the argument that, the comparison of sample means is founded on the fact that, the populations in question have a common variance. The method is considered appropriate in one-sample problem since it enables the researcher to find a suitable estimator which has a high efficiency (Gastwirth, Gel, & Miao, 2010).

A statistical analysis for instructors and trainees output whose sample was greater than 30 ($n>30$) was done. In this case, one-way analysis of variance (ANOVA) was used. It was the preferred test on the mean difference between two or more variables for association. The ANOVA was used to test for significant difference between mean of three or more variables between groups and within groups' variations. According to Orodho et.al (2016), ANOVA F-test enables the classification and cross-classification of statistical results to test whether the means of a specific classification have a significant difference. It enabled the researcher to determine whether the given classification significantly affect the results and to test the null

hypothesis that the means of three groups of variables are the same against the alternative hypothesis that not all means are the same, at α =0.05 level of significance to test the null hypothesis (Orodho, Khatete, & Mugiraneza, 2016). Quantitative data from interview and open-ended items in the questionnaire were organized according to themes, coded and integrated with data from closed ended questions. The analyzed data was presented through tabular representation of descriptive statistics tables for each variable. Means, Standard deviations, frequency distribution tables, a pie-chat and a bar graph were used for data presentation. Interpretation and analysis of the findings were subjected to a review by supervisors and peer researchers.

3.11 Ethical Considerations

Alshenqeeti (2014), states that, social studies research involves dealing with human participants which makes it necessary for research project to rigorously follow ethical considerations. It therefore becomes a fundamental concern to adhere to ethical issues throughout the research process. Based on the above, the respondents should therefore provide their informed consent before participating in the research process. The researcher has a responsibility to protect the informants' rights and avoid causing them any social harm.

Cohen et al (2007), considers social studies research as an intrusion into participants' private lives with regard to the sensitivity of the subject matter. This calls for high standards of ethical consideration making the participation to be

entirely voluntary and guaranteeing strict confidentiality and anonymity. The researcher adhered to the following ethical consideration. The researcher obtained research license and authorization from NACOSTI before proceeding to Makueni County commissioner for clearance and got an approval from the County Chief Education Officer. Equitable random selection of human subjects was ensured. The researcher sought for informants' consent before the administration of data collection tool and interviews. The researcher booked dates for the data collection exercise through sending letters and making confirmations through phone calls and text massages. The researcher ensured that all the respondents participated in the study voluntarily. Confidentiality and anonymity of respondents was maintained.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 introduction

The study was set out to investigate the influence of institutional factors on access to CVET institutions in Makueni County. The chapter presents; introduction, questionnaire return rate, analysis of collected data, interpretations based on descriptive analysis, discussion of the research findings and testing of the research hypothesis. The chapter includes background information of the informants and their responses to research questions on the relevance of training courses and access to CVETIs, adequacy of training tools and equipment and access to CVETIs, career guidance and access to CVETIs and lastly, adequacy of competent instructors and access to CVETIs.

4.2 Questionnaire Return Rate

Questionnaire return rate has been defined as the proportion of the questionnaires returned to the researcher by the respondents, after they have been issued or send to them (Fincham, 2008). A sample of 21 County Vocational Education and Training institutions, which are spread over the nine sub-counties in Makueni County was randomly selected for the study. The research was carried out between September 2019 and February 2020, a period that was characterized by heavy rains and floods which made some roads impassable. Despite the vast geographical distribution on the sampled institutions the study was done. Data were collected

from 21(91.3%) managers, 87(56.49%) instructors and 312 (20.7%) trainees. The study used questionnaires, document analysis guide, interview schedule and an observation schedule as tools for data collection. The administration of questionnaires was physically done, which enabled the researcher to collect them the same day. In all cases, the researcher with the help of vocational institution manager visited the workshops and other training facilities to rate them in terms of relevance. The researcher conducted an interview in those cases where the manager had been sampled for the interview. Table 4.1 shows the number and percentage of questionnaire returned by the informants.

Table 4.1

Number of Questionnaire Issued, Returned and (%) Representation

Category of Respondent	questionnaires issued	questionnaires returned	percentage (%) return rate
Managers	21	21	100
Instructors	87	87	100
Trainees	316	312	98.7
Total	424	420	99.06

Data in Table 4.1 indicate that, there was 100% questionnaire return rate for the managers and instructors except for the trainees (98.7 %), where four male trainees could not return their questionnaires. These return rates were computed numerically by comparing number questionnaire returned by the total number of questionnaires

issued to the informants who had been randomly selected and multiplied by 100. As recommended, an approximate of 60% return rate of a representative questionnaire should be a goal for every researcher. Thus, the return rates were greater than 60%. This high return rate was as a result of physical administration of questionnaires to the sampled participants which in effect reduced the chances of not delivering the questionnaire to the target sample of respondents. There were no cases of reluctance of respondents to complete and return the questionnaires as this could be a key contributor to low questionnaire return rates which researchers struggle to avoid (Beruch & Brooks, 2008).

4.3 Demographic Information of Respondents

This section presents individual informants' background information; managers, instructors and trainees. The researcher sought to establish the demographic information of the participants as an introductory information which reveals more about the participants. This was assumed to have an implication on the desired data for this study. The demographic information collected from managers and instructors depicts information about their gender, age, professional qualification as well as their experience in education and training. Demographic information on trainees included gender, age, the grade and their entry behavior. The information was considered paramount based on assumption that, in the larger society some occupations have been regarded as male and female dominated, which significantly determines the representation in access to education and training. Training

programmes targeting either gender are core to realize opportunities that improve an individual's social-economic positions. All the background information of the respondents was obtained.

4.3.1 Demographic Information of Managers

The managers were requested to provide information about their gender, age, professional qualification, administrative experience as well as the length of stay in their current institution. The managers from the sampled vocational institutions were presented with a questionnaire item to capture the data on their gender, age, professional qualification, administrative experience as well as the length of stay in their current vocational institution. The data was considered important since it forms the categorical group for classification and cross-classification for statistical tests. The information obtained is summarized in Table 4.2.

Table 4.2

Distribution of Managers by Gender, Age, Training Qualifications, Administrative Experience, Length of Stay in the Current Institution

	frequency	percentage (%)
Gender		
Male	12	57.1
Female	9	42.9
Age bracket		
40 years and below	12	57.1
41 – 50 years	8	38.1
51 – 60 years	1	4.8
Training Qualifications		
Artisan grade	4	19.0
Diploma	9	42.9
Bachelor's degree	8	38.1
Administrative Experience		
1 – 5 years	5	23.5
6 – 10 years	13	61.9
11 – 15 years	1	4.8
16 years and above	2	9.5
Length of Stay in the Vocational Institution		
Below 1 year	4	19.0
1 – 5 years	12	57.2
6 – 10 years	3	14.3
11 years and above	2	9.5

The data in Table 4.2 reveal that, 12 (57.1%) of the managers in the sampled vocational institutions are male, while 9 (42.9 %) are female. The small margin on gender parity reveals the County Government's efforts to attain gender balance in vocational education institutions administrative positions. Gender balance in administrative positions can be more influential on access to Vocational education and more so to career progression as they are role models to the trainees and the society. As shown in Table 4.2, 12 (57.1%) of the managers were 40 year and below as compared to 8 (38.1 %) managers and 1 (4.8%) of managers aged above 40 years. The managers at the higher age bracket are expected to have served for a long period in VET institutions, which indicated that they are experienced in area of skill development. The lower age bracket comprised (57.1 %) of the managers from the sampled institutions who were promoted or recruited to administrative position during the devolution period based on high qualifications.

Most of this managers were young and were found to have greater understanding about the emerging issues in TVET sub-sector. This information indicate that, the County Government has made an effort to revitalize CVET institutions. Recruitment of young administrators with high training and academic qualifications is a milestone to change the image of TVET. This deliberate effort would improve the quality of management, record keeping, policy interpretation and implementation as well as overall service delivery. The alignment of TVET with the advancing technology, the deliberate effort to support and carry out research in TVET sub-sector is a function of administrators where VET managers

are integral part of the team. They are best placed to work towards improving the relevance of courses offered to promote social economic development. The research also sought to determine the professional qualification of the managers. Professional qualifications of the managers from the questionnaires resulted to the data in Table 4.2. Data in Table 4.2 indicate that, 4 (19.0%) of managers had artisan grade qualifications. The other managers were of higher qualifications. That is diploma holders 9 (42.9%) and bachelor's degree 8 (38.1%). The professional qualifications possessed by the managers are adequate to enable them to make vocational education more attractive and have a new look. As role models, they are able to help the society which for long has been constrained by the historical outlook that VET is inferior as compared to University Education. This outlook has prevailed despite the skill gap in the key areas like plumbing, automobile technologies and civil construction.

The bachelors' degree graduates can bring a sustainable new image of TVET in the society which is not aware of the benefits that TVET opportunities give. In effect these can improve access to TVET, enable the trainees to enroll easily, have a high retention and participation rates which is a fundamental aspect of a successful TVET sector. The data about the administrative experience who participated in the study was captured from the questionnaire. The information was considered important because it has a direct link with the managers' opinion on the issues surrounding trainees' access to vocational education and training. This informs the reliability of the information given by such respondents on their opinion on whether

institutional factors have influence on access to CVETIs. Data in Table 4.2 reveal that, 13 (61.9%) had served in their managerial position for considerable number of years (between 6 and 10 years) in the era of devolved governance. Experienced managers have the capacity to analyze the gains and the prevailing concerns on provision of Competency-Based Training (CBT) and assessment in order to improve the Vocational Skill Development (VSD) whose effect is to make decisive contribution on poverty reduction, increased incomes, life-long earnings, robust social mobility and career progression hence increasing access to CVET institutions through grade-to-grade survival.

Managers were requested in the questionnaire to provide information about the period they have served in their current institutions. Data about the managers' length stay in their current institutions who participated in the study ware captured. The information is considered fundamental because administrators are key players in policy implementation which is time bound. It was assumed that high administrative turnover has a negative impact on policy implementation process since different administrators may have different priorities. Data in Table 4.2 indicate that, twelve (57.2%) of the managers have been administrators in their current vocational institutions for between one and five years. This reflects high administrators' turnover. Administrators' turnover and its long-term impact on VET is of paramount concern. Administrators are mandated to carry out the administrative role to enhance provision of quality services, mobilize training manage the infrastructure, exercise proper human resource management practice

and work towards maintaining consistency in the enrolment rates. High administrators' turnover which brings about short tenure has a negative impact on the training outcomes, can create uncertainty and instability on trainees' access to vocational training which is considered as a fundamental aspect of a successful TVET sub-sector. It is the role of the administrator to strategize on marketing an individual institution to increase its enrolment and compete favorably with the informal training, which has been taking place in most developing countries. The majority of these informal training systems do an apprentice model with hands-on-training being the method of learning. The individuals trained in this informal setup tend to have an adequate base on understanding more about the trades offered.

4.3.2 Demographic Information of Instructors

Instructors were requested to provide their background bio-data. This was meant to establish instructors' characteristics in terms of their gender, age, training qualification, experience in VET and how long they have been in that institution. The data was considered important since it forms the categorical group for classification and cross-classification for statistical tests. Table 4.3 contains a summary of the information obtained.

Table 4.3

Distribution of Instructors by Gender, Age, Qualification, Training experience, Length of Stay in the Current Institution

Gender	frequency	percentage (%)
Gender		
Male	52	59.8
Female	35	40.2
Age bracket		
35 years and below	26	29.9
36 – 40 years	46	52.9
41 – 45 years	13	14.9
46 years and above	2	2.3
Qualification		
Bachelor's Degree	6	6.9
Diploma	26	29.9
Craft certificate	55	63.2
Training experience		
Below one year	3	3.4
1 – 5 years	44	50.6
6 – 10 years	21	24.1
11 years and above	19	21.8
Length of stay in the current institution		
Below 1 year	21	24.1
1 – 5 years	49	56.3
6 – 10 years	12	13.8
11 years and above	5	5.7

The responses by the instructors on gender in Table 4.3 shows that, 52 (59.8 %) were male. This could be attributed to the courses majorly offered in these institutions such as motor vehicle technology, carpentry and woodwork, electrical and electronics, building and construction technology, metal work and fabrication technology and leather work technology which the male respondents had indicated as their area of specialization in the questionnaire and are male-dominated trades. It was observed that, 40.2 % of the informants were female. This was attributed to low number of female instructors in some institutions. It was observed that, in some institutions, there was only one or none present during the data collection date.

Further enquiry about the ratio of the male to the female instructors revealed that, the ratio was guided by the nature and the type of the training courses offered. The female instructors indicated that, they have specialized in female-dominated trade courses, which could lead to very few female trainees enrolling to male-dominated trades. This overlooked the economic and social benefits that can accrue from their participation in such trades. In the long run low female enrolment in male-dominated vocational education and training trade courses could be an indicator to occupational segregation, thus limiting their participation opportunities in the world of work. This findings are supported by a research done in Australia to explore the barriers that limit female participation in the male-dominated trades, which focused on the views of young women. The study found out that, gender stereotype, fear of intimidation, social harassment and cultural, industrial, and economic barriers as key issues that hinder the female entry into male-dominated VET courses (Struthers

& Strachan, 2019). In this study, none of the female instructors indicated that she has specialized in a male-dominated trade. This could lead to gender gap in enrolment hence low access to VET trade courses despite the efforts of feminist advocates to gender equality in the workforce, to increase women participation rates in the labour market. The instructors provided information about their age. They were not required to give their exact biological age but suitable age bracket were constructed to capture the required data. This information was considered important to enable the researcher to make a comparison between the instructors' age bracket and their experience on education and training.

The responses by the instructors on their age, the data in Table 4.3 shows that, 46 (52.9 %) of the instructors were aged between 35 and 40 years. This indicates that, the instructors are mature enough to address the needs of the trainees who will in most cases need mentoring and counseling. At their age and based on experience, they may have organizational skills and sound decision making skills to enable them work with trainees of variety of social, cultural and economic backgrounds. These young people who for long time have been encouraged to aspire to higher status, career opportunities provided by universities and other technical institutions, need mentorship support from their instructors to improve on career progression through grade to grade which increases access to CVET institutions. The instructors were requested to provide a bio-data on professional qualification. This information on instructors' professional qualification was considered paramount. This was based on the fact that, adequately trained instructors improve their training

capacities by equipping them with skills and knowledge, that is considered essential to enable them address the emerging issues and technological advancement in the education and training sector. Data in Table 4.3 indicate that, 55 (63.2%) of the instructors are craft certificate holders, which only enable them to train artisan courses at a lower level below their qualifications. This indicates that, TVETA is yet to implement the trainers' qualification framework in collaboration with Kenya National Qualification Framework (KNQF), in readiness for the implementation of CBET.

The TVET reforms aims at providing market oriented training has put relevance and quality of training courses as its priority. This requires the technical instructors to have undertaken craft/ KNQF level 5 in the technical/ vocational domain and a certificate of an approved Trainer of Trainers (TOTs) (Ministry of Education, 2018). The instructor's qualifications may not be adequate to enable them address the emerging issues and technological advancement in TVET sub-sector. As a result, vocational training will continue being of poor quality and low demand, leading to low enrolment rates in CVET institutions. The data about the instructor's education and training experience who participated in the study were captured from the questionnaire. The instructors' experience was considered an important information for this study based on the assumption that, there is a direct connection between this experience and their opinion on issues surrounding trainees' access to CVET institutions. Data in Table 4.3 reveal that, a majority of the instructors given by 44 (50.6%) had been training for between 1 and 5 years. This implies that, they

have inadequate experience in TVET sub-sector which may be considered inadequate to comprehend the underlying issues on access to CVET institutions. However, information provided by 40 (45.9 %) of the respondents who had trained for more than six (6) years could be reliable enough to draw conclusions based on their opinion. Data about instructors' length of stay in their current institutions who participated in the study were captured. The information is considered fundamental to enable the researcher to create a link between the information provided and the informants' understanding about the issues surrounding vocational training in their institution.

The data in Table 4.3 on instructors' length of stay in their current institution, 49 (56.3 %) of the instructors indicated that, their stay was for a period between 1 and 5 years. This indicates that, a majority of the instructors were newly recruited within the period of devolution as indicated in Table 4.3 where 44 (50.6 %) of them indicated that, they have served as instructors for a period between 1 and 5 years. For those who have been training for less than two years may not have had enough exposure to comprehend the underlying issues surrounding access to vocational education and training institutions.

4.3.3 Demographic Information of Trainees

Trainee's background information was of great significance because it's directly linked to the underlying issues surrounding their enrolment in CVET institutions.

The questionnaire had items to capture the data on trainees' gender, age, level of study and their entry behavior prior to their enrolment in county vocational education and training institution. The data were considered important since it forms the categorical group for classification and cross-classification for statistical tests. Trainees were requested to provide background information in the questionnaire provided. To capture data on the gender of the trainees' respondents in the sampled CVET institutions in Makueni County, some trainees had to be guided. This information was considered important to support the sampling technique where the respondents were given equal opportunities. Data captured from the questionnaire are summarized in Table 4.4.

Table 4.4

Distribution of Trainees' Participants by Gender, Age, Level of Study, Entry

	Frequency	percent (%)
Gender		
Male	154	49.4
Female	158	50.6
Age bracket		
Bellow 15 years	11	3.5
15 – 20 years	204	65.4
21 – 25 years	89	28.5
Above 25 years	8	2.6
Level of training		
Grade III	309	99.0
Grade II	2	1.0
Entry behaviour		
KCPE	214	68.6
KCSE	96	30.8
Artisan Grade III	2	0.6

The data in Table 4.4 reveal that, there was more female respondents 158 (50.6%) who participated in the study than the male respondents. The difference is attributed to the data cleaning process, which made some four questionnaires to be discarded and they were all for the male respondents. The questionnaires had overlapping responses and gaps. The sampling technique employed had given both sex equal opportunity to participate. This was so despite unequal number of gender-

dominated trades in almost all the sampled vocational institutions. The study used a questionnaire item to obtain data on the trainees' age distribution. The information about age bracket of trainees sampled was considered important to confirm the information on trainees' academic level attainment before enrolling to CVET institution. Lower age bracket could represent those trainees who dropped out at Primary level of basic education. This was based on the assumption that, those trainees who didn't transit to secondary level of school to enroll for vocational training at young age than those who enrolled for secondary schooling.

Data in Table 4.4 reveal that, 65.4% of trainees indicated their age to be between 15 and 20 years. Their response implies that, they did not take a long period before joining the vocational institutions after completing their primary or secondary level of education. At this age, the trainees are able to utilize their youthful stage to pursue vocational education and training before engaging in other social-economic responsibilities, which in-turn may directly influence their access to such skill development opportunities. Education and training is considered important at this age as the trainees pursue their dream career. The study carried out an assessment on trainees' levels of training in terms of artisan grades III, II and I, which are offered by vocational institutions progressively. A questionnaire item was constructed to capture the required data which was posed to the trainees. This information was considered important because enrolment to vocational education is either by the trainees who are looking for an opportunity to train at artisan Government Trade Test grade III, grade II or are pursuing artisan grade (I) on career

progression in education and training progression pathway. This kind of training levels was assumed to have directly influence access to CVETIs. Data in Table 4.4 reveal that, 309 (99.0 %) of trainees where in grade test III and only 1.0 % under grade test II. This implies that, the majority of the trainees are not proceeding to the next level after completing grade III. This is an indication that, there is low life-long learning which leads to low levels of skills and knowledge improvement. In effect, this training gap lowers the vocational training graduates' capacities to participate in the job market. The trainees' mobility and vertical progression to obtain a higher vocational skill development increases the enrolment in CVET institutions, which in return may produce competent workforce for the highly competitive economy within and beyond the country's borders.

The questionnaire items presented included an item constructed to assess the trainee's level of schooling before they enrolled for CVET courses. The trainee's entry behavior prior to joining CVET institutions was considered important because it links enrolment to minimum qualifications requirements. It is also used as parameter to measure the attractiveness of vocational training institutions to the KCSE graduates who were considered as the prospective trainees for this study. The trainees were required to select their entry behavior based on the options provided in the questionnaire. Data in Table 4.4 shows that, most of the trainees joined CVETIs after completing their primary level of education (KCPE). This was given by 214 (68.6 %). Only 96 out of the 312 respondents who indicated that, they had joined the vocational institutions after sitting for their secondary level of

education examinations (KCSE). This implies that, the vocational training courses have not attracted the large number of secondary school graduates who scored below minimum entry requirements for crafts, certificate, diploma and degree courses over the years and whose number is increasing annually. Governments initiative for 100% transition from primary to secondary, which has received full support from the majority of the educational stakeholders may make vocational education and training to continue being non-attractive if not re-planned. This is based on the managers' opinion during the interview. The majority of the managers had cited that, primary level graduates over the history of vocational training has been the catchment for their enrolment. This was said to have been affected by the government's directive to ensure that the 100% transition to basic secondary education is fully supported through the *nyumba kumi* initiative.

It was reported that, the area administrative chiefs, assistant chiefs, the ward administrators, the village elders and the *nyumba kumi* leaders are mandated to ensure that, all the primary graduates should join the secondary level of basic education regardless of the marks scored at KCPE. The initiative has influenced enrolment in vocational institutions over the recent years, as the courses offered remain unaligned to the current industrial requirements. They further advocated that, most of the training courses in place today were established with the primary school drop outs and graduates in mind during the era of the village youth polytechnics. To this end, the training courses remain non-attractive to KCSE graduates.

Based on this evidence, vocational education and training needs pre-planning with the KCSE graduates in mind as opposed to its historical establishment. Otherwise it will remain less attractive as the vulnerable KSCE graduates who qualify for enrolment remain with no option for skill development. The cases of unemployment, social evils and drug / substance abuse may remain unaddressed, if these vulnerable young population is not equipped with responsive skills, knowledge, attitudes and competences which are ingredients for resilient social welfare and economic establishment.

4.3.4 Reasons for Trainees' Enrolment in CVETIs

The study sought to establish the levels TVET attractiveness among the youth in Makueni County. A questionnaire item was constructed to collected data on the same. The indicators were constructed to source for key reasons that could have led the trainees to enroll for VET programmes. Table 4.5 contains a summary of the information obtained.

Table 4.5

Descriptive Statistics for Demand for CVETIs Courses

	Mean	SDev	SD %	D %	N.S %	A %	SA %
I enrolled out of encouragement from my peers	3.708	0.846	3.2	8.7	9.3	71.8	7.1
I enrolled because of my desire for vocational skill development	3.711	0.717	1.0	9.0	11.5	75.8	3.5
I enrolled to acquire skills for self-employment	3.808	0.758	1.9	7.4	6.4	76.6	7.7
I enrolled because it was the only training option available	4.048	0.691	1.3	3.2	4.2	72.1	19.2
I enrolled because people with vocational skills are perceived successful in the society	2.298	0.792	6.4	70.8	10.3	11.5	1.0

Key for the mean

Strongly Disagree = 1.0 to 1.7

Disagree =1.8 to 2.5

Not sure = 2.6 to 3.3

Agree =3.4 to 4.1

Strongly Agree =4.2 to 5.0

The data shown in Table 4.5 reveal that, trainees agree at 71.8 percent that they enrolled for their training courses out of encouragement from their peer, 9.3 percent were not sure, 8.7 percent disagreed, 7.1 percent strongly agreed while those who strongly disagreed were represented at 3.2 percent. The item had a mean rating of 3.708 and standard deviation of 0.846. This is an implication that, majority of trainees felt that it was due to peer encouragement that they enrolled for the vocational training courses they are taking.

The data also indicate that, respondents agree at 75.0 percent that their enrolment for their training courses was based on their desire for vocational skills development, 11.5 percent were not sure, 9.0 percent disagreed, 3.5 percent strongly agreed and 1.0 percent strongly disagreed. The item had a mean of 3.711 and a standard deviation of 0.718. Therefore, making a conclusion that most of the respondents do agree that their enrolment for vocational courses training was based on their desire for vocational skills development. The data shown in Table 4.5 indicate that, 76.6 percent of the respondents agree that their enrolment for vocational courses training was based on their desire to acquire vocational skills for self-employment, 7.7 percent strongly agreed, 7.4 percent

represented those who disagreed, 6.4 percent were not sure and 1.9 percent of the informants strongly disagreed. The item had a mean of 3.808 and a standard deviation of 0.758. Most of the informants indicated that they enrolled for vocational courses to acquire vocational skills for self-employment. The results indicate that respondents at 72.2 percent of informants agreed that they enrolled for vocational courses because it was the only training option available, 19.2 percent strongly agreed, 4.2 percent were not sure, and 3.2 percent disagreed while those who strongly disagreed were represented at 1.3 percent. The item had a mean of 4.048 and a standard deviation of 0.690. This indicates that a large number of the trainees enrolled for such courses because it was the only training option available.

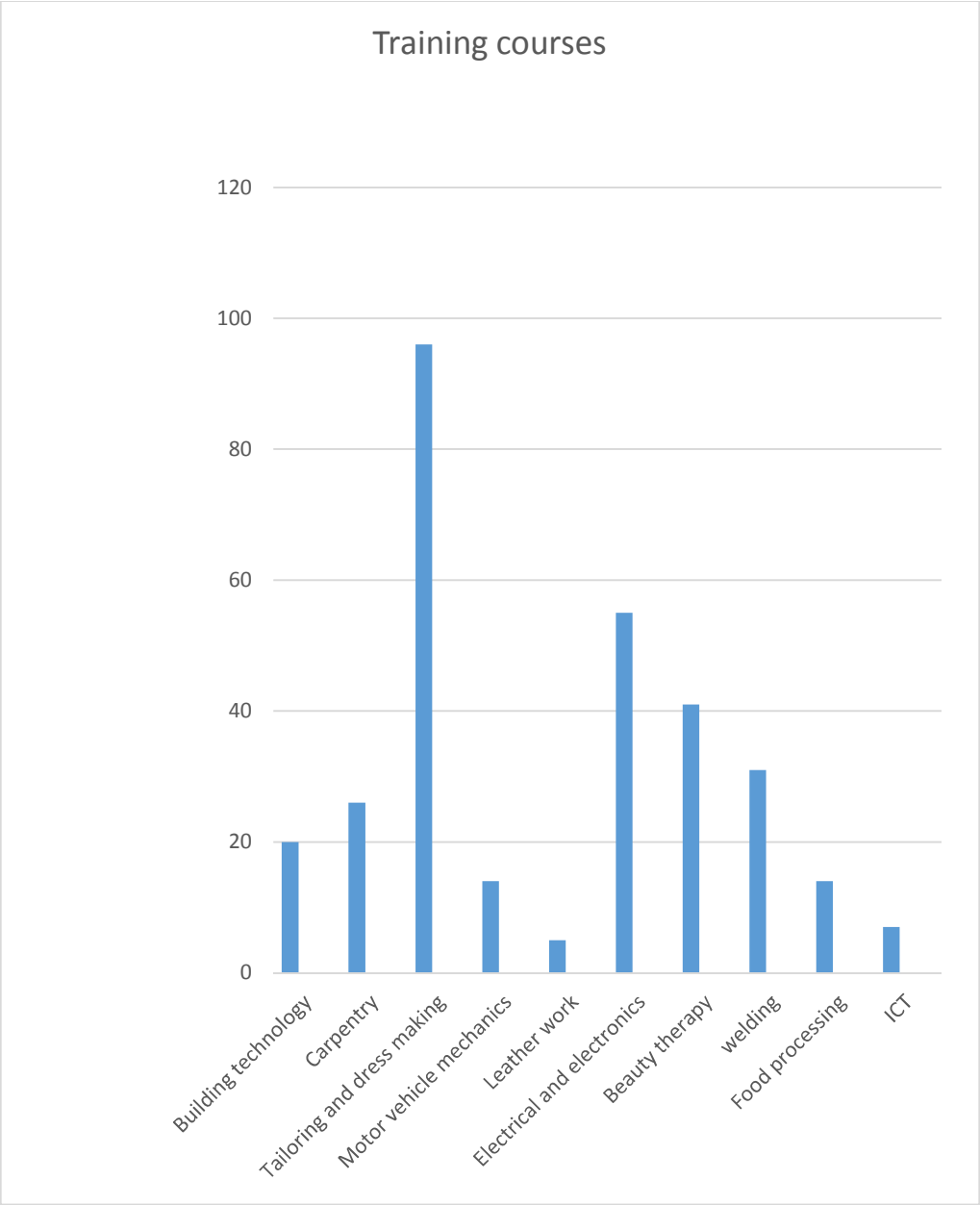
The results indicate that informants at 70.8 percent disagreed that they enrolled for VET training courses because people with VET skills are perceived successful in the society, 11.5 percent represented those who agreed, 10.3 percent were not sure, 6.4 percent represented those who strongly disagreed and 1.0 percent strongly agreed. The item had a mean rating of 2.298 and a standard deviation of 0.792. This is an indication that a large number of trainees decision to enroll for VET was not based on social acceptance of VET skills in the society. It was established that, trainees' enrolment for VET was based on the assumption that, the acquired vocational skills would enable them to engage in self-employment (m = 4.048). Studies have shown that, the acquisition and effective application of relevant vocational skills results to sustainable economic development, enhances social mobility, national cohesion and development. The skills and knowledge that youthful population expect to acquire must therefore be relevant to

the current economy, meet their needs and aspirations while enhancing their economic and social progress (Otero, 2019). The response that, it was the only training option available (m=3.808), was considered to be a valid reason since majority of them were KCPE graduates. Most of the training courses in CVET institutions (formally youth polytechnics) are open to accommodate those who drop out of school at any level any other interested youth interested in VET path way (Ministry of Education, 2019).

A similar number (mean = 3.712) indicated that, they enrolled in VET as a result of their desire for vocational skill development. Peer encouragement was found to have had a contribution to their decision to pursue VET (mean 3.708). The data collection tool had an item constructed to investigate distribution of trainees by the training courses they have registered for in the various areas of specialization. The item required the informants to write the course of training on the space provided. Data collected were, grouped is similar categories and presented in a bar graph. The responses are analyzed in Figure 4.1.

Figure 4.1

Distribution of Trainees by the Courses they are Taking



The data in Figure 4.1 reveal that, tailoring, electrical / electronic had attracted a large number of trainees in sampled CVETIs. Beauty therapy, welding and carpentry were found to have attracted more trainee as compared to leather work, ICT, food processing, and motor vehicle mechanics. Attractiveness of CVET programmes was found to be

courses-specific whereby young population seem to prefer certain vocational training courses to others. The narrowed training curriculum compromises the variety of alternative training options for the prospective trainees to make a choice, which could increase enrolment in VET institutions. A concern to investigate the distribution of trainees by gender on the training courses they have registered for in the various areas of specialization was address through the use of data summarized in Table 4.5. The study analyzed the data by grouping the trainees in terms gender and the course registered for. Table 4.6 contains a summary of the information obtained.

Table 4.6

Courses Taken by Trainees by Gender

Course taken by the trainees	Male	Female	Total
Building technology	100%	0%	100%
Carpentry	100%	0%	100%
Tailoring and dress making	12%	88%	100%
Motor vehicle mechanics	100%	0%	100%
Leather work	100%	0%	100%
Electrical and electronics	96%	4%	100%
Beauty therapy	0%	100%	100%
Welding and lubrication	100%	0%	100%
Food processing	0%	100%	100%
ICT	42.9%	57.1%	100%

The study examined the enrolment in each training course based on gender. From Table 4.6 the study reveal that, most training courses were male-dominated which included; building and technology, carpentry, motor vehicle and mechanics, electrical and electronics, welding and lubrication. The female trainees only dominated in tailoring

and dress making, beauty therapy, food processing and ICT. From this findings, it can be concluded that, most of the training courses in CVETIs are male-oriented thus denying the female counterpart an opportunity to enroll in CVETIs. This concurs with the economic survey report (2019), on enrolment in TVET institutions, which indicated that male trainees' enrolment was higher than the female counterparts in vocational education colleges. The annual report on vocational training colleges indicated a disproportionate increase in 2018 and 2019 where the male trainees increased from 66,984 to 81421 and the female trainees' enrolment increased from 47,594 to 54,129. As indicated in the Economic survey, the transition for male trainees has been higher than the female trainees' transition for the previous five years (Kenya National Bureau of Statistics, 2019).

4.4 Analysis of Research Objectives

This study had four objectives to meet. To help achieve this objectives, four null hypothesis were formulated. The objectives have been paraphrased to form themes for analysis.

4.4.1The Extent to which Relevance of Training Courses have Influenced Access to C V E T Is in Makueni County

Objective 1. To investigate the extent to which relevance of training courses influenced access to C V E T Is in Makueni County. The first objective aimed at assessing whether relevance of education and training courses has an influence on trainees' access CVETIs. This was based on the fundamental concern that, expected training outcomes

are critical in any training system that values the production of competent workforce for the prevailing technological and highly competitive economy. An effort was made to establish whether relevance of training courses in CVET institutions had an influence on their enrolment. The questionnaires yielded data on the influence of quality and relevance on access to CVETIs as summarized in Tables 4.7.

Table 4.7

Relevance of Training Courses and Access to CVETIS

Respondent	YES			NO		
	Frequency	%	valid percent	frequency	%	valid percent
Managers	16	76.2	76.2	5	23.8	23.8
Instructors	71	81.6	81.6	16	18.4	18.4
Trainees	236	75.6	75.6	76	24.4	24.4

From Table 4.7, it can be concluded that the majority of the respondent revealed that the relevance of the training courses has influenced access to CVETIs. This implies that the respondents had an opinion that, relevant courses which meets the job market requirements, the trainees' direct needs and other education and training stakeholders expectations improves their confidence and builds trust in them. The study established that, the optimized realization of the ultimate purpose of vocational training basically measured in terms of the vocational graduate's capacities, influences the vocational graduates' progressive training within and across trade tests facilitating life-long training.

4.4.2 The Relevance of Vocational Training Courses and Access to CVETIs

The analysis includes responses captured from the questionnaires, documentary analysis summery and short interview reports. The first item presented aimed to find out whether the training courses offered influenced access to CVETIs. This item was presented to managers, instructors and the trainees. The assumption was that the respondents in this study were able to provide reliable data about the employability of trainees once they graduate without necessarily undergoing retraining before or after employment. To ascertain whether the training courses had an influence on access to CVET institutions, questionnaire items for managers, instructors and trainees were constructed to capture the information. The rating was given in a scale of 1-5. Table 4.8 contains a summary of the information obtained.

Table 4.8

Managers' Responses on Relevance of Vocational Training Courses

Statement	Mean	SDev	SA %	A %	N.S %	D %	SD %
Courses offered Meets labour market needs.	3.143	1.195	4.8	38.1	4.8	42.9	9.5
The courses offered have attracted more trainees	3.476	1.031	4.8	19.0	4.8	66.7	4.8
The courses offered meets the trainees needs	2.333	1.065	14.3	61.9	4.8	14.3	4.8
The courses offered equips the trainees with technical skills for self-employment	2.476	0.981	4.8	66.7	9.5	14.3	4.8
Vocational education and training has been given prominence at lower levels of schooling	3.619	0.921	4.8	9.5	9.5	71.4	4.8
Vocational education has gained high social acceptance.	3.619	1.203	9.5	9.5	9.5	52.4	19.0

The data shown in Table 4.8 shows that, managers disagreed at 42.9 percent that the courses offered meets labour market needs, 38.1 percent of them agreed, 9.5 percent strongly disagreed while those who strongly agreed and not sure both at 4.8 percent. The item had a mean rating of 3.143 and standard deviation of 1.195. This can imply that, majority of the managers feel that the courses offered does not meet the labour market needs. The results also indicate that, respondents disagree at 66.7 percent that the courses offered has attracted more trainees, 19.0 percent of them agreed, while those who strongly agreed, strongly disagreed and not sure were represented at 4.8 percent. Item mean = 3.476. Standard deviation of 1.031. From the data, a conclusion can be made that most of the managers do not agree that the courses offered has attracted more trainees.

The data indicate that, 61.9 percent of the managers agree that courses offered meets trainee's needs, 14.3 percent represented both those who strongly agreed and disagreed respectively. Those who strongly disagreed were represented by 4.8 percent which the same percent was representing the informants who were not sure. Item (mean = 2.333). Standard deviation =1.065. Most of the informants indicated that the courses offered do meet the trainee's needs. The results indicate that respondents at 66.7 percent of informants agreed that the courses offered equips the trainees with technical skills necessary for self-employment, 14.3 percent disagreed, 9.5 percent were not sure while those who strongly disagreed and strongly agreed were both represented at 4.8 percent. The item had a mean of 2.476 and a standard deviation of 0.981. A conclusion can be made that majority of respondents feel that courses offered do equip the trainees with

technical skills necessary for self-employment. The results indicate that informants at 71.6 percent disagreed that vocational education and training has been given prominence at lower levels of schooling, 9.5 percent represented those who were in agreement and not sure, strongly disagreed and strongly agreed were both represented at 4.8 percent. The item had a mean rating of 3.619 and a standard deviation of 0.921. The majority of the respondents feel VET has not been given prominence at lower levels of schooling.

The results also indicate that, respondents disagree at 52.4 percent vocational education has gained high social acceptance, 19.0 percent strongly disagreed while those who strongly agreed, agreed and not sure were all represented at 9.5 percent. The item had a mean of 3.619 and a standard deviation of 1.203. This data leads to a conclusion that, most of the respondents feel that vocational education has not gained high social acceptance. The instructors' responses on relevance of vocational training courses are summarized in Table 4.9.

Table 4.9

Instructors' Responses on Relevance of Vocational Training Courses.

Statement	Mean	SDev	SA %	A %	N.S %	D %	SD %
The courses offered meets labour market needs	3.012	1.186	2.3	50.6	2.3	33.3	11.5
The courses offered has attracted more trainees	4.023	0.628	0.0	4.6	4.6	74.7	16.1
The courses offered meets the trainee's needs	2.207	0.865	8.0	79.3	1.1	6.9	4.6
The courses offered equips the trainees with technical skills necessary for self-employment	2.230	0.758	4.6	81.6	1.1	11.5	1.1
Vocational education and training has been given prominence at lower levels of schooling	3.770	0.773	2.3	8.0	5.7	78.2	5.7
Vocational education has gained high social acceptance.	3.517	0.887	3.4	12.6	16.1	64.4	3.4
Valid N= 87							

The data shown in Table 4.9 indicate that, instructors agree at 50.6 percent that the courses offered meets labour market needs, 33.3 percent of them disagreed, 11.5 percent strongly disagreed while those who strongly agreed and not sure both at 2.3 percent. The item had a mean rating of 3.012 and standard deviation of 1.186. This is an implication that majority of the mangers feel that, the courses offered meets labour market needs. The data also indicate that, respondents disagree at 74.7 percent that the courses offered has attracted more trainees, 16.1 percent of them strongly disagreed,

while those who agreed and not sure both represented at 4.6 percent. The item had a mean of 4.023 and a standard deviation of 0.628. Therefore, the data leads to a conclusion that, most of the respondents do not agree that the courses offered has attracted more trainees. The results indicate that 79.3 percent of the instructors agree that the courses offered meets the trainee's needs, 8.0 percent strongly agreed. Those disagreed as represented by 6.9 percent, 4.6 percent representing those who strongly disagreed while 1.1 percent of the informants were not sure. The item had a mean of 2.207 and a standard deviation of 0.865. Therefore, most of the informants indicated that the courses offered do not meet the trainee's needs.

The results indicate that, respondents at 81.6 percent of informants agreed that the courses offered equips the trainees with technical skills necessary for self-employment, 11.5 percent disagreed, 4.6 percent strongly agreed while those who strongly disagreed and not sure were both represented at 1.1 percent. The item had a mean of 2.230 and a standard deviation of 0.758. Hence, a conclusion that majority of respondents feel the courses offered do not equip the trainees with technical skills necessary for self-employment. The results indicate that, informants at 78.2 percent disagreed that vocational education and training has been given prominence at lower levels of schooling, 8.0 percent agreed, those who strongly disagreed and not sure were both represented at 5.7 percent while those who strongly agreed at 2.3 percent. The item had a mean rating of 3.770 and a standard deviation of 0.773 this is an indication that, majority of the respondents feel that VET has not been given prominence at lower levels of schooling. The results also indicate that respondents disagree at 64.4 percent

vocational education has gained high social acceptance, 16.1 percent were not sure, 12.6 percent agreed while those who strongly agreed and strongly disagreed both represented at 3.4 percent. The item had a mean of 3.517 and a standard deviation of 0.887. Therefore, it can be a concluded that, most of the respondents feel that vocational education has not gained high social acceptance. The trainees' responses on relevance of vocational training courses are reported in Table 4.10.

Table 4.10

Trainees' Responses on Relevance of Vocational Training Courses

Statement	Mean	SDev	SA %	A %	N.S %	D %	SD %
The courses offered meets labour market needs	2.400	1.257	26.3	42.6	1.0	25.1	5.1
The courses offered has attracted more trainees	3.949	0.944	4.2	7.1	1.0	65.4	22.4
The courses offered meets the trainee's needs	1.968	0.684	17.0	76.3	0.6	5.1	1.0
The courses offered equips the trainees with technical skills necessary for self-employment	2.016	0.784	17.0	74.7	0.6	5.1	2.6
Vocational education and training has been given prominence at lower levels of schooling	3.888	0.678	1.9	4.2	5.1	80.8	8.0
Vocational education has gained high social acceptance.	3.928	0.526	1.0	2.9	3.5	88.1	4.5
Valid N= 87							

The data shown in Table 4.10 shows that, trainees agree at 42.6 percent that the courses offered meets labour market needs, 26.3 percent of them strongly agreed, 25.0 percent disagreed, 5.1 strongly disagreed and not sure at 1.0 percent. The item had a mean rating of 2.400 and standard deviation of 1.257. This is an implication that majority of the informants feel that, the courses offered meets labour market needs. The descriptive statistics results also indicate that respondents disagree at 65.4 percent that the courses offered has attracted more trainees, 22.4 percent of them strongly disagreed, 7.1 percent agreed, 4.2 percent agreed and those who were not sure were represented at 1.0 percent. The item had a mean of 3.949 and a standard deviation of 0.944. Therefore, the descriptive statistics results making a conclusion that most of the respondents do not agree that the courses offered has attracted more trainees.

The data shown in Table 4.10 indicate that, 76.3 percent of the respondents agree that the courses offered meets trainee's needs, 17.0 percent strongly agreed. Those disagreed as represented by 5.1 percent, 1.0 percent representing those who strongly disagreed while 0.6 percent of the informants were not sure. The item had a mean of 1.968 and a standard deviation of 0.684. Therefore, most of the informants indicated that the courses offered do not meet trainee's needs. The results indicate that respondents at 74.7 percent of informants agreed that the courses offered equips the trainees with technical skills necessary for self-employment, 17.0 percent strongly agreed, 5.1 percent disagreed , while those who strongly disagreed were represented at 2.6 and 0.6 percent of the informants were not sure. The item had a mean of 2.016 and a standard deviation of 0.784, which indicates that majority of the respondents feel that the courses offered do

not equip the trainees with technical skills necessary for self-employment. The results indicate that, informants at 80.8 percent disagreed that vocational education and training has been given prominence at lower levels of schooling, 8.0 percent strongly disagreed, 5.1 were not sure, 4.2 agreed and those who strongly agreed were represented at 1.9 percent. The item had a mean rating of 3.889 and a standard deviation of 0.678 which indicates that majority of the respondents feel that VET has not been given prominence at lower levels of schooling.

The results also indicate that, respondents disagree at 88.1 percent vocational education has gained high social acceptance, 4.5 percent strongly disagreed, 3.5 were not sure, 2.9 percent agreed and those who strongly agreed were represented at 1.0 percent. The item had a mean of 3.928 and a standard deviation of 0.526. Therefore, it can be concluded that, most of the respondents feel that vocational education has not gained high social acceptance. Summary of informants' responses on the relevance of vocational training courses is reported in Table 4.11.

Table 4.11

Summary of Informants' Responses on the Relevance of Vocational Training Courses

Statement	Managers			Instructors			Trainees			overall
	N	Mean	Std. deviation	N	Mean	Std. deviation	N	Mean	Std. deviation	**Mean**
i). The courses offered by the institutions meets the labour market requirements	21	3.143	1.195	87	3.012	1.186	312	2.400	1.256	**2.851**
ii). The courses offered have attracted more trainees hence increasing the enrolment	21	3.476	1.031	87	4.023	0.638	312	3.949	0.944	**3.816**
iii).The courses offered meets the trainee's needs. eg. employability skills	21	2.333	1.065	87	2.207	0.865	312	1.968	0.684	**2.169**
iv).The courses offered equips the trainees with technical skills necessary for self-employment	21	2.476	0.981	87	2.230	0.758	312	2.016	0.784	**2.241**
v).Vocational education has been given prominence at lower levels of schooling	21	3.619	0.921	87	3.770	0.773	312	3.888	0.678	**3.759**
vi).Vocational education has gained high social acceptance by the community	21	3.619	1.203	87	3.517	0.887	312	3.923	0.526	**3.686**
valid N (list wise) N = 420	N=21			N=87			N=312			**3.087**

Table 4.11 summarizes Managers', Instructors' and Trainees' responses on the relevance of training courses and access. The summary presented in Table 4.11 shows that, the majority of the informants indicated that, the training courses offered by the CVET institutions does not meet the job market requirements. The item had an average mean of 2.851. It was revealed that, the courses have not attracted more prospective trainees at an average mean of mean 3.816 who meet the minimum admission requirements. This implies that, the courses which were established long before, have not kept the phase of advancing technology in the labour market hence could be a contributor to low enrolment in most CVET institutions making them to remain non-attractive.

To ascertain whether the courses met trainees' needs, the data captured in the questionnaires indicated that, the informants were in agreement (mean = 2.169) that, the coursed meet trainees' needs. In this study, trainees' needs emphasized on were, the acquisition of soft skills, social skills, development of self-confidence and the ability to practice the skills they are expected to develop. This could be attained through provision of repeated opportunities to practice the technique which calls for more training resources. This kind of response brought a contradictions to their previous response on whether the courses offered meets the labour market demands. It can be concluded that, a training programme that does not increase the graduates' employability in both formal and informal sector, will also be difficult to produce goods of the industrial nature that may meet the market demand in both sectors. Even though the informants had the opinion that, the training courses equip

the CVET graduates with skills for self-employment (mean =2.241). The study findings are in support to the challenges currently facing TVET in Kenya as outlined in Sessional paper No 1 of 2019 on a policy framework for Reforming Education and Training for sustainable Development in Kenya. The document states that, the TVET graduates suffer a deficiency in the competences required for efficient participation in the industry. It is evident that, quality training in TVET is significant for TVET graduates to participate productively in the industry (Ministry of Education, 2019).

Cathleen et al (2014), in their study conducted under CEDEFOP in 32 Countries in Europe on the attractiveness of TVET indicated that, once the quality of VET is assured its likely to attract the attention of learners and the esteem TVET stakeholders. This was based on the fact that, the structure of the industry largely determines attractiveness of VET. The study further states that, by improving its quality and formulation of relevant training programmes which meet the labour market needs creates a positive perception about the value of VET and the likelihood of finding an employment. In this study, the training gaps identified in the training programmes is an indicator that, the trainees does not acquire relevant skills to participate in the production industry. The document analysis on the various training courses revealed that, they cover basics which may not address industry needs. The training model then makes vocational training courses non-attractive leading to low enrolment and making trainees to seek for training alternatives in the informal sector as it was revealed by 12 managers who were

interviewed. The study established that CVET courses are no attractive enough to have a positive impact on the institutes' enrolment at all levels of training. This kind of response overlooks the training gap pointed out in the first two responses and may hinder the instructors' recommendations on improving CVET courses, which are expected by design to meet the labour market requirements and in line with the ever-changing technological economy to make them more attractive for prospective trainees. A higher percentage of the trainees sampled from various CVET institutions indicated that, they were satisfied with vocational training courses being offered. Trainees had the opinion that, the courses meets labour market requirements, their individual needs and after completion they felt that they can engage themselves in self-employment economic activities.

A majority of the trainees had observed that, the course were not attractive since enrolment in almost all the vocational institutions was low except a few. This raises questions why low enrolment in vocational centres if the courses meets labour market demands, meets individual trainee's needs and can equip them with technical skills for self-employment in the prevailing economic environment. The trainees' expectations are narrowed to the kind of training model they are subjected to. With limited knowledge about the labour market requirements, graduates may get frustrated once they face the reality in the job market which may discourage their career progression. The findings of this study indicates that VET in Makueni County is yet to realize a wide range of benefits realized in the European labour market were vocational qualification constitutes about 60% of all the middle level

qualification (Cathleen, Raffe, Georg, Ammerman, & Watters, 2014). To realize these benefits, the training courses should equip the vocational training graduates with vocational skills that are acceptable to the employers and responsive to the industrial requirements. Their responses on whether VET has been given prominence at lower levels of schooling was negative with a mean of 3.759. This was an indication that, the learners at the basic education level of schooling are inadequately prepared to choose the vocational education and training pathway as they progress in their schooling at their young age. Such unpreparedness may influence' readiness to gather information on technical education and training which in an important ingredient needed to make a career choice.

4.4.3 Managers' Responses on the Period that the Institutions have been Offering the Training Courses

To ascertain whether the training courses offered by CVETIs are the same courses which were offered by the village youth polytechnics, which by design could meet the needs of KCPE graduates and other primary level of schooling dropouts. An enquiry was made from the Managers only. The underlying assumption was that, the information required was too administrative such that the instructors and the trainees were not in apposition to provide reliable responses on the item. The questionnaire item yielded the information summarized in Table 4.12.

Table 4.12

Managers' Responses on how long the Institution has Been Offering the Courses

Period	frequency	percent	cumulative. Percent
5 – 10 years	4	19.0	19.0
11 – 15 years	3	14.3	33.3
16 – 20 years	1	4.8	38.1
21 – 25 years	2	9.5	47.6
Above 25 years	11	52.4	100.0
Total	21	100.0	

Table 4.12 indicates that, 11 or 52.6 of the Managers indicated that the vocational institutions have been offering these training courses for more than twenty five (25 years). The key concern was to establish whether the training courses have been aligned with the changing technology to address the training gaps which makes the TVET graduates face challenges in the process of seeking employment opportunities for a meaningful earnings. To capture this information a questionnaire item was constructed for the managers and instructors only. It was assumed that, the trainee could not have information about the alignment of the training courses and therefore they were exempted. The data captured from the managers and instructors are summarized in Table 4.13.

Table 4.13

Responses on the Alignment of Training Courses with the Changing Technology

Respondent	YES		NO	
	Frequency	%	frequency	%
Managers	3	14.3	18	87.5
Instructors	4	4.6	83	95.4

Data in Table 4.13 indicate that, more than 85 % of the informants revealed that, the vocational training courses have not been aligned with the changing technology. This implies that the vocational institutions are unable to offer market oriented training to generate a work force with the right knowledge, skills and appropriate attitudes to enhance the graduates' capacity to competitively participate productively and sustain the job opportunity.

The quality of skill development has a significant impact on the nation's capacities which can only be realized by the nations that invest in post-secondary education. The type of training that meets labour market requirements is one which is based on research. Labour market needs assessment has not been supported in Kenya to align the training programmes with the ever-changing industrial requirements. It has been observed that the TVET sub-sector is facing inadequate research support services (Ministry of Education, 2019).

4.4.4 Responses on the Development of the Training Courses

The study aimed at investigating what exactly informed the development of the training courses offered by the sampled vocational institutions. An item was presented to the managers and instructors only to indicate whether the development of the training courses was based on industrial needs, where training courses are developed with close link and participation between the employers and the training institutions to offer market oriented training, or social demand where every geographical administrative division wishes to have their own vocational education and training institution and offer just similar training courses as offered by the other vocational institutions elsewhere. The questionnaire yielded the information summarized in Table 4.14.

Table 4.14

Development of the Training Courses

Respondent	industrial needs		social demand		existing courses	
	frequency	(%)	frequency	(%)	frequency	(%)
Managers	0	0.0	14	66.7	7	33.3
Instructors	0	0.0	76	87.4	11	12.6

Data in Table 4.14 indicate that, more than 66.0% of the respondents had the opinion that the training courses being offered were based on social demand and

not in any way linked with the industrial requirement. This implies that, the employers are not part of the course development and therefore to a large extent the courses may not equip the graduates with market oriented skills and appropriate attitudes which are the ingredients needed for individual and national development. Though the trainees are awarded certificates at the completion of the training process, their employability remains a dream. It can be concluded that the findings of objective 1 shows that the relevance of the training programmes in CVET institutions in Makueni County has led to low enrolment. There exists training gaps since the training courses which in most cases have been offered for more than twenty five years have not been aligned with the advancing technology. This has compromised the CVET graduates' capacity to participate competitively in the labour market and their capabilities to produce goods of industrial nature in the informal sub-sector.

Makueni County Government's proposal to enhance the quality of training in the county through establishment of technical institutions with relevant training facilities and equipment, introduction of labour market-driven training programmes, recruitment of well-trained instructors and sustain the same for more technical institutions by the year 2025 has remained a good dream (County Government of Makueni, 2016). These had not been actualized by the year 2019 when the researcher was collecting data for this study. The county government had proposed to establish six model CVETIs to offer specialized and market-oriented courses. When the researcher visited these institutions, nothing had been done to

upgrade this institutions. In fact one of the proposed institution's infrastructure is dilapidated to an extent that the institution's manager during a brief interview indicated that the surrounding primary schools and secondary schools are better by far and it may not be possible to attract the prospective trainees. The study found out that, the CVETIs recorded very low enrolment rates which can be attributed to the obsolete training courses offered.

4.4.5 Transition Rates from Secondary School to CVETIs from 2015 – 2019

Transition rates were considered paramount for this study. Data was required to make justification on issues of enrolment in CVET institutions in Makueni County. To capture the required data a questionnaire item was constructed and administered to the managers. The informants were required to give data on enrolment for a period of five years starting from 2015 to 2019. Transition rates were considered critical to provide information on the degree of access to CVET institutions in Makueni County.

Transition rates are considered as an indicator of access. A high transition rates would represent high level of access to CVET institution as opposed to low transition rates. To establish these, the managers were asked to indicate the number of trainees enrolled for artisan courses grade III from the year 2015 to 2019. The data obtained was used to calculate the transition rates by computing the ratio of trainees enrolled to grade III in a certain year divided by the number of KCSE

graduates who scored grades D plain and below in the previous year. The results were summarized in Table 4.15.

Table 4.15

Enrolment of Trainees in the Sampled Vocational Institutions between 2015 and 2019

Institution	Year	2015		2016		2017		2018		2019		capacity
	Established	1st yrs	2nd yrs	1st yrs	2nd yrs	1st yrs	2nd yrs	1st yrs	2nd yrs	1st yrs	2nd yrs	
Nduluku	(1976)	141	165	137	165	128	127	91	108	82	88	450
Ngwata	(1985)	152	142	118	98	146	116	131	126	50	122	350
Enzai	(1984)	100	50	93	56	129	91	29	129	39	26	350
Kathonzweni	(1976)	161	140	140	161	182	127	104	182	37	104	500
Nziu	(1982)	181	164	178	164	228	167	57	227	87	55	700
Ng'etha	(2009)	42	35	35	41	39	28	68	39	40	63	130
Spring hill	(2008)	29	27	29	43	44	26	127	44	106	123	300
Kako	(1999)	13	12	13	11	15	12	19	15	14	17	150
Ukia	(2008)	35	28	31	29	36	26	31	36	13	17	300
Isovya	(1984)	88	64	98	64	95	74	33	95	54	28	200
Utangwa	(1978)	38	36	40	38	44	37	131	44	50	122	500
Tulimani	(1993)	36	8	57	9	62	47	34	52	32	30	300
Kakuswi	(2009)	20	17	21	16	50	20	18	47	14	14	100
Kauti	(1999)	10	4	12	8	51	3	04	51	11	04	200
Kisingo	(1979)	80	48	74	52	61	74	26	61	63	26	250
Kyemwole	(2014)	15	11	25	11	35	26	13	35	8	13	150
Ukaatuni	(2009)	25	30	25	46	25	25	23	25	22	23	200

Mwea	(2007)	8	9	8	9	20	7	12	20	16	12	80
Makueni	(2009)	168	104	84	68	76	64	33	56	50	28	350
Mavindini	(2010)	36	46	46	34	39	41	29	56	20	26	250
Uvileni	(2014)	26	24	25	25	16	20	17	10	16	09	100
Total		1404	1166	1289	1147	1581	1158	1030	1458	826	950	5910

Data in Table 4.15 shows that, the trainees' enrolment from sampled vocational institutes has been declining at a very high rate since the year 2015. A significant increases in enrolment was noted in the year 2017 of 22.65%. This growth is still low compared to the number of prospective trainees who graduate annually from secondary school level of basic education who don't meet the minimum diploma and degree programme requirements. In the previous year, it is noted that the enrolment declined by 8.2 %. In the year 2018 and 2019 the decline was 34.85 % and 19.8 % respectively. The projected capacity was noted to be 5910 which is purely based on space available but not the available training materials and equipment. Nationally, the enrolment in the entire TVET sub-sector has been indicated to have grown by 92.5 % from 148,009 in 2013 to 284,844 in 2018 (Ministry of Education, 2019).

The data in Table 4.15 indicate that, there are some institutions with a very low enrolment. It can be seen that, majority of the institutions had less than fifty (50) trainees. This indicate that, their capacity has been underutilized. It is worth to note that, Kauti CVET institution had only 15 trainees and has a capacity of two hundred (200) trainees. Generally, 76% of the institutions have recorded a very low enrolment in the previous five years. The low enrolment is an indicator that, there is a serious problem in TVET sub-sector which calls for further investigation. The findings of this study are in line with the documented challenges outlined in Makueni County Vision 2025, which indicated that, the county had 108 CVETIs with a total enrolment of 2,929 trainees and 204 instructors. The CVETIs had an

average of two instructors each in 2016. This is extremely low and is a major contributor to low quality training offered by the institutes. Moreover, most of the institutes are poorly equipped and have inadequately trained instructors giving rise to a high number of under trained graduates who fail to meet the current market demand (County Government of Makueni, 2016). It was established that, out of the 108 vocational institutions, only 37 institutions were operational. During the period 2017 and 2018, the county carried out facelift of one CVETI, renovated two CVETIs, constructed workshops in 2 CVETIs. It also supplied electricity and clean water to 4 CVETIs in the effort to promote quality training in Vocational Training and increase the enrolment (Government of Makueni County, 2018).

The study sought to investigate the transition rates for a period of five years (from 2015 to 2019). A comparison between the enrolment in the sampled vocational institutions and the number of prospective trainees over a period of five years was made. Secondary data from Makueni County Education Office were collected to find out the number of KCSE graduates who had scored a mean grade of D plain and bellow, for the period between 2015 and 2019. This information was considered necessary because it reflects the number of trainees who have not enrolled for vocational education and training in public CVETIs in the county. The data captured were analyzed and tabulated in Table 4.16.

Table 4.16

Transition Rates From 2015 – 2019

Year	KCSE grade D and below	enrolment 1st years in CVETIs	transition rates
2014	4,827	-----	------
2015	5,195	1,404	0.291
2016	10,938	1,289	0.248
2017	12,835	1,581	0.145
2018	12,321	1,030	0.080
2019	--------	826	0.067

Table 4.16 indicate an average transition rate in the county for the last five years to be 0.1661. This implies that, 83.39% of the KCSE graduates who were considered to be prospective trainees failed to join CVETIs during the period of this study. During the study it was established, the entry requirement for enrolment in CVET were the same requirements for the enrolment in Technical Training Institutions (TTIs) which are offering the same artisan courses. It was established that these TTIs are well established than, the CVETIs hence making them more preferred than the former youth polytechnics. Table 4.15 indicated that, 68.6% of trainees who participated in the study were KCPE graduates as compared to 30.8

% KCSE graduates. Based on this findings, the transition rates for KCSE graduates could assume a lower percentage. With the continued campaigns for 100% transition from primary to secondary level, the enrolment in CVETIs is projected to continue decline as their catchment area continues to shrink. The findings of the study outlines TVET as a less preferred option in education and training as compared to academic education. This could continue promoting poor perception and less social recognition of TVET as an alternative pathway to higher education and training. This may hinder its development and adversely affect its choice by prospective trainees leading to low access.

The only option left is to enroll from the community for the open courses as observed by the county director, department of Education, Sports and ICT, Directorate of Technical Training. In his opinion, the CVETIs will continue facing the challenges of low access as long as they are not well established to compete favorably with similar institutions offering related vocational courses. He cited inadequacy of funds to equip the institutions as the key contributor to their poor state, which has made them become non attractive and continued offering outdated artisan courses using outdated tools and equipment.

4.5 Adequacy of Training Facilities and Equipment and Access to CVETIs

Objective 2. To assess the extent to which adequacy of training facilities and equipment influences access to CVETIS.

To assess the extent to which these institutional factors influenced access to CVETIs, six questionnaire items were presented to managers, instructors and trainees. To establish whether the adequacy of training facilities and equipment had influenced access to CVETIs, a questionnaire item was posed to the managers, instructors and trainees. The data on whether adequacy of training facilities and equipment had an influence on access to CVETIs is summarized in Table 4.17.

Table 4.17

Influence of Training Facilities and Equipment on Access to CVETIs

Respondent	YES			NO		
	Frequency	%	valid percent	frequency	%	valid percent
Managers	16	76.2	76.2	5	23.8	23.8
Instructors	58	66.7	66.7	29	33.3	33.3
Trainees	278	89.1	89.1	34	10.9	10.9

Table 4.17 indicates that, more than 65 % of managers, instructors and trainees reveal that, the adequacy of training facilities and equipment is a key contributor to access to CVETIs. The findings supported a research done by Agunda (2015), on the influence of teaching-learning resources on transition rates of diploma students where the findings of their study indicated that, adequate training facilities and physical infrastructure significantly promote demand for TVET which increases the levels of enrolment in the vocational institutions. The study was concerned to

establish whether the vocational institutions do provide adequate training materials to trainees for practical course work. The questionnaire item to capture the information was posed to managers, instructors and trainees. Table 4.18 contains the summary of the information obtained.

Table 4.18

Provision of Training Materials to Trainees

Respondent	YES			NO		
	Frequency	%	valid percent	frequency	%	valid percent
Managers	8	38.1	38.1	13	61.9	61.9
Instructors	13	14.9	14.9	74	85.1	85.1
Trainees	55	17.6	17.6	257	82.4	82.4

The data from Table 4.18 shows that, most of the sampled vocational institutions do not provide adequate training materials to the trainees. Taking the responses provided by the trainees and instructors given by 257 or 82.4 % and 74 or 85.1 % respectively shows that, there is a big problem on the provision of training materials. The responses were confirmed through document analysis where the researcher requested for a copy of the admission letter for the year 2019. In most cases, most of the vocational institutions had included a long list of training materials to be brought by the trainees as they report for admission. The training

materials and tools were based on the course that, the trainee had been placed to train. The findings of this study were in support to the outlined status of TVET institutions in sessional paper No 1 of 2019 on A Policy Framework for Reforming Education and Training for Sustainable Development in Kenya. It has been observed that, despite the Government's efforts and commitment to address perennial challenges facing the TVET sub-sector, there is limited customized training and learning materials (Ministry of Education, 2019). It was observed that, trainees are required to buy training materials based on their area of training.

The cost of these materials increases the cost of training which could be a barrier to those prospective trainees who could not afford to purchase them in addition to uniform, other personal effects and the training fees. The increased costs of education and training reduces the demand for education which in the long-run leads to low enrolment as only those who are able can enroll for the training. To find out where the trainees get the training materials from in a situation where the institution does not provide, a questionnaire item was constructed to capture the information. Table 4.19 contains the summary of the information obtained.

Table 4.19

Sources of Training Materials if not Provided by the Institution

Respondent	buy		learn theory only		use what is available	
	Frequency	%	frequency	%	frequency	%
Managers	5	23.8	0	0.0	8	38.1
Instructors	33	37.9	0	0.0	41	47.1
Trainees	169	54.2	70	22.4	73	23.4

Table 4.19 shows that, 38% of the managers and 47.1% of the instructors reveal that, in a situation where the vocational institutions do not provide adequate training materials, they use what is available for practical course work. There is a common practice in most of the institutions where, the trainees taking building technology could construct a building structure and destroy the same to obtain the materials for another group to use the same during their practical training session. The trainees' response was disheartening where 169 or 54.2 % out of 257 who had indicated that, the institution do not provide adequate training materials indicated that, truly they buy the required materials. Due to increased costs of the materials and their diversified economic backgrounds, it was disclosed by the managers who were interviewed that, not all trainees manage to buy the said materials and they end up skipping practical sessions and in the long-run they drop out. They called for support to address the issue.

4.5.1 Responses on Adequacy of Training Facilities and Equipment in the Vocational Institutions

To determine the extent to which infrastructure related factors influenced access to CVETIs, five questionnaire items were presented to managers, instructors and the trainees. They were required to rate the five statements constructed to assess the contribution of adequacy and relevance of training facilities and equipment on access to vocational training in Makueni County. This was based on a Likert scale 1 - 5. The responses for the managers, instructors and that of the trainees were combined and presented in a single table. Data captured were analyzed and presented in Table 4.20.

Table 4.20

Managers' Responses on the Relevance of Training Equipment

Statement	Mean	SDev.	SA %	A %	NS %	D %	SD %
There is adequate training Tools and equipment	2.857	1.062	4.8	33.3	4.8	57.1	0.0
There is well equipped Workshops	2.667	1.111	4.8	28.6	0.0	61.9	4.8
There is well equipped libraries	2.333	1.065	4.8	14.3	4.8	61.9	14.3
The training equipment are technologically relevant	2.238	0.995	4.8	9.5	4.8	66.7	14.3
the institution provides a variety of equipment choices	2.429	1.028	4.8	9.5	4.8	66.7	14.3
Valid N= 21							

The data shown in Table 4.20 shows that, managers disagree at 57.1 percent that there is adequate training tools and equipment, 33.3 percent of them agreed, while those who strongly agreed and not sure were both represented at 4.8 percent. The item had a mean rating of 2.857 and standard deviation of 1.062. This is an implication that, majority of the respondents feel that there is no adequate training tools and equipment. The data also indicate that, respondents disagree at 61.9 percent that there is well equipped workshops, 28.6 percent of them agreed, while those who strongly disagreed and strongly agreed at 4.8 percent. The item had a mean of 2.667 and a standard deviation of 1.111. Therefore, based on these findings

a conclusion was made that, most of the respondents do not agree that there is well equipped workshops. The data in Table 4.20 indicate that, 61.9 percent of the respondents disagree that, there is well equipped libraries, 14.3 percent strongly disagreed and agreed respectively. Those who strongly agreed and those who were not sure both represent at 4.8 percent. The item had a mean of 2.333 and a standard deviation of 1.065. Therefore, most of the informants indicated that, there are no well-equipped libraries.

The results indicate that, respondents at 66.7 percent of informants disagreed that the training equipment are technologically relevant, 14.3 percent strongly disagreed, 9.5 percent agreed while those who strongly agreed and not sure were both represented at 4.8 percent. The item had a mean of 2.238 and a standard deviation of 0.995. This is an indication that, majority of the respondents feel that, the training equipment are not technologically relevant. The results indicate that, informants at 61.9 percent disagreed that the institution provides a variety of equipment choices, 14.3 percent agreed, those who strongly disagreed and not sure were both represented at 9.5 percent while those who strongly agreed at 4.8 percent. The item had a mean rating of 2.429 and a standard deviation of 1.028. This was an indication that, majority of the respondents feel that the institution does not provides a variety of equipment choices. Data captured on the instructors responses on the relevance of training facilities and equipment is summarized in Table 4.21.

Table 4.21

Instructors' Responses on Relevance of Training Equipment

Statement	Mean	SDev.	SA %	A %	NS %	D %	SD %
There is adequate training Tools and equipment	2.058	0.932	3.4	8.0	1.1	65.5	21.8
There is well equipped Workshops	2.241	0.988	3.4	13.8	1.1	66.7	14.9
There is well equipped libraries	1.828	0.614	1.1	1.1	1.1	72.4	24.1
The training equipment are technologically relevant	2.229	0.898	2.3	12.6	2.3	71.3	11.5
the institution provides a variety of equipment choices	2.402	0.908	3.4	13.8	6.9	71.3	4.6
Valid N= 87							

The data shown in Table 4.21 shows that, instructors disagree at 65.5 percent that there is adequate training tools and equipment, 21.8 percent of them strongly disagreed, 8.0 percent agreed and strongly agreed at 3.4 percent. The item had a mean rating of 2.058 and standard deviation of 0.932. This is an implication that, majority of the respondents feel that there is no adequate training tools and equipment. The results also indicate that, respondents disagree at 66.7 percent that there is well equipped workshops, 14.9 percent of them strongly disagreed, while those who agreed at 13.8 percent, strongly agreed at 3.4 percent while 1.1 percent was not sure. The item had a mean of 2.241 and a standard deviation of 0.988.

Therefore, making a conclusion that, most of the respondents do not agree that there is well equipped workshops. The data in Table 4.21 indicate 72.4 percent disagree that, there is well equipped libraries, and 24.1 percent strongly disagreed. Those agreed, strongly agreed and those who were not sure all represent at 1.1 percent. The item had a mean rating of 1.828 and a standard deviation of 0.614. Therefore, most of informants indicate that, there are no well-equipped libraries.

The results indicate that, respondents at 71.3 percent of informants disagreed that the training equipment are technologically relevant, 12.6 percent agreed, 11.5 percent strongly disagreed while those who strongly agreed and not sure were both represented at 2.3 percent. The item had a mean rating of 2.229 and a standard deviation of 0.898. Majority of respondents feel that, training equipment are technologically relevant. The results indicate that, informants at 71.3 percent disagreed that the institution provides a variety of equipment choices, 13.8 percent agreed, those who strongly disagreed at 4.6 percent while those who strongly agreed at 3.4 percent. The item had a mean rating of 2.402 and a standard deviation of 0.902. It can be concluded that, majority had observed that institution provides a variety of equipment choices which limits trainees' hands on experience as expected in any quality skill development process. Data captured on the trainees' responses on the relevance of training facilities and equipment is summarized in Table 4.22.

Table 4.22

Trainees' Responses on the Relevance of Training Equipment

Statement	Mean	SDev.	SA %	A %	NS %	D %	SD %
There is adequate training Tools and equipment	2.067	0.948	1.3	13.1	1.3	59.6	24.7
There is well equipped Workshops	2.180	1.283	9.9	10.9	0.3	44.9	34.0
There is well equipped libraries	1.872	0.649	1.3	1.9	1.9	72.4	22.4
The training equipment are technologically relevant	2.641	1.076	4.2	27.6	2.6	59.6	6.1
the institution provides a variety of equipment choices	2.394	0.973	6.7	9.6	5.4	72.8	5.4
Valid N= 312							

The data shown in Table 4.22 reveal that, trainees disagree at 59.6 percent that there is adequate training tools and equipment, 24.7 percent of them strongly disagreed, 13.1 percent agreed while those who strongly agreed who were not sure were represented at 1.3 percent. The item had a mean rating of 2.067 and a Standard deviation of 0.948. This is an implication that, majority of respondents feel that there is no adequate training tools and equipment. The results also indicate that, respondents disagree at 44.9 percent that there is well equipped workshops, 34.0 percent of them strongly disagreed, while those who agreed at 10.9 percent, strongly agreed at 9.9 percent while 0.3 percent of the informants were not sure.

The item had a mean rating of 2.180 and a Standard deviation of 1.283. Therefore, making a conclusion that, most of respondents do not agree that there is well equipped workshops. The data in Table 4.22 indicate that, 72.4 percent of trainees disagree there is well equipped libraries, 22.4 percent strongly disagreed. Those who agreed and those who were not sure were both represent at 1.9 percent and whose who strongly agreed at 1.3 percent. The item had a mean rating of 1.872 and a Standard deviation of 0.649. Therefore, most of informants indicated that, there are no well-equipped libraries. The results indicate that, respondents at 59.6 percent of informants disagreed that the training equipment are technologically relevant, 27.6 percent agreed, 6.1 percent strongly disagreed, 4.2 strongly agreed and those who were not sure were represented at 2.6 percent. The item had a mean rating of 2.641 and a Standard deviation of 1.076.

This was an indication that, majority of respondents feel that the training equipment are not technologically relevant. The results indicate that, informants at 72.8 percent disagreed that the institution provides a variety of equipment choices, 9.6 percent agreed, strongly agreed at 6.7 percent, strongly disagreed and those who were not sure were represented at 5.4 percent. The item had a mean rating of 2.394 and a Standard deviation of 0.971. This findings indicates that, majority of respondents had an opinion that institution don't provide a variety of equipment choices. This compromises the quality of training programmes whose outcome may make TVET non attractive. The summary of informants' responses on the relevance of training facilities is reported in Table 4.23.

Table 4.23

Summary of Informants' Responses on Relevance of Training Facilities

Statement	**Managers**			**Instructors**			**Trainees**			**overall**
	N	Mean	Std. deviation	N	Mean	Std. deviation	N	Mean	Std. deviation	**Mean**
i). The institution has adequate training facilities and equipment	21	2.857	1.062	87	2.058	0.932	312	2.067	0.948	**2.327**
ii). The institution has well equipped workshops	21	2.667	1.111	87	2. 241	0.988	312	2.180	1.283	**2.363**
iii).The institution has well equipped Libraries	21	2.333	1.065	87	1.828	0.614	312	1.872	0.649	**2.011**
iv).The training equipment available are technologically relevant	21	2.238	0.995	87	2.230	0.898	312	2.641	1.076	**2.369**
v).The institution provides a variety of equipment choices	21	2.429	1.028	87	2.402	0.908	312	2.394	0.973	**2.408**
Valid N (list wise) N = 420	N=21			N=87			N=312			**2.296**

Table 4.23 shows that, most vocational institutions had no adequate training facilities and equipment given by (mean =2.327). The managers, instructors and the trainees disagreed to the statement that, the institutions has adequate training facilities and equipment at (mean=2.363). The workshops in most cases were not therefore equipped and designed to fit the purpose as given by (mean =2.011). The researcher who visited the workshops in the sampled vocational institutions to ascertain the status of the workshops confirmed that some workshops had assorted non-operational tools and equipment. He further noted that the basic training facilities and equipment were lacking in most of CVET institution, most of the workshops had poorly kept facilities. In the motor vehicle technology workshops the assorted motor vehicle parts were rated to be obsolete. Sewing machines though operational could not offer the best experience.

During the interview it was reported that, regular major and minor repairs were inevitable to make them work. The poor state of the workshops which is an essential component in a quality skill development environment, may compromise the quality of skills development. It was also revealed that none of the institutions had a library at (mean =2.370). Though some of the managers had indicated that their institutions had well equipped libraries at (mean=2.233). The researcher confirm the same and what this managers referred to as libraries are small book stores. The available training equipment were also rated at (mean=2.370) to be technologically irrelevant. This implies that, the equipment used for training are outdated though they can be used for training they don't match with the ones in the industry. Most

of this equipment were used in the garment making trade, carpentry and joinery, motor vehicle technology where there were assorted parts of a vehicle and shells in some institutions. Diagrams on the chalkboard representing vehicle parts was an evidence that more theoretical approach was used to train which denies the trainees an opportunity to have hands-on experience. Further, the study established that the institutions did not provide a variety of training tools and equipment to meet the varied industrial choices. The interviewed managers confirmed that, besides other factors that could influence access to TVET, the VTC's poor infrastructure and equipment has an impact on the quality of training provided.

They further stated that, the trainees train with substandard equipment which makes it difficult to be absorbed in the job market hence creating a mismatch between the graduates' capacities and the industry requirement. The study findings supported a research carried out by Anindo et al (2016), in Nairobi County which indicated that, training facilities and equipment in sampled TVET institutions in the County were inadequate. These challenges were noted to have an influence on training and skill development to TVET graduates which compromises their employability. Based on this studies unavailability of adequate training facilities and equipment negatively affect the quality of training. This implies that, the low enrolment experienced in CVETIs could be attributed to the inadequacy of training facilities which has compromised quality of training. The status of some of the sampled vocational institutions in Makueni County fitted well in the findings of report by MacDonald et al (2010), on the principles and strategies of a successful TVET program which

indicated that, in some countries TVET collages were in a very poor state where tools and equipment were observed to be obsolete and yet were used for training. The institutions were fragmented, poorly developed and in such a state they could not be responsive to employment demands. Such institutions are considered to be unable to stay relevant and responsive to changing industrial needs, finds it difficult to enhance public perception on the importance and value of TVET and therefore they are not in a position to produce life-long graduates for long life employability who do not require on-the-job training. Education and training requires hands-on experience where the trainees should spent most of their training time in workshops to acquire flexible qualifications, capabilities of working in their areas of specialization and enhance occupational and geographical mobility.

The findings of this study paints a totally different training model when compared to Germany's dual vocational training systems. A study by Dieter Euler (2013), indicated that, due to dual training principle, Germany's vocational training system offers work-based learning that aims at reducing youth unemployment. The vocational education and training system employs business setting environment to enhance skill development under real life conditions. This enables the trainees to acquire occupational skills that are market oriented. Most developed countries like Belgium, Finland, France, Netherland, Australia and Switzerland have adopted a vocational training model whereby the trainees spent 75 % or more of their training time in practical (work-place training).

Similarly, Denmark, Germany, Norway, Czech Rep, Turkey and Hungary have employed vocational training model where the trainees spent 50% to 75% of their time in in-company training. This vocational training approach where adequate training facilities and equipment, which are technologically relevant and linked the school-based training to work-place training has made school-based vocational training become more attractive by 75% of all vocational training. The study further indicates that, the outcome of this kind of vocational training has made Netherlands to have low rates of youth unemployment that is 7.6%, Germany 8.6% and Austria 8.3% by the year 2011 (Dieter, 2013). TVET in this Countries has attracted considerable interest which has increased the enrolment in their vocational education and training institutions.

This implies that, adequate training facilities and technologically relevant equipment are essential elements of a vocational education and training system that enhance access. Estonia in 2014 in a report published by CEDEFOP on attractiveness of initial vocational education and training cited improvement of training facilities and equipment as one of the key measures to raise the attractiveness of VET for prospective trainees (Cathleen, Raffe, Georg, Ammerman, & Watters, 2014). The study sought to assess the current status of the sampled vocational institutions in the County. The status of vocational institutions training facilities and equipment was physically cross checked by the researcher using observation schedule in appendix VI.

4.5.2 Researchers Observation on the Status of Training Facilities and Equipment

The rating in the observation was based on the key; poor when the facility or equipment not observed, fair when the facility was observed but not adequately equipped based on the number of trainees enrolled for a particular trade, good when the facility is observed and considered adequately equipped based on the number of trainees taking that particular course and very good when the facility is observed and had more training equipment than the enrolled trainees in that particular course. An observation check list was used to verify the data already collected from the informants. An observation check list is used when the investigator is collecting the data and at the same time makes an observation to verify the data (Krishna & Rangnatham, 2011). The researcher was taken round by the institution managers to visit various physical infrastructure of interest. The observations made were categorized and reported in Table 4.24.

Table 4.24

Researcher's Comments on the Vocational Institutions' Adequacy of Training Facilities and Equipment

Status	frequency	percent
Poor	3	14.3
Fair	12	57.1
Good	2	9.5
Very good	4	19.1

Table 4.24 shows the analyzed observations with higher percentage of the sampled vocational institutions having inadequate training equipment, as compared to the number of trainees in a particular training course. It was observed that, 12 out of the 21 (57.1%) of the vocational institutions visited had inadequate training equipment. In most cases, some institutions and especially the ones that were established over 30 years ago had very old buildings which did not match the status of training institution.

The infrastructure was found to be dilapidated either due to poor maintenance and repair. In fact, when compared to the basic education institutions, the primary schools and secondary schools seemed to be much better, hence making them look deserted though still operational. The findings of this study created a totally different image of what TVET facilities should be. In comparison to TVET in Australia where, by 2014 the Australian Government had made significant financial investment in its trade training centres to provide state of art facilities to provide work based learning. This deliberate commitment has increased transitional mobility which in the long-run will improve the attractiveness of TVET (Cathleen, Raffe, Georg, Ammerman, & Watters, 2014).

4.6 Career Guidance and Access to CVETIs

Objective 3 - To evaluate the extent to which career guidance influenced access to CVETIs in Makueni County

This objective looked at the contribution of in-depth information on the realities of various courses, offered by CVET institutions and the extent to which career guidance information influenced access to CVETIs. This was based on the assumption that, the trainees could have unrealistic expectations on their future career, the realities of studying a certain vocation and trainees diversity background preparation on higher education. This may have influenced their transition to CVET institutions. The influence of career guidance was explored to establish the extent to which career guidance influence access to VET institutions. A questionnaire item was constructed to establish the source of information that informed the trainees' choice to join the VTCs. This item was administered to trainees only who were considered to give reliable information. The researcher posted a question to establish how the trainees first learned about VET. The responses were analyzed and reported in Table 4.25.

Table 4.25

How the Trainees First Learnt about CVETIs Training Courses

Statement	frequency	percent (%)
Through teachers in their previous school	31	9.9
Through family members	45	14.4
Through peers	152	48.7
Through the media	36	11.5
Through self-discovery	48	15.4
	312	100.0

Table 4.25 shows that, 48.7 % of trainees learned about CVETIs through their peers. Such a revelations is a clear indication that, there is a limited concern on career guidance at the lower levels of schooling where the role played by teachers to inform the students about vocational training was rated at 9.9%. A study conducted by UNESCO-UNEVOC between 2019-2020 in ten Countries; Australia, Chile, Costa Rica, German, Ghana, Jamaica, Lebanon, the Netherland, the Philippines and South Africa on boosting gender equality in science and technology, a challenge for TVET programmes and career, placed a teacher at a critical point in a student's career choice.

The study indicates that, Educational career advice provided by educational staff such as teachers and career advisers has a strong influence on the choices of students to education and training courses (UNESCO-UNEVOC, 2020). This findings were supported by a study done in Tajikistan on the factors that influence students' decision to enroll in Initial Vocational Education and Training (IVET), which pointed out that, through career development sessions, the young population find information about the available training opportunities. During this critical moment, the adolescent need the guidance from experienced career counselors and others who have experience in career decision-making process (Farid, 2019). Based on this argument, access to VET largely depends on information on the availability of training opportunities and programmes, which is passed through career awareness sessions. It is further noted that, training institutions in many developing countries traditionally have not seen transition to vocational training as a significant

concern of their human resource development, and their mission too, leading to low development of careers advice, which has influenced enrolment to vocational training (UNESCO, 2013). To establish whether, the CVETIs carry out career guidance programmes within the institution to enhance career progression, which is an ingredient for increased enrolment, six questionnaire items were constructed and presented to managers, instructors and trainees. Table 4.26 contains the summary of the information obtained.

Table 4.26

Provision of Career Guidance Services

Respondent	Yes		No	
	Frequency	%	frequency	%
percent				
Managers	10	47.6	11	52.4
Instructors	42	48.3	45	51.7
Trainees	116	37.2	196	62.8

Table 4.26 shows the analyzed data for managers, instructors and trainees on the provision of career guidance services within the vocational institutions. The three categories of informants indicate that, institutions do not offer such services. This implies that, the trainees are denied the opportunity to explore the expectations surrounding the details of their career paths. The provision of in-depth information on the realities of a particular course could encourage the trainees to progressively enroll for higher levels of training which could improve the social acceptance of

VET. An item on whether career guidance influenced access to CVETIs was presented to the three categories of respondents. Table 4.27 contains the summary of the information obtained.

Table 4.27

Influence of Career Guidance on Access to CVETIs

Respondent	YES		NO	
	Frequency	%	frequency	%
Managers	16	76.2	5	23.8
Instructors	69	79.3	18	20.7
Trainees	295	94.6	17	5.4

Table 4.27 shows that, the responses made by the three categories of informants were rated above 76.0%. This indicates that, career guidance influenced access to CVET institutions. The trainees' response was overwhelming given by 295 out of 312 (94.6 %) of the sampled trainees. The results were in line with the UNESCO report (2013), on revisiting global trends in TVET, reflection on theory and practice, which indicated that career guidance is an indispensable aspect within TVET. This argument is based on the premise that enrolment to a vocational course is an indication that a deliberate career decision has been made. Other studies have shown that, access to vocational training largely depends on the information about

the availability of training opportunities and courses that are offered by a particular training institution that is passed through career awareness (Cathleen, Raffe, Georg, Ammerman, & Watters, 2014). This implies that, enrolment for education and training is proportionately influenced by the career education that is gradually passed to the young population formally or informally. Effective career guidance during the basic education level prepares the pupils for the higher education. Such information makes an individual to make an informed decision on their career based on their diversified intellectual abilities, distinctive interests and the ability to meet both direct and indirect costs of the training. The family has been considered the most influential group in students' decision-making.

Roles of Parents in Mentorship and Career Guidance of Learners include; creating a positive and enabling environment for motivating the learners to freely discuss their learning areas and career preferences, providing basic resources towards the development of the learner's career, information on career opportunities available to their children, understanding the learner's abilities and interests in order to provide the required guidance, detecting any early learning and behavioral related manifestations in the child and make timely corrective interventions. It's through the families that, the perception about quality of TVET, family norms and traditions influencing the choice of education track can in communicated (Cathleen, Raffe, Georg, Ammerman, & Watters, 2014). Entrepreneurial learning is an important channel for developing competences for employment, while career guidance can be a route to help TVET graduates realize the added value of these competences within

their future careers. A start-up is a viable career option, and TVET institutions can support this pathway by providing or signposting links to relevant networks (UNESCO-UNEVOC, 2020).

4.6.1 Existence of Career Guidance Services

To establish whether the vocational institutions offer career guidance services to the trainees to pass the current industrial needs information and to prepare them for progressive education and training, the researcher posed item to the managers, instructors and the trainees. The questionnaire had an item that required them to rate six statements that were constructed to establish the existence of career guidance services within and out of the Vocational institutions. This was based on a Likert scale of 1 – 5. The responses for managers, instructors and from the trainees were presented in single tables, analyzed and discussed as one whole. Managers' responses on availability of career guidance services are reported in Table 4.28.

Table 4.28

Managers' Responses on Availability of Career Guidance Services

Statement	Mean	SDev	SA %	A %	NS %	D %	SD %
i). the institution has career guidance department offering career guidance	2.524	1.078	4.8	19.0	9.5	57.1	9.5
ii). Trainees are timely encouraged on their career choices	3 .619	1.024	9.5	66.7	4.8	14.3	4.8
iii). The trainees had prior knowledge on the training courses available in CVETIs	2.143	1.062	4.8	9.5	4.8	57.1	23.8
iv). Trainees are guided on career paths for to enhance future career progression	3.048	1.117	4.8	43.9	9.5	38.1	4.8
v).inadequate career guidance negatively influence career progression	3.571	1.121	9.5	66.7	4.8	9.5	9.5
vi). The instructors provide guidance on the importance of vocational education to enhance further training	2.667	1.155	4.8	28.6	4.8	52.4	9.5
Valid N (listwise) N=21							

The data shown in Table 4.28 indicate that, managers disagree at 57.1 percent that there is career guidance department offering career advice, 19.0 percent of them agreed, those who strongly disagreed not sure were presented at 9.5 percent and those who strongly agreed at 4.8 percent. The item had a mean rating of 2.524 and a Standard deviation of 1.078. This implies that, majority of the managers feel that, there is no career guidance department offering career advice. The descriptive statistics results also indicate that, respondents agreed at 66.7 percent that the institution provides in-depth information on the realities of individual courses, 14.3 percent of them disagreed, while those who strongly agreed at 9.5 percent, and those who strongly disagreed and not sure represented at 4.8 percent. The item had a mean rating of 3.619 and a Standard deviation of 1.024. Therefore, making a conclusion that, the institution provides in-depth information on the realities of individual courses.

The study findings indicate that, 57.1 percent of managers disagree that trainee had prior knowledge on training courses offered by CVETIs. Those who strongly agreed were represented by 23.8 percent, 9.5 percent representing those who agreed while 4.8 percent represented strongly agreed and the informants who were not sure. The item had a mean rating of 2.143 and a Standard deviation of 1.062. Therefore, most of the informants indicate that the trainees had no prior knowledge on training courses CVETIs. The results indicate that, respondents at 42.9 percent of informants agreed that, the trainees are informed about career paths available, 38.1 percent disagreed, 9.5 of the informants were not sure, 4.8 percent represented

strongly disagreed and those who strongly agreed. The item had a mean rating of 3.048 and a Standard deviation of 1.117. Majority of managers felt that, the trainees are informed about career paths available. The data indicate that, informants at 66.7 percent agreed that inadequate career guidance has negatively influenced career progression hence low enrolment, 9.5 percent represented those who strongly disagreed, strongly agreed and disagreed while those not sure represented at 4.8 percent. The item had a mean rating of 3.571 and a Standard deviation of 1.121. This indicates that, majority of respondents feel inadequate career guidance has negatively influenced career progression hence low enrolment.

The study findings also indicate that, respondents disagree at 52.4 percent that the instructors provide guidance on the importance of vocational education to enhance further training, 28.6 percent agreed, 9.5 percent strongly disagreed and 4.8 percent represented those who were not sure and strongly agreed. The item had a mean rating of 2.667 and a Standard deviation of 1.155. Therefore, making a conclusion that, most of respondents feel that, the instructors do not provide guidance on the importance of vocational education to enhance further training. Instructors' responses on availability of career guidance services summarized in Table 4.29.

Table 4.29

Instructors' Responses on Availability of Career Guidance Services

Statement	Mean	SDev	SA %	A %	NS %	D %	SD %
i). the institution has career guidance department offering career guidance	2.368	1.079	5.7	14.9	3.4	62.1	13.8
ii). Trainees are timely encouraged on their career choices	2.816	1.126	3.4	37.9	2.3	49.4	6.9
iii). The trainees had prior knowledge on the training courses available in CVETIs	2.483	1.275	6.9	24.1	2.3	43.7	23.0
iv). Trainees are guided on career paths for to enhance future career progression	3.149	1.196	3.4	57.5	1.1	26.4	11.5
v).inadequate career guidance negatively influence career progression	3.540	1.119	13.8	56.3	5.7	18.4	5.7
vi). The institution campaigns for vocational education through print and other social media	2.862	1.143	11.5	21.8	10.3	54.0	2.3
Valid N (list wise) N=87							

The data shown in Table 4.29 shows that, instructors disagree at 62.1 percent that there is career guidance department offering career advice, 14.9 percent of them

agreed, 13.8 percent strongly disagreed, strongly agreed at 5.7 and not sure at 3.4 percent. The item had mean rating of 2.368 and a Standard deviation of 1.079. This indicate that, majority of the respondents feel that there is no career guidance department offering career advice. The data also indicate that, respondents disagree at 49.4 percent that, institution provides in-depth information on the realities of individual courses, 37.9 percent of them agreed, while those who strongly disagreed at 6.9 percent, 3.4 percent strongly agreed and not sure represented at 2.3 percent. The item had mean rating of 2.816 and a Standard deviation of 1.126. Therefore, the descriptive statistics results making a conclusion that the institution do not provide in-depth information on the realities of individual courses.

The data shown in Table 4.29 indicate that, 43.7 percent of instructors disagree that trainee had prior knowledge on training courses offered by CVETIs. Those agreed as represented by 24.1 percent, 23.0 percent representing those who strongly disagreed, 6.9 percent strongly agreed while 2.3 percent were not sure. The item had a mean rating of 2.483 and a Standard deviation of 1.275. Most of informants indicated that, the trainee had no prior knowledge on training courses CVETIs. The results indicate that, respondents at 57.5 percent of informants agreed that the trainees are informed about career paths available, 26.4 percent disagreed, 11.5 percent strongly disagreed while those who strongly agreed at 3.4 and not sure represented at 1.1 percent. The item a mean rating of 3.149 and a Standard deviation of 1.196. This implies that, the majority of the respondents feel that the trainees are informed about career paths available. The results indicate that, informants at 56.3

percent agreed that inadequate career guidance has negatively influenced career progression hence low enrolment, 18.4 percent strongly disagreed , strongly agreed at 13.8 percent while those not sure and those strongly disagreed both represented at 5.7 percent. The item had a mean rating of 3.540 and a Standard deviation of 1.119. Majority of respondents felt that, inadequate career guidance has negatively influenced career progression hence low enrolment.

The data also indicate that, respondents disagree at 54.0 percent the instructors provide guidance on the importance of vocational education to enhance further training, 21.8 percent agreed, 11.5 percent strongly agreed, 10.3 percent were not sure while 2.3 percent strongly disagreed. The item had a mean rating of 2.862 and a Standard deviation of 1.143. These study findings implies that, most of the respondents felt that the instructors do not provide guidance on the importance of vocational education to enhance further training. The data analyzed for this item indicates that, trainees are not guided by professional career counselors to choose their career paths considering their interest, abilities, weakness, required resources and the existing training opportunities. Trainees' responses on availability of career guidance services are reported in Table 4.30.

Table 4.30

Trainees Responses on Availability of Career Guidance Services

Statement	Mean	SDev	SA %	A %	NS %	D %	SD %
i). the institution has career guidance department offering career guidance	3.003	1.246	10.6	38.1	0.0	43.6	7.7
ii). Trainees are timely encouraged on their career choices	3.314	1.280	21.2	35.6	0.0	40.1	3.2
iii). The trainees had prior knowledge on the training courses available in CVETIs	2.509	1.339	9.9	22.1	1.9	41.0	25.0
iv). Trainees are guided on career paths for to enhance future career progression	3.647	1.098	14.7	62.8	1.3	14.7	6.4
v).inadequate career guidance negatively influence career progression	3.798	0.718	4.8	81.1	5.1	7.1	1.9
vi). The instructors provide guidance on the importance of vocational education to enhance further training	2.401	0.891	2.2	15.4	8.0	68.9	5.4
Valid N =312							

The data shown in Table 4.30 indicate that, trainees disagree at 43.6 percent that there is career guidance department offering career advice, 38.1 percent of them

agreed, 10.6 percent strongly agreed and those who strongly disagreed at 7.7 percent. The item had a mean rating of 3.003 and a Standard deviation of 1.246. Based on this results majority of trainees reported that, there is no career guidance department offering career advice. The results also indicate that, respondents disagree at 40.1 percent that, the institution provides in-depth information on the realities of individual courses, 35.6 percent of them agreed, while those who strongly agreed at 21.2 percent and 3.2 percent strongly disagreed. The item had a mean rating of 3.314 and a Standard deviation of 1.280. Therefore, making a conclusion the institution provides in-depth information on the realities of individual courses.

The results too shows that, 41.0 percent of trainees disagree that trainee had prior knowledge on training courses offered by CVET institutions. Those strongly disagreed were represented at 25.0 percent, 22.1 percent representing those who agreed, 9.9 percent strongly agreed while 1.9 percent were not sure. The item had a mean rating of 2.509 and a Standard deviation of 1.339. Therefore, most of the informants indicated that, the trainee had no prior knowledge on training courses CVETIs. The results indicate that respondents at 62.8 percent of informants agreed that the trainees are informed about career paths available, those who disagreed and strongly agreed were both represented at 14.7 percent, 6.4 percent strongly disagreed and 1.3 percent were not sure. The item had a mean rating of 3.647 and a Standard deviation of 1.098. This is an indication that, majority of trainees had an opinion that they are informed about career paths available which could influence

their future career progression. The results indicate that, informants at 81.1 percent agreed that inadequate career guidance has negatively influenced career progression hence low enrolment, 7.1 percent disagreed, 5.1 percent were not sure, 4.8 percent strongly agreed and those who strongly disagreed were represented at 1.9 percent. The item had a mean rating of 3.798 and a Standard deviation of 0.718. This clearly implies that, majority of trainees reported that inadequate career guidance services has negatively influenced career progression hence low enrolment in CVET institutions.

The results also indicate that, respondents disagree at 68.9 percent the instructors provide guidance on the importance of vocational education to enhance further training, 15.4 percent agreed, 8.0 percent of them were not sure, 5.4 percent strongly disagreed, while 2.2 percent strongly agreed. The item had a mean rating of 2.401 and a Standard deviation of 0.891. Therefore, making a conclusion that most of the respondents feel that the instructors do not provide guidance on the importance of vocational education to enhance further training. The summary of informants' responses on availability of career guidance services is reported in Table 4.31.

Table 4.31

Summary of Informants' Responses on Availability of Career Guidance Services

Statement	Managers			Instructors			Trainees			overall
	N	Mean	Std. deviation	N	Mean	Std. deviation	N	Mean	Std. deviation	**Mean**
i). the institution has career guidance department offering career guidance	21	2.524	1.078	87	2.368	1.079	312	3.003	1.246	**2.6316**
ii). Trainees are timely encouraged on their career choices	21	3.619	1.024	87	2.816	1.126	312	3.314	1.280	**3.2497**
iii). The trainees had prior knowledge on the training courses available in CVETIs	21	2.143	1.062	87	2.483	1.275	312	2.509	1.339	**2.3782**
iv). Trainees are guided on career paths for to enhance future career progression	21	3.048	1.117	87	3.149	1.196	312	3.647	1.098	**3.2815**
v).inadequate career guidance negatively influence career progression	21	3.571	1.121	87	3.540	1.119	312	3.798	0.718	**3.6366**
vi). The institution campaigns for vocational education through print and other social media	21	2.667	1.155	87	2.862	1.143	312	2.401	0.891	**2.6431**
Valid N (list wise) N=420	N=21			N=87			N=312			**2.970**

Table 4.31 provides a summary of managers', instructors' and trainees' responses to items presented to determine the influence of career guidance on access to CVET institutions. From the summary it appears that, a majority of the vocational institutions had no functional career guidance department (mean=2.632). However, a majority of the managers indicated that the institutions provides in-depth information on individual courses (mean=3.619). It was also established that, the trainees are informed about career paths for progressive training (mean= 3.282). When asked whether the trainees had prior knowledge on the training courses offered by CVET institutions, the respondents overwhelmingly indicated that, the trainees were not informed (mean. 2.378).

The study sought to establish whether inadequate career guidance services could negatively influence career progression. This was based on assumption that career guidance on career progression could encourage them to enroll for artisan grade II and grade I which in turn increases the enrolment. Most of the respondents agreed that, career guidance is essential for career progression whose long run effect is to boost the Vocational training institutions enrolment (mean= 3.637). Based on the study findings, the failure to have functional career guidance department is an indication that trainees are not properly inducted through a welcome pack where they are given more information about their individual areas of specialization. This implies that, the instructors and the managers have not played their role of continued induction as the trainees acclimatize to the new level of study. This could negatively affect the trainees' ambitions for further education and training which

may lead to low enrolment. This findings concurred with a study by Watters (2009), on making initial vocational education and training more attractive for prospective trainees. The study observed that, career departments have inadequate expertise to guide the trainees on career progression that makes it difficult to enroll for higher level of training in the institution or in other related institutions. Basically, inadequate career guidance in any institution of learning, limited information on career progression and labour market remuneration may lead to low drive in pursuing further training which may lead to low rates of enrolment in TVET institutions and other institutions of education and training. Their response on whether the trainees had prior knowledge about the vocational training courses indicated that the trainees had inadequate information about the same. This implies that, VET in the County has not gained a high social acceptance and the current enrolment in VET could be as a result of the last option after missing on other institutions of education and training.

Mumtaz, Abdul & Asma (2018), on their study on the impact of career counselling and vocational guidance on employment in TVET sub-sector citing (Kok &low, 2017), indicated that, for students to make informed career choice and training path-way require professional career guidance to enable them develop self-awareness in personal interest, skills and knowledge, their potential, understand their weakness and assess occupational opportunities (Mumtaz, Abdul, & Asma, 2018). This insight makes career guidance an important component to solve the education and training challenges that developing countries are facing today. During an interview

with the managers, a manager had an opinion that the gradual career aspiration development during an individuals' early days of development is shaped by the individual's social environment where career decisions are based on role models. It's at this point that, the young population wishes to become a Lawyer, a Medical doctor, an Engineer or any other social ranking career. The Managers reported that, rarely the young population will aspire to become artisans or craftsmen as the society has attached less weight of the said trades as they all aspire to join universities for various Degree courses. Based on this insight, vocational training in the County has not been given prominence at the lower levels of schooling were the learners are gradually prepared to join various VET institutions after completing their basic education. The findings in Table 4.31 revealed that, the trainees' response on whether the institution has a functional career guidance department concurred with the managers' and instructors. It can be concluded that the vocational institutions in the county are not formally organized to disseminate this important information.

On whether the institution provides in-depth information on individual courses, their response was in line with the instructors' response. The trainees being the recipients of such an important information confirmed that, indeed they have limited information about the realities of their training course in terms job market and other course requirements. Another key concern was based on whether the trainees had prior knowledge about the courses that are offered by VET institutions. The majority indicated that, they had no such information. This implies that the

trainees had not gradually prepared themselves to pursue vocational education and training as their life-time career. The trainees were found to be aware of the various training paths in their various areas of specialization as given by the majority of the respondents. Career guidance enable the young population and others to make a choice in wide range of available training opportunities and training courses, based on their distinctive abilities, interests and ability to both direct and in direct costs of training. This implies that career guidance is indispensable within TVET, based on the evidence that enrolment to a vocational course indicates a deliberate career decision has been made (UNESCO, 2013).

These responses are in line with the Kenya National Qualifications Framework handbook (2018), which states that learners are more inclined towards improving their knowledge and skills once they get to understand clearly more about the existing training pathways which provide access to, mobility and training progression within education, training and career paths. Such improvements are believed to increase their employment opportunities and competencies in the world of work. The proposals made on the Competency Based Education and Training Policy Framework (2018), to liaise with County Governments to enhance career guidance in Vocational training centres had not been implemented during the study period (Ministry of Education, 2019). If implemented, this would enhance the attractiveness of VET. In order to increase access and inclusivity in TVET, TVETA has suggested to strengthen career guidance and counseling in primary and secondary schools in order to inform prospective students/trainees and

parents/guardians about the opportunities in TVET. While career guidance and counseling is part of the education system, it tends to be biased towards university education, resulting from limited awareness among career and study counselors. TVETA will engage in advocacy, rebranding and repositioning of TVET in order to ensure wider access and inclusivity. TVETA shall continue to work with the development partners and other stakeholders on various undertakings to improve training systems and career counseling. To rebrand TVET and improve public perception, TVETA will conduct well-designed awareness campaigns to publicize and actively market TVET through various media outlets (Republic of Kenya, 2019).

4.7 Adequacy of Instructors and Access to CVETIs

Objective 4. To find out the extent to which adequacy of competent instructors influenced access to CVET institutions in Makueni County.

This objective looked at the instructors' related factors that influenced access to CVETIs. The information was considered crucial based on the assertion that, competent instructors are significant players in production of a workforce with relevant industrial skills. The study looked at the issues surrounding industry exposure, skills deficiencies and other competency gaps that may compromise the relevance of vocational training. Competency of the VET instructor in this study is considered paramount because instructors are dealing with young population on their way to the job market. This calls for more knowledge, relevant skills and capacities in view of global labour mobility, technology advancement, knowledge

economy and globalization. To assess the magnitude to which adequacy of competent instructors influenced access CVETIs, questionnaire items were presented to managers, instructors and trainees.

4.7.1 Respondents' Responses on Influence of Adequate Instructors on Access to CVETIs

The respondents were required to rate statements that sought to determine whether, adequacy of competent instructors influenced access to CVETIs. Table 4.32 contains the summary of the information obtained.

Table 4.32

Influence of Adequate Instructors on Access to CVETIs

Respondent	YES			NO		
	Frequency	%	valid percent	frequency	%	valid percent
Managers	17	81.0	81.0	4	19.0	19.0
Instructors	54	62.1	62.1	33	37.9	37.9
Trainees	292	93.6	93.6	20	6.4	6.4

The data in Table 4.32 indicate that, more than 62.0 % of the respondents had the opinion that adequacy of competent instructors influenced access to CVETIs. This implies that, in the context of competence-based human capital production,

competencies for effective VET profession is crucial to enhance TVET social acceptance and attractiveness. The findings of this study concurred with a study on competencies of vocational teacher carried out by Arifin et al (2017), who pointed out that a vocational education and training teacher who has training competency, professional competency and communication competency is effective in vocational education and training profession and provides market oriented training. This provides a base for continuously meeting the industry demands, focusing to improve TVET delivery and increasing trainees' enrolment. The other key concern was the staffing. This item was presented to the managers only. The assumption was that, the instructors and trainees were not in position to provide a reliable response because the item sought to capture information which was more administrative.

4.7.2 Managers' Responses on Staffing

To establish whether the institutions were adequately staffed with permanent instructors, the managers were requested to indicate the number of instructors whose terms of engagement are permanent, contract or temporally. Their responses on the institutions staffing issue are reported in Table 4.33.

Table 4.33

Managers' Responses on Staffing

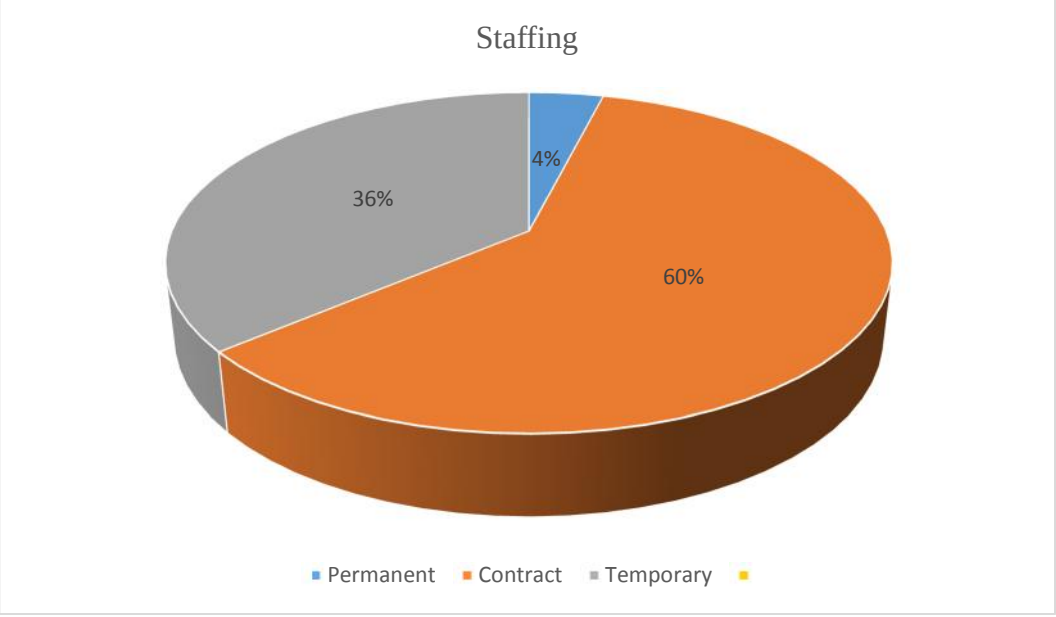
Institution	year of establishment	category of staff		
		Permanent	contract	temporally
A	1976	_	10	6
B	1976	1	6	7
C	1978	_	3	1
D	1979	_	5	4
E	1982	_	7	5
F	1984	1	2	3
G	1984	1	3	6
H	1984	_	4	2
I	1985	_	10	_
J	1985	_	5	3
K	1986	_	4	_
L	1993	_	3	4
M	1999	_	2	_
N	2007	_	4	_
O	2007	_	3	_
P	2008	1	3	3
Q	2008	1	3	1
R	2009	_	3	1
S	2009	_	4	3
T	2010	_	4	3
U	2014	1	3	3
Total		6	91	55

The responses in Table 4.33 indicates that, most of the instructors including the managers are employed under contractual terms. This is given by 91 out of 152 instructors from the sampled vocational institutions. Teachers and trainers are the catalysts for change within any education system, and the mainstreaming of entrepreneurial learning across VET requires a robust supply of well-trained educators (UNESCO-UNEVOC, 2020). Based on the year of establishment, the study found out that, for a long time the institutions have had the challenge of inadequate instructors which to a large extent compromises the quality of training.

For the purpose of creating a visual impression of the proportion of instructors' terms of employment, the various categories were presented in a pie chart in Figure 4.2.

Figure 4.2

Proportion of Instructors' Terms of Engagement



The information in the pie chart indicate that, a large proportion given by 60% of the instructors were on contract terms of engagement and only 4% of the instructors revealed that they are on permanent terms of employment. The 4% were institutional managers as indicated from the questionnaires. This implies that, none of the instructors who are not holding administrative positions was under permanent terms. Their terms of engagement was a key concern during the data collection exercise where, the majority of the instructors in the sampled institutions sought to know whether the provision of the information about their terms of employment would help them get out of such a situation where their job security was not guaranteed.

The study observed that, most of the instructors were demotivated and had no future in the field and wished that the County Government would consider them for better terms of engagement. Complains about low pay came up at this point in most of the institutions though instructors remunerations was not part of the research objectives. To establish whether the instructors had industrial experience, a questionnaire item was constructed to obtain data about the same. The item was posed to the managers and instructors only. The trainees were exempted from giving their opinion for this item. It was assumed that they were not in a position to provide reliable data about the instructors' capacity building.

4.7.3 Managers and Instructors Responses on Industrial Capacity Building

The concern was whether the instructors attend refresher courses in the industry to equip themselves with knowledge on demands of the evolving industrial needs. Table 4.34 contains the summary of the information obtained.

Table 4.34

Instructors' Attendance to Industrial Refresher Courses

Respondent	YES		NO	
	f	%	f	%
Managers	2	9.5	19	90.5
Instructors	4	4.6	83	95.4

Table 4.34 indicates that, more than 90 % of managers and instructors reveal that they have never had an opportunity to attend refresher courses in the industry. This implies that, the instructors have inadequate industrial experiences and are unable to transfer the industrial working culture to the trainees. It was established that, majority of instructors were fresh graduates from TVET training colleges and universities hence lacking industrial experiences at the point of recruitment. This kind of training gap can be addressed through regular industrial on-job-training, which the County Government of Makueni is not committed to facilitate. In effect, the vocational graduates may fail to meet the requirements of the industry.

This may limit their training capacities which may compromise quality of vocational training. Notably, quality of VET is measured by how the vocational graduates perform in the world of work and not only through academic achievement which brings about certification at the completion of the training course as cited by Arifin et al (2017). Poor quality training lowers vocational education and training social acceptance resulting to low enrolments in the vocational training institutions. Basically, there is need for a new paradigm of VET with a key focus on enhancing training philosophy to the real world of work to facilitate the transfer of industrial working culture to the vocational training graduates.

To establish whether the vocational institutions had adequate instructors, a questionnaire item was constructed and posed to managers, instructors and trainees. They were required to rate statements that sought to establish the adequacy, possession of up-to-date technological capacities and rate of staff turnover based on a Likert scale of 1 to 5. The responses for the managers, instructors and trainees are presented in three separate tables. The questionnaire for managers yielded the data reported in Table 4.35.

Table 4.35

Managers Responses on the Adequacy of Instructors

Statement	Mean	SDev	SA %	A %	NS %	D %	SD %
i). The institution has adequate instructors	2.191	1.167	4.8	14.3	4.8	47.6	28.6
ii). There are some courses which are not offered due to shortage of instructors	4.143	1.153	42.9	47.6	0.0	0.0	9.5
iii). Instructors stay for a short time after employment in your institution.	2.762	1.300	9.5	28.6	4.8	42.9	14.3
iv). The instructors have up-to-date technology to enhance training capacities	2.381	1.024	4.8	14.3	4.8	66.7	9.5
v).There is need to introduce refresher training for instructors.	3.905	0.768	14.3	71.4	4.8	9.5	0.0
Valid N= 21							

The data shown in Table 4.35 indicate that, managers disagree at 47.6 percent that the institution has adequate instructors, 28.6 percent of them strongly disagreed, and 14.3 percent agreed, strongly agreed and not sure were presented at 4.8 percent. The item had a mean rating of 2.191 and Standard deviation of 1.167. This is an

implication that majority of respondents feel that the institution has no adequate instructors. The results also indicate that respondents agree at 47.6 percent that there are some courses which are not offered due to shortage of instructors, 42.9 percent of them strongly agreed and strongly disagreed at 9.5 percent. The item had a mean rating of 4.143 and a Standard deviation of 1.153. Therefore, making a conclusion that there are some courses which are not offered due to shortage of instructors. The results shown in Table 4.46 indicate that, 42.9 % of the informants disagree with the statement that, instructors stay for a short time after employment. Those who agreed were represented by 28.6 percent, 14.3 percent representing those who strongly disagreed, 9.5 percent strongly agreed, while 4.8 of the informants were not sure. The item had a mean rating of 2.762 and a Standard deviation of 1.300. Therefore, most of the informants indicated instructors does not stay for a short time after employment.

The results indicate that, respondents at 66.7 percent of informants disagreed that the instructors have up-to-date technology to enhance training capacities, 14.3% agreed, 9.5 % strongly disagreed, 4.8 % representing strongly agreed and those who were not sure. The item had a mean rating of 2.381 and a Standard deviation of 1.024. An indication that, majority of respondents feel that the instructors have no up-to-date technology to enhance training capacities. The results indicate that, informants at 71.4 percent agreed that there is need to introduce refresher training for instructors, 14.3 percent strongly agreed, disagreed at 9.5 percent while those not sure at 4.8 percent. The item had a mean rating of 3.905 and a Standard

deviation of 0.768. This implies that, majority of the informants feel that there is need to introduce refresher training for instructors. Instructors' responses on adequacy of instructors are reported in Table 4.36.

Table 4.36

Instructors' Responses on Adequacy of Instructors

Statement	Mean	SDev	SA %	A %	NS %	D %	SD %
i). The institution has adequate instructors	2.318	1.280	10.3	12.6	2.3	48.3	26.4
ii). There are some courses which are not offered due to shortage of instructors	3.448	0.949	1.1	71.3	1.1	24.1	2.3
iii). Instructors stay for a short time after employment in your institution.	2.770	1.107	2.3	36.8	4.6	48.3	8.0
iv). The instructors have up-to-date technology to enhance training capacities	2.655	1.055	4.6	24.1	9.2	56.3	5.7
v).There is need to introduce refresher training for instructors.	3.471	1.140	11.5	57.7	4.6	19.5	6.9

Valid N= 87

The data shown in Table 4.36 shows that, instructors disagree at 48.3 percent that the institution has adequate instructors, 26.4 percent of them strongly disagreed,

12.6 percent agreed, strongly agreed at 10.3 and not sure at 2.3 percent. The item had a mean rating of 2.318 and a Standard deviation of 1.280. This is implies that, majority of the respondents feel the institution has no adequate instructors. The descriptive statistics results also indicate that, respondents agree at 71.3 percent that there are some courses which are not offered due to shortage of instructors, 24.1 percent of them disagreed, strongly disagreed at 2.3 percent while those strongly agreed and not sure represented at 1.1 percent. The item had a mean rating of 3.448 and a Standard deviation of 0.949. Therefore, using the results a conclusion was made that, there are no some courses which are not offered due to shortage of instructors.

The results shown in Table 4.46 indicate that, 48.3 percent disagree instructors stay for a short time after employment. Those who agreed were represented by 36.8 percent, 8.0 percent representing those who strongly disagreed, 4.6 percent were not sure, while 2.3 of the informants strongly agreed. The item had a mean rating of 2.770 and a Standard deviation of 1.055. Therefore, most of the informants indicated that, instructors do not stay for a short time after employment. The results indicate that, respondents at 57.5 percent of informants disagreed that the instructors have up to date technology to enhance training capacities, 24.1 percent agreed, 9.2 percent were nor sure, 5.7 percent strongly disagreed while those who strongly agreed at 4.6 percent. The item had a mean rating of 2.655 and a Standard deviation of 1.055. This is an indication that, majority of respondents feel that the instructors have no up-to-date technology to enhance training capacities. The

results indicate that informants at 57.5 percent agreed that there is need to introduce refresher training for instructors, 19.5 percent disagreed , strongly agreed at 11.5 percent while those not sure at 4.6 percent. The item had a mean rating of 3.471 and Standard deviation of 1.140. Majority of respondents feel there is no need to introduce refresher training for instructors. Trainees' responses on adequacy of instructors were reported in Table 4.37.

Table 4.37

Trainees' Responses on the Adequacy of Instructors

Statement	Mean	SDev	SA %	A %	NS %	D %	SD %
i). The institution has adequate instructors	2.019	1.042	4.2	9.6	1.3	53.8	31.1
ii). There are some courses which are not offered due to shortage of instructors	4.045	0.984	31.1	57.1	1.9	5.1	4.8
iii). Instructors stay for a short time after employment in your institution.	3.178	1.344	9.9	51.6	4.2	15.1	19.2
Valid N= 312							

The results in Table 4.37 shows that, trainees disagree at 53.8 percent that the institution has adequate instructors, 31.1 percent of them strongly disagreed, 9.6 percent agreed, strongly agreed at 4.2 and not sure at 1.3 percent. The item had a mean rating of 2.019 and a Standard deviation of 1.042. This is indication that, majority of the respondents feel that the institution has no adequate instructors. The data also indicate that, respondents agree at 57.1 percent that there are some courses which are not offered due to shortage of instructors, 31.1 percent of them strongly agreed, 5.1 percent disagreed, and 4.8 percent strongly disagreed and those who were not sure represented at 1.9 percent. The item had a mean rating of 4.045 and a Standard deviation of 0.984. Therefore, the study findings were used to make a conclusion that, there are some courses which are not offered due to shortage of instructors.

The data shown in Table 4.48 indicate that, 51. 6 percent of trainees agreed instructors stay for a short time after employment. Those who strongly disagreed as represented by 19.2 percent, 15.1 percent representing those who disagreed, and 9.9 percent strongly agreed and those who were not sure were represented at 4.2 percent. The item had a mean rating of 3.178 and a Standard deviation of 1.344. Therefore, most of the informants indicated that instructors do not stay for a short time after employment. The Summary of the informants' responses on the adequacy of instructors is reported in Table 4.38.

Table 4.38

Summary of the Informants' Responses on the Adequacy of Instructors

Statement	**Managers**			**Instructors**			**Trainees**			**overall**
	N	Mean	Std. deviation	N	Mean	Std. deviation	N	Mean	Std. deviation	**Mean**
i). The institution has adequate instructors	21	2.191	1.167	87	2.318	1.280	312	2.019	1.042	**2.176**
ii). There are some courses which are not offered due to shortage of instructors	21	4.143	1.153	87	3.448	0.949	312	4.045	0.984	**3.879**
iii). Instructors stay for a short time after in your institution then transfer or leave for other type	21	2.762	1.300	87	2.770	1.1071	312	3.178	1.344	**2.903**
iv). The instructors have up-to-date technology to enhance training capacities	21	2.381	1.024	87	2.655	1.055	_	_	_	**2.518**
v).There is need to introduce refresher training for instructors	21	3.905	0.768	87	3.471	1.140	_	_	_	**3.688**
Valid N (listwise)	N = 21			N = 87			N=31			

The data in Table 4.38 shows that, majority of the informants (mean=2.176) had an opinion that there is an acute shortage of instructors in the sampled institutions. The acute shortage of such an important input for quality training has made institutions not to offer some courses as indicated by the majority of the managers (mean=4.143). The managers strongly agreed that, the institutions offer limited training courses as a result of inadequate qualified human capital. Most of the institutions were not able to offer, Grade III electrical installation, artisan in plumbing, artisan in motor vehicle technology and grade III electrical wireman.

On the issue of staff turnover, the managers indicated that the instructors have stayed in their current institutions for quite a long time rating the turnover to be low. This implies that, the instructors had reliable information about the status of their institutions and the challenges they face in the course of training. This could also indicate that, the instructor were in a position to figure out the possible causes of low enrolment in their individual vocational institutions. The instructors responses concurs with the managers responses where the majority of the instructors (mean=2.318) indicated that, institutions have inadequate instructors. In effect the institutions were not in a position to offer some of the courses which could attract more trainees due to their prevailing demand. On the issue of rate of instructors' turnover, the instructors' responses revealed a very close difference between their responses (mean=2.770) and those of the managers (mean=2.762), which shows that there was a low instructor's turnover which may not disrupt the skill development process. Table 4.38 shows that, trainees had the same opinions

on the inadequacy of instructors (mean=2.019), as those of the instructors and the managers. The trainees' responses on the adequacy of instructors did not reveal any difference from the managers and instructors responses. They were in agreement (mean=4.044) that, the institutions were not adequately staffed and this made the institutions fail to offer some training courses which could attract more trainees. The rate of instructors' turnover was rated to be low (mean =3.178). The findings of this study confirmed the documented reality about CVETIs in Makueni County.

The County had 108 CVETIs by 2017 with a total enrolment of 2,929 trainees and 204 instructors. The CVETIs had an average of two instructors each. The document states that, the number of instructors is extremely low and is a major contributor to low quality training offered by the institutes. Moreover, most of the institutes are poorly equipped and have inadequately trained instructors giving rise to a high number of under trained graduates who fail to meet the current market demand.

Arafin (2017), investigating on the competencies of a vocational teacher had confirmed that, to address enrolment challenges facing TVET and transform its delivery systems, adequacy of competent vocational education instructors is paramount. In particular Malaysian Government in its way to transform its TVET sector to meet industrial requirements for economic advancement, strategized to map vocational education and training instructors' competencies to develop a competency model for effective training in TVET. This was meant to provide

insights on vocational training profession, address competency gaps among the vocational education and training instructors and improve its attractiveness while focusing on increasing trainees' enrolment. The inadequacy of competent instructors in CVETIs in Makueni County is an indicator that, the institutions are yet to offer Competency-Based-Training as required by the industry. Further, it shows that the vocational graduates are insufficiently prepared for the job performance in the workplace and may find it challenging to meet labour mobility requirements. The study supported the concerns raised in the Competency-Based Education and Training (CBET) policy framework (2019), where it indicates that the TVET sub-sector has been producing poor quality outputs where the graduates are unable to meet the expectations of the employers.

It is official that, the technological advancement and entrepreneurial development in developing Countries will depend on the quality of education and training which will promote entrepreneurship, lifelong learning, social stability and private returns to the individuals who make a deliberate effort to invest in knowledge and skill development. The current TVET sub-sector in Kenya to a large extent is based on theoretical training, which overlooks the assessment of competency which is an important aspect in the world of work. This kind of training insufficiently prepares them for the requirements of the industry (Ministry of Education, 2019).

4.8 Statistical analysis

A statistical analysis for managers' output – independent samples T-test for independent variables was done. To compare mean difference between two categorical variables and test of hypothesis, an independent sample t-test was done at 95% level of confidence. Independent sample t-test compares the means of two independent groups in order to determine whether there is statistical evidence that the associated sample means are statistically different. The T-test was considered to be the most appropriate for this study since the standard deviation was unknown and the sample size for the managers was less than 30 ($n<30$). The statistical analysis for managers' output-independent samples t-test for independent variables is shown in Table 4.39.

Table 4.39

Statistical Analysis for Managers out-put- Independent Samples T-test for Independent Variables

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Programmes meet labour market needs	equal variances assumed	8.513	.033	-.976	5	.374	-1.200	1.229	-4.3608	1.96088
	equal variances not assumed			-1.633	4.000	.178	-1.2000	.73485	-3.2402	.84026
Programmes have attracted more trainees	equal variances assumed	2.540	.172	-.598	5	.576	-.60000	1.00399	-3.1808	1.98084
	equal variances not assumed			-1.000	4.000	.374	-.60000	.60000	-2.2658	1.06587
programmes meet trainee's needs	equal variances assumed	2.037	.213	.352	5	.739	.40000	1.13490	-2.5173	3.31736
	equal variances not assumed			.590	4.000	.587	.40000	.67823	-1.4830	2.28308

Programmes equip trainees with technical skills for self-employment	equal variances assumed	2.143	.203	-1.336	5	.239	-1.0000	.74833	-2.9236	.92365
	equal variances not assumed			-.953	1.207	.492	-1.0000	1.04881	-9.9732	7.97327
Vocational education has been given prominence at the lower levels of schooling	equal variances assumed	.921	.381	.469	5	.659	.40000	.85323	-1.79330	2.59330
	equal variances not assumed			.371	1.337	.761	.40000	1.07703	-7.3105	8.11055
Vocational education has gained high social acceptance	equal variances assumed	.804	.411	1.641	5	.162	.70000	.42661	-.39665	1.79665
	equal variances not assumed			1.300	1.337	.374	.70000	.53852	-3.1552	4.55528
There is adequate training tools and equipment	equal variances assumed	34.286	.002	-1.464	5	.203	-1.2000	.81976	-3.3072	.90725
	equal variances not assumed			-2.449	4.000	.070	-1.2000	.48990	-2.5601	.16017
There is well equipped workshops	equal variances assumed	4.586	.085	-.096	5	.927	-.10000	1.03827	-2.7689	2.56895

	equal variances not assumed			-.064	1.146	.958	-.10000	1.55242	-14.778	14.5786
There is well equipped libraries	equal variances assumed	.399	.556	-.072	5	.945	-.10000	1.38492	-3.6600	3.46005
	equal variances not assumed			-.061	1.436	.959	-.10000	1.64621	-10.650	10.4506
The training equipment are technologically relevant	equal variances assumed	12.857	.016	.945	5	.388	1.00000	1.05830	-1.7205	3.72045
	equal variances not assumed			1.581	4.000	.189	1.00000	.63246	-.75598	2.75598
The institution provide a variety of equipment choices	equal variances assumed	2.540	.172	.598	5	.576	.40000	.66933	-1.3206	2.12056
	equal variances not assumed			1.000	4.000	.374	.40000	.40000	-.71058	1.51058
There is career guidance department offering career services	equal variances assumed	3.729	.069	1.117	19	.278	.52778	.47239	-.46095	1.51651
	equal variances not assumed			1.179	18.901	.253	.52778	.44751	-.40921	1.46476

Trainees are motivated on career choice	equal variances assumed	7.021	.016	1.115	19	.279	.50000	.44863	-.43899	1.43899
	equal variances not assumed			1.026	11.514	.326	.50000	.48721	-.56653	1.56653
The trainees had prior knowledge on CTTIs training programmes	equal variances assumed	.059	.811	.524	19	.606	.25000	.47718	-.74876	1.24876
	equal variances not assumed			.534	18.439	.600	.25000	.46804	-.73165	1.23165
The trainee is informed about career paths available	equal variances assumed	.009	.924	1.384	19	.182	.66667	.48163	-.34140	1.67473
	equal variances not assumed			1.376	16.979	.187	.66667	.48461	-.35587	1.68920
Inadequate career guidance has negatively influenced career progression hence low enrolment	equal variances assumed	2.566	.126	-.722	19	.479	-.36111	.50045	-1.4086	.68634
	equal variances not assumed			-.769	18.614	.451	-.36111	.46954	-1.3453	.62303
the instructors provide guidance on the importance of vocational	equal variances assumed	.169	.685	.000	19	1.000	.00000	.52240	-1.0934	1.09340

education to enhance further training	equal variances not assumed			.000	18.211	1.000	.00000	.51493	-1.0809	1.08093
There is adequate instructors	equal variances assumed	.	.	.080	11	.937	.08333	1.03688	-2.1988	2.36550
	equal variances not assumed			.	.	.	.08333	.	.	.
Some courses are not offered due to shortage of instructors	equal variances assumed	.	.	.277	11	.787	.33333	1.20185	-2.3119	2.97859
	equal variances not assumed			.	.	.	.33333	.	.	.
Instructors stay for a short time after employment	equal variances assumed	.	.	-1.169	11	.267	-1.4167	1.21205	-4.0844	1.25104
	equal variances not assumed			.	.	.	-1.41667	.	.	.
The instructors have up-to-date technology to enhance training capacities	equal variances assumed	.	.	.480	11	.640	.50000	1.04083	-1.7909	2.79086
	equal variances not assumed			.	.	.	.50000	.	.	.

There is need to introduce refresher training for instructors	equal variances assumed	.	.	.411	11	.689	.16667	.40514	-.72505	1.05838
	Equal variances not assumed			.	.	.	.16667	.	.	.

4.8.1 Alternative Hypothesis Stating

$H1_1$: There is statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and managers' administrative experience;

$H1_2$: There is statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of the manager as an administrator in the current institution;

$H1_3$: There is statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the managers;

$H1_4$: There is statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and managers' age.

4.8.2 Independent T-Test for Managers on Relevance of Vocational Courses and Access to CVETIs

$H1_1$: There is statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and managers' administrative experience.

$H0_1$: There is no statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and managers' administrative experience.

An independent sample t-test was conducted to compare mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and managers' administrative experience. Since calculated p-value = 0.458> P-value = 0.05, we reject $H1_1$ and conclude that, there is no statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and managers' administrative experience (M= 3.111, SD = 1.066), t (5) = -0.418, P = 0.458).

4.8.3 Independent Sample T-Test for Managers on Adequacy of Training Equipment and Access to CVETIs

$H1_2$: There is statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of the manager as an administrator in the current institution.

$H0_2$: There is no statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as

training institutions and serving duration of the manager as an administrator in the current institution.

An independent sample t-test was conducted to compare mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of the manager as an administrator in the current institution. Since calculated p-value = 0.608> P-value = 0.05, we reject $H1_2$ and conclude that, there is no statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of the manager as an administrator in the current institution (M= 2.505, SD = 1.052), t (5) = -0.259, P = 0.608).

4.8.4 Independent Sample T-Test for Managers on Career Guidance and Access to CVETIs

$H1_3$: There is statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the managers.

$H0_3$: There is no statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the managers.

An independent sample t-test was conducted to compare mean difference between if career guidance influence access to county vocational education as well as

training institutions and professional qualification of the managers. Since calculated p-value = 0.365> P-value = 0.05, we reject $H1_3$ and conclude that, there is no statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the managers (M= 2.928, SD = 1.093), t (19) = 0.570, P = 0.365).

4.8.5 Independent Sample T-Test for Managers on Adequacy of Competent Instructors and Access to CVETIs

$H1_4$: There is statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and managers' age.

$H0_4$: There is no statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and managers' age.

An independent sample t-test was conducted to compare mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and managers' age. Since calculated p-value = 0.596> P-value = 0.05, we reject $H1_4$ and conclude that, there is no statistically significant mean between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and managers' age (M= 3.076, SD = 1.082), t (11) = 0.312, P = 0.596).

4.8.6 Statistical Analysis for Instructors and Trainees Output

A statistical analysis for instructors and trainees output whose sample was greater than 30 (n>30) was done. In this case, one-way analysis of variance (ANOVA) was used. It was the preferred test on mean between two or more variables for association. The ANOVA was used to test for significant difference between mean of three or more variables between groups and within groups' variations.

ANOVA F-test enables the classification and cross-classification of statistical results to test whether the means of a specific classification have a significant difference. It enabled the researcher to determine whether the given classification significantly affect the results and to test the null hypothesis that the means of three groups of variables are the same against the alternative hypothesis that not all means are the same , at $\alpha = 0.05$ level of significance to test the null hypothesis. One way ANOVA test for instructors' out-put on independent variables is reported in Table 4.40.

Table 4.40

One way ANOVA Test for Instructors' out-put on Independent Variables

		Sum Of Squares	df	Mean Square	F	Sig.
Courses offered meet labour market requirements	Between Groups	8.626	3	2.875	2.124	.103
	Within Groups	112.362	83	1.354		
	Total	120.989	86			
Courses offered have increased the enrolment	Between Groups	.528	3	.176	.437	.727
	Within Groups	33.426	83	.403		
	Total	33.954	86			
Courses offered equip the trainees with employable skills.	Between Groups	2.305	3	.768	1.029	.384
	Within Groups	61.971	83	.747		
	Total	64.276	86			
courses offered equips the trainees with skills for self-employment	Between Groups	.482	3	.161	.273	.845
	Within Groups	48.920	83	.589		
	Total	49.402	86			
Vocational education and training has been given prominence at lower levels of schooling	Between Groups	2.092	3	.697	1.174	.325
	Within Groups	49.310	83	.594		
	Total	51.402	86			
Vocational education has gained high social acceptance	Between Groups	2.746	3	.915	1.169	.327
	Within Groups	64.978	83	.783		
	Total	67.724	86			
There is adequate tools and equipment	Between Groups	1.969	3	.656	.665	.576
	Within Groups	81.962	83	.987		

	Total	83.931	86			
There is well equipped workshops	Between Groups	2.200	3	.733	.839	.476
	Within Groups	72.513	83	.874		
	Total	74.713	86			
There is well equipped libraries	Between Groups	1.248	3	.416	1.108	.351
	Within Groups	31.166	83	.375		
	Total	32.414	86			
Equipment are technologically relevant	Between Groups	5.189	3	1.730	2.236	.090
	Within Groups	64.214	83	.774		
	Total	69.402	86			
The institution provides a variety of equipment choices	Between Groups	.713	3	.238	.281	.839
	Within Groups	70.206	83	.846		
	Total	70.920	86			
Career guidance department	Between Groups	1.905	2	.953	.814	.447
	Within Groups	98.324	84	1.171		
	Total	100.230	86			
Trainees are motivated on career choice	Between Groups	2.887	2	1.443	1.142	.324
	Within Groups	106.171	84	1.264		
	Total	109.057	86			
Trainees had prior knowledge	Between Groups	11.493	2	5.746	3.764	.027
	Within Groups	128.231	84	1.527		
	Total	139.724	86			
	Between Groups	2.791	2	1.396	.975	.382
	Within Groups	120.266	84	1.432		

Trainees are informed about career paths available	Total	123.057	86			
Inadequate career guidance has negatively influenced career progression hence low enrolment	Between Groups	3.601	2	1.801	1.454	.239
	Within Groups	104.008	84	1.238		
	Total	107.609	86			
The instructors provide guidance on the importance of vocational education to enhance further training	Between Groups	3.402	2	1.701	1.312	.275
	Within Groups	108.942	84	1.297		
	Total	112.345	86			
Instructors are adequate	Between Groups	2.019	3	.673	.402	.752
	Within Groups	138.970	83	1.674		
	Total	140.989	86			
Some courses not offered due to shortage of instructors	Between Groups	1.251	3	.417	.454	.715
	Within Groups	76.266	83	.919		
	Total	77.517	86			
Instructors stay for a short time after employment	Between Groups	13.993	3	4.664	4.235	.008
	Within Groups	91.410	83	1.101		

	Total	105.402	86			
The instructors have up-to-date technology to enhance training capacities	Between Groups	.284	3	.095	.082	.969
	Within Groups	95.371	83	1.149		
	Total	95.655	86			
There is need to introduce refresher training for instructors	Between Groups	10.877	3	3.626	2.985	.036
	Within Groups	100.801	83	1.214		
	Total	111.678	86			

4.8.7 Alternative Hypothesis Stating

$H1_1$: There is statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and how long the instructors have been training;

$H1_2$: There is statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of instructors in the current institution;

$H1_3$: There is statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the instructors;

$H1_4$: There is statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and instructors' age.

4.8.8 One-Way Anova Test for Instructors on Relevance to Training Programmes and Access to CVETIs

$H1_1$: There is statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and how long the instructor have been training.

$H0_1$: There is no statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and how long the instructors have been training.

One way ANOVA test was conducted to compare mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and how long the instructor have been training. Since p-value = 0.4518>P-value = 0.05, we reject $H1_1$ and conclude that, there is no statistically significant mean difference between if relevance of training programmes influence access to county vocational education as well as training institutions and how long the instructors have been training as determined by one-way ANOVA (F (3, 83) =1.034, P=0.452).

4.8.9 One-Way ANOVA Test for Instructors on Adequacy of Training Equipment and Access to CVETIs

$H1_2$: There is statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of instructors in the current institution.

$H0_2$: There is no statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of instructors in the current institution. One way ANOVA test was conducted to compare mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and serving duration of instructors in the current institution. Since p-value = 0.466>P-value = 0.05, we reject $H1_2$ and conclude that, there is no statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training

institutions and serving duration of instructors in the current institution as determined by one-way ANOVA (F (3, 83) =1.026, P=0.466).

4.8.10 One-Way Anova Test for Instructors on Career Guidance and Access to CVETIs

$H1_3$: There is statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the instructors.

$H0_3$: There is no statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the instructors.

One way ANOVA test was conducted to compare mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the instructors. Since p-value = 0.282>P-value = 0.05, we reject $H1_3$ and conclude that, there is no statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and professional qualification of the instructors as determined by one-way ANOVA (F (3, 83) =1.577, P=0.282).

4.8.11 One-Way Anova Test for Adequacy of Competent Instructors and Access to CVETIs

$H1_4$: There is statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and instructors' age.

$H0_4$: There is no statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and instructors' age.

One way ANOVA test was conducted to compare mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and instructors' age. Since p-value = 0.496>P-value = 0.05, we reject $H1_4$ and conclude that, there is no statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and instructors' age as determined by one-way ANOVA (F (3, 83) =1.632, P=0.496). One way ANOVA test for trainees' out-put on independent variables is reported in Table 4.41.

Table 4.41

One way ANOVA Test for Trainees' out-put on Independent Variables

		Sum of Squares	df	Mean Square	F	Sig.
Enrolled out of peer encouragement	Between Groups	1.304	1	1.304	1.827	.177
	Within Groups	221.155	310	.713		
	Total	222.458	311			
Desire for vocational skill development	Between Groups	.555	1	.555	1.078	.300
	Within Groups	159.484	310	.514		
	Total	160.038	311			
The only training option available	Between Groups	.699	1	.699	1.219	.270
	Within Groups	177.762	310	.573		
	Total	178.462	311			
To acquire skills for self-employment	Between Groups	.005	1	.005	.010	.922
	Within Groups	148.274	310	.478		
	Total	148.279	311			
People with vocational skills are perceived successful	Between Groups	2.479	1	2.479	3.986	.047
	Within Groups	192.800	310	.622		
	Total	195.279	311			
Programmes meet labour market needs	Between Groups	8.806	2	4.403	2.822	.061
	Within Groups	482.114	309	1.560		
	Total	490.920	311			
Programmes have attracted more trainees	Between Groups	6.346	2	3.173	3.620	.028
	Within Groups	270.833	309	.876		
	Total	277.179	311			
	Between Groups	2.140	2	1.070	2.303	.102

Programmes offered meet trainee's needs	Within Groups	143.539	309	.465		
	Total	145.679	311			
Programmes offered equip trainees with skills for self-employment	Between Groups	.860	2	.430	.699	.498
	Within Groups	190.060	309	.615		
	Total	190.920	311			
Vocational education has been given prominence at lower levels of schooling	Between Groups	.399	2	.200	.432	.649
	Within Groups	142.674	309	.462		
	Total	143.074	311			
Vocational education has gained high social acceptance	Between Groups	.428	2	.214	.772	.463
	Within Groups	85.726	309	.277		
	Total	86.154	311			
There is adequate tools and equipment	Between Groups	.486	1	.486	.540	.463
	Within Groups	279.100	310	.900		
	Total	279.587	311			
There is well equipped workshops	Between Groups	.797	1	.797	.483	.488
	Within Groups	511.152	310	1.649		
	Total	511.949	311			
There is well equipped libraries	Between Groups	.050	1	.050	.118	.731
	Within Groups	130.822	310	.422		
	Total	130.872	311			
Equipment are technologically relevant	Between Groups	.287	1	.287	.247	.619
	Within Groups	359.508	310	1.160		
	Total	359.795	311			
The institution provides a variety of equipment choices	Between Groups	1.112	1	1.112	1.174	.279
	Within Groups	293.398	310	.946		
	Total	294.510	311			

Career department offering career guidance	Between Groups	3.802	3	1.267	.815	.487
	Within Groups	479.195	308	1.556		
	Total	482.997	311			
Trainees are motivated on career choices	Between Groups	20.438	3	6.813	4.293	.005
	Within Groups	488.780	308	1.587		
	Total	509.218	311			
Trainees had prior knowledge on training programmes in CTTIs	Between Groups	34.847	3	11.616	6.839	.000
	Within Groups	523.124	308	1.698		
	Total	557.971	311			
Trainees are informed about career paths available for progression	Between Groups	24.329	3	8.110	7.118	.000
	Within Groups	350.889	308	1.139		
	Total	375.218	311			
Inadequate career guidance has negatively influenced career progression hence low enrolment	Between Groups	1.156	3	.385	.746	.525
	Within Groups	159.122	308	.517		
	Total	160.279	311			
The instructors provide guidance on the importance of vocational education to enhance further training	Between Groups	.586	3	.195	.244	.866
	Within Groups	246.334	308	.800		
	Total	246.920	311			
Adequacy of competent instructors influence access to CTTIs	Between Groups	.140	1	.140	.635	.426
	Within Groups	68.475	310	.221		
	Total	68.615	311			
The institution has adequate instructors	Between Groups	8.642	1	8.642	8.137	.005
	Within Groups	329.242	310	1.062		
	Total	337.885	311			
	Between Groups	.448	1	.448	.461	.497
	Within Groups	300.924	310	.971		

There are some courses which are offered due to inadequacy of instructors	Total	301.372	311

4.8.12 Alternative Hypothesis Stating

$H1_1$: There is statistically significant mean difference between if demand for TVET courses as well as access to CVETIs and trainees' gender;

$H1_2$: There is statistically significant mean difference between if relevance of training courses influence access to county vocational education as well as training institutions and entry level of the trainees;

$H1_3$: There is statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and level of study of the trainees;

$H1_4$: There is statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and trainees' age;

$H1_5$: There is statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and trainees' level of study.

4.8.13 One-Way Anova Test on Trainees Demand for TVET Courses as well as Access to CVETIs

$H1_1$: There is statistically significant mean difference between if demand for TVET courses as well as access to CVETIs and trainees' gender.

$H0_1$: There is no statistically significant mean difference between if demand for TVET courses as well as access to CVETIs and trainees' gender.

One way ANOVA test was conducted to compare mean difference between if demand for TVET courses as well as access to CVETIs and trainees' gender. Since p-value = 0.331>P-value = 0.05, we reject $H1_1$ and conclude there is no statistically significant mean difference between if demand for TVET courses as well as access to CVETIs and trainees gender as determined by one-way ANOVA (F (1, 310) =1.624, P=0.331).

4.8.14 One-Way Anova Test for Trainees on Relevance to Training courses and Access to CVETIs

$H1_2$: There is statistically significant mean difference between if relevance of training courses influence access to county vocational education as well as training institutions and entry level of the trainees.

$H0_2$: There is no statistically significant mean difference between if relevance of training courses influence access to county vocational education as well as training institutions and entry level of the trainees.

One way ANOVA test was conducted to compare mean difference between if relevance of training courses influence access to county vocational education as well as training institutions and entry level of the trainees. Since p-value = 0.300>P-value = 0.05, we reject $H1_2$ and conclude that, there is no statistically significant mean difference between relevance of training programmes influence access to county vocational education as well as training institutions and entry level of the trainee as determined by one-way ANOVA (F (1, 310) =1.772, P=0.300).

4.8.15 One-Way Anova Test for Trainee on Adequacy of Training Equipment and Access to CVETIs

$H1_3$: There is statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and level of study of the trainees.

$H0_3$: There is no statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and level of study of the trainees.

One way ANOVA test was conducted to compare mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and level of study of the trainees. Since p-value = 0.516>P-value = 0.05, we reject $H1_3$ and conclude that, there is no statistically significant mean difference between if adequacy of training equipment influences access to county vocational education as well as training institutions and level of study of the trainee as determined by one-way ANOVA (F (1, 310) =0.512, P=0.520).

4.8.16 One-Way Anova Test for Trainees on Career Guidance and Access to CVETIs

$H1_4$: There is statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and trainees' age.

$H0_4$: There is no statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and trainees' age.

One way ANOVA test was conducted to compare mean difference between if career guidance influence access to county vocational education as well as training institutions and trainees' age. Since p-value = 0.314>P-value = 0.05, we reject $H1_4$ and conclude that, there is no statistically significant mean difference between if career guidance influence access to county vocational education as well as training institutions and trainee age as determined by one-way ANOVA (F (1, 310) =3.343, P=0.310).

4.8.17 One-Way Anova Test for Adequacy of Competent Instructors and Access to CVETIs

$H1_5$: There is statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and trainees' level of study.

$H0_5$: There is no statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and trainees' level of study.

One way ANOVA test was conducted to compare mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and trainees' level of study. Since p-value

= 0.309>P-value = 0.05, we reject $H1_5$ and conclude that, there is no statistically significant mean between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and trainee level of study as determined by one-way ANOVA (F (1, 310) =3.078, P=0.310).

4. 9 Interview Responses on the Influence of Institutional Factors on Access to CVETIs

Twelve managers were interviewed. These included five female managers and seven male managers who had served as managers and deputy manager before and during the devolved governance. According to a majority of the managers, enrolment in most of the vocational institutions was noted to be low. Some of the possible causes were noted to be low social acceptance for TVET courses, low campaigns for TVET courses at both primary and secondary levels of schooling where students are encouraged to pursue university education, negative perception for TVET path way as compared to academic option and the 100% transition policy from primary level of schooling to secondary level.

It is at this point where, most of the managers acknowledged the role of career guidance where it was noted to be a continuous process that should begin at the lower levels of schooling without isolating the society. The managers narrated that by design, the existing training courses are the same courses which were being offered by the former village youth polytechnics and it has been a challenge to

attract the KCSE graduates. In their opinion, the training environment that accommodates KCPE and KCSE graduates contributes to a sense of inferiority where it is perceived to be unconducive for the KCSE graduates with high academic achievement. The responses on the relevance and adequacy of training facilities and equipment revealed that, the training facilities and equipment were inadequate, obsolete, irrelevant and don't reflect the ones in the industry.

It was established that, most of the vocational institutions don't reflect the anticipated standards of TVET institution. This was based on the kind of infrastructure and furniture used in most of these institutions where the trainees are using desks similar to the ones used in lower primary level of schooling. In as much as the managers would wish to improve on the relevance of the infrastructure, financial challenges were cited to be the most contributor to poor infrastructure and dilapidated buildings. It was also narrated that, most of the trainees were not able to pay the levies which in most institutions ranges between ksh 14,800 to 21,700 for the three terms excluding the costs for uniforms, and materials required to be provided by the trainees and examination fees for the final year students which amounts to ksh 5,000.

This high cost of training was noted to have led to high dropout rates mostly towards the examination period when trainees drop out after acquiring minimal vocational skills but, with no certification which could lead to career progression.

To curb this problem, some of the managers noted that, they have devised means to enable the leaners stay in the institutions. The devised means includes the payment of training fees in kind where, the trainees are required to bring food stuffs as part of fees. Such kind of arrangement to a large extend could make the vocational training become more non-attractive. Their responses on the influence of adequacy competent instructors on the trainees' access to CVETIs, majority of them narrated that at the point of admission, the trainees have no information about the instructors' characteristics and has less influence on access. However, it was established that instructors don't attend refresher courses in the industry since the County Government has not established such programmes which could improve the quality of training.

Open general responses revealed that, VET in Makueni County has not attracted the attention of the key educational stakeholders to facilitate grass root level campaigns which makes VET retain its historical perception that, it's an inferior path way as students tend to prepare for academic pathway. The managers had the feeling that, the 100% transition policy and the Government's initiative to support the same is threatening the survival of the CVETIs since for a long time the KCPE graduates have been the majority prospective trainees. To this end, the future of the CVETIs hangs in balance unless they are upgraded to middle level technical training institutions in terms of curriculum reforms, human capital development and infrastructural improvement.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The study sought to investigate institutional factors influencing access to CVETIs in Makueni County. This chapter presents the summary of the study, the conclusion based on the research findings, recommendations and suggestion for further studies. Four research objectives were constructed to guide the collection of the required data. The objectives of the study were, to investigate the extent to which relevance of training courses influenced access to CVETIs in Makueni County, to assess the extent to which the adequacy of training facilities and equipment influenced access to CVETIs in Makueni County, to evaluate the extent to which career guidance influenced access to CVETIs in Makueni County and to find out the extent to which adequacy of competent instructors influenced access to CVETIs in Makueni County.

5.2 Summary of the Study

The process of career decision making is a complex and an involving moment in one's life especially for the adolescent. It is a critical decision that basic education graduates need to make at the end of their compulsory basic education to decide between an academic or Vocational Education and Training (VET) pathway. It is at this point that, the student should be carefully guided with the changing nature of jobs and work place requirements in mind. Making an insight career decision is an important undertaking that creates an opportunity to acquire quality and relevant

skills, knowledge and other attributes that enables a graduate to participate competitively in the knowledge economy and remain competitive in the 21st century labour market. The purpose of this study was to investigate the influence of institutional factors on access to CVETIs in Makueni County. The researcher studied 21 out of 28 registered public vocational institutions in Makueni County where two institutions were used for piloting. The study was guided by Human Capital Theory (HCT). The study employed descriptive research design. The use of this design enabled the researcher to obtain needed information by interviewing, administering a questionnaire to the sampled subjects and making observations. Questionnaires, document analysis guide and an observation check list was used to collect data.

Reliability of the research instruments was determined by computing the Cronbach's alpha reliability coefficient using Statistical Package for Social Science (SPSS). A coefficient of more than (0.772) was obtained. Since the reliability coefficient was above 0.60, the instrument was considered reliable. Qualitative data from closed ended questions was coded, entered and analyzed using SPSS. The study used stratified simple random sampling and purposive sampling technique to obtain a representative sample of participants since the population was not homogeneous. The vocational institutions' managers were purposively selected. The sampled participants were, 21 Managers, 87 Instructors and 316 Trainees. They represented 75.0%, 87.9% and 20.7 % respectively. Descriptive statistics were generated and used in describing and discussing the research findings without

manipulating the respondents' opinion. The standard deviation was used to measure how the responses align with the mean and describe the degree of consistency within the responses. A statistical analysis for managers output – independent sample t-test for independent variables was done. An independent sample t-test was conducted to compare mean difference between two categorical variables and test hypothesis at 95% level of confidence and 5% level of precision. The T-test was considered to be the most appropriate for this study since the standard deviation was unknown and the sample size for the managers was less than 30 ($n<30$). The preliminary test for normality (homogeneity of variances/ equality of variance) was done using levene's test for equality.

A statistical analysis for instructors and trainees output whose sample was greater than 30 ($n>30$), was done using the one-way analysis of variance (ANOVA) as the preferred test on mean difference between two or more variables for association. The ANOVA was used to test for significant difference between mean of three or more variables between groups and within groups' variations. It enabled the researcher to determine whether, the given classification is important in affecting the results and to test the null hypothesis that, the means of three groups of variables are the same against the alternative hypothesis that, not all means are the same at $\alpha = 0.05$ level of significance to test the null hypothesis. Qualitative data from interview and open-ended items in the questionnaire were organized according to themes and discussed. The analyzed data was presented through tabular representation of descriptive statistics tables for each variable. Means, Standard

deviations, a pie chart, bar graphs and frequency distribution tables, were used to represent the data. Interpretation and analysis of the findings were subjected to a review by supervisors and peer researchers.

5.3 Summary of Research Findings

This section presents a summary of the findings based on the objectives of the study.

5.3.1 Influence of Relevant Training Courses on Access to CVETIs in Makueni County

The first objective of the study was to investigate the extent to which relevance of training courses influenced access to CVETIs in Makueni County. The statistical analysis indicated that, all the items in this variable had no statistically significant mean difference between relevance of training courses and access to CVETIs in Makueni, Kenya. In support, interviewees indicated that, training courses were the same courses which were being offered by the former village youth polytechnic before devolution and there is need for curriculum reforms. It was established that, to a large extent, the trainees face competence related problems in labour market based on the training gaps. The results of the study concurred with literature reviewed that, training courses are the key commodity that informs the choice for a training option. Analysis from both the Independent t-test and One way ANOVA test of hypotheses gave similar conclusive results that showed that, the training courses offered by CVETIs in Makueni County has an influence on access. This

shows that, if the training curriculum is reformed to address the labour market requirements, could lead to high demand for VET courses. It was established that, training courses offered by CVETIs does not meet the job market requirements. In average, a majority (73.15 %) of the managers, instructor and trainees revealed that, the training courses have not attracted prospective trainees who meet the minimum admission requirements. This implies that, the courses which were established long before, have not kept the phase of advancing technology in the labour market, and hence could be a contributor to low enrolment in most of the vocational centres making them to remain non-attractive.

5.3.2 Influence of Relevant Training Facilities and Equipment on Access to CVETIs in Makueni County

The second objective of the study was to assess the extent to which adequacy of training facilities and equipment influenced access to CVETIs in Makueni County. It was established that, workshops in most cases were not equipped and designed to fit the purpose, and none of the institutions had a library. The available training equipment were also rated to be technologically irrelevant. In average, 81.27 % of the respondents rated the training facilities to be inadequate, technologically irrelevant and unfit for training in the era of advanced technology. This implies that, the equipment used for training are outdated (obsolete) and not matching with the ones in the industry.

The results from inferential statistics (independent t-test and one way ANOVA) shows that, relevance of training facilities and equipment is significantly related to access in CVETIs. The inadequacy of relevant training facilities was noted to have an influence on training and skill development to vocational training graduates, leading to mismatch of skills among the graduates, which compromises their employability. The vocational institutions in such state could not be responsive to employment demands. Such institutions are considered to be unable to stay relevant and responsive to changing industrial needs, finds it difficult to enhance public perception on the importance and value of TVET, and therefore they are not in a position to produce life-long graduates for long life employability who do not require on-the-job training.

5.3.3 Influence of Career Guidance on Access to CVET Institutions in Makueni County

The third objective of the study was to examine the extent to which career guidance services influence access to CVETIs in Makueni County. In estimating the contribution of career guidance on access to CVET institutions, statistical analysis revealed that, career guidance has an influence on access to CVET institutions. This evidence was supported by interviewees who noted that, career guidance informs the decision to enroll for a training course. They too had an opinion that, students at secondary level of schooling are not prepared to join VET institutions through proper career guidance. It was reported during the manager's interview that, those KCSE graduates who enroll for VET course for some time seem to live an isolated

life before adopting to the new life. The results from the inferential statistics (independent t-test and one way ANOVA) shows that, there is no statistically significant mean difference between career guidance services and access to CVETIs in Makueni County. Large number of sampled vocational institutions had no organized and functional career guidance departments. As a result, the instructors does not provide in-depth information on individual courses. Further, the instructors had not played their role of continued induction as the trainees acclimatize to their new level of training, which could negatively affect the trainees' ambition for further education and training, leading to low enrolment.

It is worth to note that, the gradual career aspiration development during an individuals' early days of development, is shaped by the individual's social environment. Roles of parents in mentorship and career guidance of learners create a positive and enabling environment for motivating the learners to freely discuss their learning areas and career preferences. Inadequate career services implies that, the trainees are denied the opportunity to explore the expectations surrounding the details of their career paths and hence deprived of the advantages that quality education and training could bring. The provision of in-depth information on the realities of a particular course could encourage the trainees to progressively enroll for higher levels of training which could improve the social acceptance of VET.

5.3.4 Influence of Adequacy of Instructors on Access CVETIs in Makueni County.

The fourth objective of the study was to find out the extent to which adequacy of competent instructors influence access to CVETIs in Makueni County. In estimating the contribution of adequacy of competent instructors on access to CVET institutions, the statistical analysis showed that, inadequacy of competent instructors has an influence on access to CVET institutions. During the interview, it was noted that the institutions are facing acute shortage of instructors which has limited the training courses they offer. Statistical tests were conducted to compare mean difference between whether adequacy of competent instructors influences access to CVET institutions as well as training institutions and managers' age. Since calculated p-value = 0.1240> P-value = 0.05, we reject H14 and conclude that, there is no statistically significant mean difference between whether adequacy of competent instructors influences access to county vocational education as well as training institutions and managers' age. (M= 3.0762, SD = 1.08236), t (11) = 0.2892, P = 0.1240).

Further, a one way ANOVA was conducted on the trainees and instructors output to compare mean difference between whether adequacy of competent instructors influences access to County vocational education as well as training institutions and instructors' age. Since p-value = 0.496>P-value = 0.05, we reject H14 and conclude that, there is no statistically significant mean between whether adequacy of competent instructors influences access to county vocational education as well

as training institutions and instructors' age as determined by one-way ANOVA (F (3, 83) =1.5512, P=0.496). It was revealed that instructors related factors have influence on access to CVETIs in Makueni County. This study revealed the institutions were poorly staffed and most of the instructors had low training qualifications. In effect the institutions were not in a position to offer some of the courses which could attract more trainees due to their prevailing demand.

It was also revealed that instructors have never had an opportunity to attend refresher courses in the industry and there no structured policy in the county support such an important programme for capacity building. This implies that the instructors have inadequate industrial experiences and are unable to transfer the industrial working culture to the trainees. The instructors' lack of industrial exposure is an indication of skill deficiency and other competency gaps that may compromise the relevance of VET, hence making it non-attractive. Basically, the relevance of VET is measured by how the vocational graduates perform in the world of work and not only through academic achievement which brings about certification at the completion of the training course.

5.4 Conclusion

The study sought to investigate institutional factors influencing access to CVETIs in Makueni County. The findings of this study showed that, institutional factors have significantly influenced access to CVETIs in Makueni County. It was

established that, training courses offered by the CVETIs does not meet the job market requirements. The findings of the study indicated that, the courses offered by VET institutions have not attracted prospective trainees who meet the minimum admission requirements. This implies that, the courses which were established long before, have not kept the phase of advancing technology in the labour market hence could be a contributor to low enrolment in most of the vocational centres making them to remain non-attractive. CVET institutions are poorly equipped and their buildings are dilapidated except a few, due to poor maintenance and repair. This has made VET have low image as compared to other institutions of higher learning whose general appearance is appealing in terms physical facilities.

The inadequacy of training facilities and equipment has denied the trainees' hands-on-experience since the trainees do not spent most of their time in workshops. It was noted that the institutions do not provide adequate training materials and the trainees are expected to buy. The cost of the training materials increased the cost of training which could be a barrier to those prospective trainees who could not afford and hence reduces the demand for VET which leads to low enrolment. In evaluating the contribution of career guidance on access to vocational education and training institutions, the quantitative descriptive results from the questionnaires showed that, career guidance has an influence on access to vocational education and training institutions. The study found that most of the sampled vocational institutions had no organized and functional career guidance departments. As a result, the instructors does not provide in-depth information on individual courses. Further,

the instructors had not played their role of continued induction as the trainees acclimatize to their new level of training which could negatively affect the trainees' ambition for further education and training leading to low enrolment. The study revealed that, vocational education and training has not gained a high social acceptance in the county. Inadequate career services implies that the trainees are denied the opportunity to explore the expectations surrounding the details of their career paths.

The provision of in-depth information on the realities of a particular course could encourage the trainees to progressively enroll for higher levels of Vocational Education and Training which could improve their productivity and hence increase their chances of employment. The study found out that most of the CVET institutions have inadequately trained instructors. The instructors have inadequate industrial experiences and are unable to transfer the industrial working culture to the trainees. The available training equipment were also rated to be outdated and technologically irrelevant.

5.5 Recommendations of the Study

The main focus of this study was to improve the quality of skill development and increase the trainees' enrolment. The findings of the study revealed that enrolment in County vocational institutions has remained low in Makueni County. Consequently, the following recommendations have been made;

(1) There is need to review the vocational education and training curriculum to provide training opportunities and career advancement that equip the trainees with market oriented knowledge, skills and appropriate attitudes which are key ingredients required for formal and informal employment;

(2) Considering the continuous technological advancement, the County Government of Makueni should consider revenue diversification, to finance the provision of technologically relevant training equipment, in order to enhance the provision of technologically supported training opportunities for the trainees;

(3) The County Government should consider refurbishment and upgrading of the existing old buildings to meet the expected standards of an institution of higher learning since most of the buildings are dilapidated and their appearance is not appealing;

(4) The institutions should establish functional career guidance departments and provide in-depth information about individual course requirements and progressive training path ways available;

(5) Career guidance on vocational education to be introduced at the lower level of basic education;

(6) The government should establish a strategic and sustainable campaign platforms for TVET targeting the parents, guardians and other members of the larger society who participate in the process of assisting the youth on making a choice for a training path way;

(7) There is need to re-plan financing TVET in Kenya. Only those Countries which have made deliberate commitment to invest in TVET have made a mile stone in enhancing sustainable skill development;

(8) The County Government should consider to review the Vocational Education and Training managers' and instructors' terms of employment and remuneration. Based on the findings only 4% from the sampled institutes of the managers are under permanent terms of employment and none of the instructors;

(9) Created a sustainable linkages and collaboration with the private sector, employers and the labour market;

(10) The industry to Provide opportunities for CVET Managers and instructors to regularly update their training experience.

The recommendations are in line with TVETA strategic plan 2019-2023 which focuses on quality and relevance, funding and financing, access and inclusivity to realize the big four agenda. Access and inclusivity encompasses the efforts to ensure that, all trainees regardless of origin and status have access to TVET programmes, which meet the quality training standards equitably to males, females, marginalized, underprivileged and the People with Disabilities (PWDs). The strategic area addresses re-branding and promotion of TVET amongst learners and labour market. It also addresses policy and research as well as benchmarking and adopting relevant international examples of good practice.

Finally, this area includes the strengthening of TVET providers and trainers, and the relationships with the County Governments in relation to TVET development. The focus and support to this strategic area would enhance advocacy, re-branding and repositioning of TVET, promote gender equity and equal opportunities in TVET, promote access and inclusivity, and strengthen the engagement with County Governments and other stakeholders on the development of TVET (Republic of Kenya, 2019). Quality and relevance focuses on the core of TVET delivery, encompassing the setting of standards, regulating, inspecting, registering, licensing and quality assurance of TVET institutions, programmes and trainers, which all form part of the TVET QA- Framework.

Quality and relevance also relate to and impacts the management of the TVET sub-sector as a whole and the relationships with labour market and stakeholders. These strategic areas are also chosen as they reflect the most common themes in national and international TVET policy, strategy and development. The implementation of this strategic area would develop comprehensive training standards, develop and improve the engagement with education and training stakeholders, improve TVET institutions and other training providers (Republic of Kenya, 2019).

5.6 Suggestion for Further Studies

The current study focused on the contribution of institutional factors on access to County Vocational Education and Training institutions in Makueni County. The current study recommends that:

1). Although the study to a large extent achieved the objectives set, there were notable gaps that coupled with the limitations of this; necessitate further studies to be carried out in other Counties;

2). A study to be carried out to investigate the contribution of NGOs, the community, parents and guardians on access to County Vocational Education and Training institutions;

3). A study to be carried out on an assessment on the adoption of rapid change in technology and skill development in County Technical Training Institutions.

4). The study established that, Makueni County has recorded a very low enrolment in most vocational institutions whose capacity is underutilized. The low enrolment is an indicator that, there is a serious problem in TVET sub-sector which calls for further investigation.

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APPENDICES

APPENDIX 1

INTRODUCTION LETTER

Department of Educational
Management, Policy and
Curriculum Studies
University of Nairobi
P.O BOX 30197-00100,
Nairobi.

10th/06/2019

The Manager,

Dear Sir/ Madam,

REF: REQUEST TO CARRY OUT RESEARCH IN YOUR INSTITUTION

I am Ngulu Onesmus Mutuku a Doctorate student at the University of Nairobi. I am conducting a research on "Institutional factors influencing access to County Vocational Education and Training Institutions in Makueni Kenya". I kindly ask you to allow me to conduct research in your institution. Confidentiality and the identity of the respondents will be treated as strictly confidential.

Thank you.

Yours faithfully,

Onesmus Ngulu.

APPENDIX II:

QUESTIONNAIRE FOR MANAGERS

Introduction

This is a county wide study and your vocational institution was randomly selected to participate. In this regard, your participation is paramount to this study. Please respond to all questionnaire items. Your responses and opinion will be treated with confidentiality and for an academic purpose only. The questionnaire is designed to help assess the institutional factors influencing access to County Technical Training Institutions in Makueni. You are requested to provide answers to these questions as honestly and precisely as possible.

SECTION A: Background information

Please tick [√] where appropriate or fill in the required information on the spaces provided.

1. Indicate your gender? Male [ ] Female [ ]

2. Indicate your age bracket.

i) Below 40 years [ ]

ii) 41 – 50 years [ ]

iii) 51 - 60 years [ ]

3. What is your professional qualification?

i) Master Degree [ ]

ii) Bachelor's Degree [ ]

iii) Diploma [ ]

iv) Craft certificate [ ]

4. What is your administrative experience?

i) 1 – 5 years [ ]

ii) 6 – 10 years [ ]

iii) 11 – 15 years [ ]

iv) 16 and above [ ]

5. How long have served as an administrator in this institution?

i) Below 1 year [ ]

ii) 1– 5 years [ ]

iii) 6– 10 years [ ]

iv) 11years and above [ ]

6. Indicate the categories of levels of qualifications offered.

i) Higher diploma [ ]

ii) Diploma [ ]

iii) Artisan grades [ ]

iv) Craft certificate [ ]

SECTION B: Relevance of vocational training courses and access to CTTIs

7 in your opinion, does the relevance of vocational training courses influence access to vocational education and training?

YES [ ] NO [ ]

8. How do you rate the following statements as they relate to access to CTTIs? Please indicate by ticking strongly agree (SA), Agree (A), NOT SURE (NS) Disagree (D), strongly disagree (SD).

S/NO	Statement	SA	A	NS	D	SD
a)	The courses offered meets labour market needs					
b)	The courses offered has attracted more trainees					
c)	The courses offered meets the trainee's needs					
d)	The courses offered equips the trainees with technical skills necessary for self-employment					
e)	Vocational education has been given prominence at lower levels of schooling					
f)	Vocational education has gained high social acceptance					

9. How long has the institution been offering these courses? ---------- years

10. What informed their development?

i) Industrial needs [ ]

ii) Social demand [ ]

ii) Copied from existing institutions [ ]

11. Have they been upgraded to align them with the changing technology?

YES [ ]

NO [ ]

12. In the table below indicate the number of trainees enrolled in various courses for the years indicated and the capacity of your institution.

Year	2014	2015	2016	2017	2018
Capacity					
Enrolment					

Section C: Adequacy of training equipment and access to CTTIs

13. In your opinion, does the nature and availability of training tools and equipment influence access to CVETIs?

YES [ ]

NO [ ]

14. Does the institution provide adequate training materials for practical course work?

YES [ ]

NO [ ]

If NO, where do the trainees get them from?

Buy [ ]

Learn theory only [ ]

Use what is available [ ]

15. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 Not sure (NS), 4 (agree-A) 5 (strongly agree SA)

S/NO	STATEMENT	SD	D	NS	A	SA
a)	There is adequate training tools and equipment					
b)	There is well equipped workshops					
c)	There is well equipped libraries					
d)	The training equipment are technologically relevant					
e)	The institution provides a variety of equipment choices					

SECTION D: Career guidance and trainee's access to CVETIs

16. (a). Does the institution provide career guidance programmes?

YES [ ]

NO [ ]

(b). In your opinion does career guidance influence access to CVETIs?

YES [ ]

NO [ ]

17. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 (Not sure NS) 4 (agree-A) 5 (strongly agree SA)

	Statement	SD	D	NS	A	SA
a)	There is career guidance department offering career advice					
b)	The institution provides in-depth information on the realities of individual courses					
c)	The trainee had prior knowledge on training courses CTTI					
d)	The trainee is informed about career paths available					
e)	Inadequate career guidance has negatively influenced career progression hence low enrolment					
f)	The instructors provide guidance on the importance of vocational education to enhance further training					

SECTION E: Adequacy of competent instructors and access to CTTI

18. In your opinion does the adequacy of competent instructors influence access to CVETIs?

YES [ ]

NO [ ]

Explain your answer.....

19. Are the instructors in your institution trained to handle the Competency Based Education, Training and Assessment?

Yes [ ]

No [ ]

20. Indicate the number of instructors under the following categories in the table bellow;

Terms of engagement	Trained	Untrained
Permanent		
Contract		
Temporary		

21. a) Do the trainers attend refresher courses in the industry to equip them with knowledge of the evolving industry needs?

YES [ ] NO [ ]

b) If yes, how often?

i) Every year [ ]

ii) After every two years [ ]

iii) After five years [ ]

c) How long does the refresher course take?

i) A week [ ]

ii) A month [ ]

iii) Two months [ ]

22. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 Not sure (NS) 4 (agree-A) 5 (strongly agree SA)

	Statement	SD	D	NS	A	SA
a	The institution has adequate instructors					
b	The are some courses which are not offered due to shortage of instructors					
c	Instructors stay for a short time after employment					
d	The instructors have up-to-date technology to enhance training capacities					
e	There is need to introduce refresher training for instructors					

Thank you for participation.

APPENDIX III:

QUESTIONNAIRE FOR INSTRUCTORS

Introduction

This is a county wide study and your vocational institution was randomly selected to participate. In this regard, your participation is paramount to this study. Please respond to all questionnaire items. Your responses and opinion will be treated with confidentiality and for an academic purpose only. The questionnaire is designed to help assess the institutional factors influencing access to County Vocational Education and Training Institutions in Makueni. You are requested to provide responses to these questions as honestly and precisely as possible.

SECTION A: Background information

Please tick [√] where appropriate or fill in the required information on the spaces provided.

1. Indicate your gender? Male [ ] Female [ ]

2. Indicate your age bracket.

i) Below 40 years [ ]

ii) 41 – 50 years [ ]

iii) 51 – 60 years [ ]

3. What is your professional qualification?

i) Master Degree [ ]

ii) Bachelor's Degree [ ]

iii) Diploma [ ]

iv) Craft certificate [ ]

v) Untrained [ ]

4. For how long have you been training?

i) 1 – 5 years [ ]

ii) 6 – 10 years [ ]

iii) 11 – 15 years [ ]

iv) 16 and above [ ]

5. How long have served as an instructor in this institution?

i) Below 1 year [ ]

ii) 1– 5 years [ ]

iii) 6– 10 years [ ]

iv) 11years and above [ ]

6. Indicate the categories of levels of qualifications offered.

i) Higher diploma [ ]

ii) Diploma [ ]

iii) Artisan grades [ ]

iv) Craft certificate [ ]

SECTION B: Relevance of vocational training courses and access to CVETIs

7. In your opinion, does the relevance of vocational training courses influence access to vocational education and training?

YES [ ] NO [ ]

8. How do you rate the following statements as they relate to access to CTTIs? Please indicate by ticking strongly agree (SA), Agree (A), NOT SURE (NS) Disagree (D), strongly disagree (SD).

S/NO	Statement	SA	A	NS	D	SD
a)	The courses offered meets labour market needs					
b)	The courses offered has attracted more trainees					
c)	The courses offered meets the trainee's needs					
d)	The courses offered equips the trainees with technical skills necessary for self-employment					
e)	Vocational education and training has been given prominence at lower levels of schooling					
f)	Vocational education has gained high social acceptance					

9. How long has the institution been offering these courses?.....years

10. What informed their development?

i) Industrial needs [ ]

ii) Social demand [ ]

iii) Copied from existing institutions [ ]

11. Have they been upgraded to align them with the changing technology?

YES [ ]

NO [ ]

12. In the table below indicate the number of trainees enrolled in the courses you train for the years indicated.

Course……..

Year	2014	2015	2016	2017	2018
capacity					
Enrolment					

Section C: Adequacy of training equipment and access to CTTI

13. In your opinion, does the nature and availability of training tools and equipment influence access to CVETIs?

YES [ ]

NO [ ]

14. Does the institution provide adequate training materials for practical course work?

YES [ ]

NO [ ]

If NO, where do the trainees get them from?

Buy [ ]

Learn theory only [ ]

Use what is available [ ]

15. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 Not sure (NS), 4 (agree-A) 5 (strongly agree SA)

S/NO	STATEMENT	SD	D	NS	A	SA
a)	There is adequate training tools and equipment					
b)	There is well equipped workshops					
c)	There is well equipped libraries					
d)	The training equipment are technologically relevant					
e	The institution provides a variety of equipment choices					

SECTION D: Career guidance and trainee's access to CTTIs

16. (a). Does the institution provide career guidance services?

YES [ ]

NO [ ]

(b). In your opinion does career guidance influence access to CVETIs?

YES [ ]

NO [ ]

17. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 (Not sure NS) 4 (agree-A) 5 (strongly agree SA)

	Statement	SD	D	NS	A	SA
a)	There is career guidance department offering career advice					
b)	The institution provides in-depth information on the realities of individual courses					
c)	The trainee had prior knowledge on training courses CTTI					
d)	The trainee is informed about career paths available					
e)	Inadequate career guidance has negatively influenced career progression hence low enrolment					
f)	The instructors provide guidance on the importance of vocational education to enhance further training					

SECTION E: Adequacy of competent instructors and access to CTTI

18. In your opinion does the adequacy of competent instructors influence access to CVETIs?

YES [ ]

NO [ ]

Explain your answer.....

19. As an instructor have you been trained to handle the Competency Based Education, Training and Assessment (CBETA)?

Yes [ ]

No [ ]

20. a) Do the instructors attend refresher courses in the industry to equip them with knowledge of the evolving industry needs?

YES [ ]

NO [ ]

b) If yes, how often?

i) Every year [ ]

ii) after every two years [ ]

iii) after five years [ ]

c) How long does the refresher course take?

i) a week [ ]

ii) a month [ ]

iii) two months [ ]

21. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 Not sure (NS) 4 (agree-A) 5 (strongly agree SA)

	Statement	SD	D	NS	A	SA
a	The institution has adequate instructors					
b	The are some courses which are not offered due to shortage of instructors					
c	Instructors stay for a short time after employment					
d	The instructors have up-to-date technology to enhance training capacities					
e	There is need to introduce refresher training for instructors					

Thank you for participation.

Appendix IV:

QUESTIONNAIRE FOR TRAINEES

The questionnaire is designed to help assess the institutional factors influencing access to County Vocational Education and Training Institutions in Makueni County. Please tick [√] where appropriate or fill in the required information on the spaces provided.

SECTION A: Background information

1. Indicate your gender? Male [ ] Female [ ]

2. Indicate your age bracket.

Below 15 years [ ]

15 - 20 years [ ]

21 - 25 years [ ]

Above 25 years [ ]

3. Level of study

a) Artisan grade III [ ]

b) Artisan grade II [ ]

c) Artisan grade I [ ]

4.(a) Indicate your entry.

KCPE [ ] KCSE [ ]

Artisan grade III [ ] Artisan grade II [ ]

Others [ ] specify……

b). Indicate the training course you are taking in this institution……..

c) How did you first learn about the vocational education and training option?

i. Through family members [ ]

ii. Through friends/peers [ ]

iii. Through the media [ ]

iv. Through self-discovery [ ]

v. Through teachers in the previous school [ ]

SECTION B: Demand for TVET courses and access to CVETIs.

5. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 Not sure (NS) 4 (agree-A) 5 (strongly agree SA)

	Statement	SD	D	NS	A	SA
a	I enrolled out of encouragement from my peers					
b	I enrolled because of my desire for vocational skill development					
c	I enrolled to acquire skills for self-employment					
d	I enrolled because it was the only training option available					
e	I enrolled because people with vocational skills are perceived successful in the society					

SECTION C: Relevance of training courses and access to CVETIs

6. How do you rate the following statements as they relate to access to CTTIs? Please indicate by ticking strongly agree (SA), Agree (A), NOT SURE (NS) Disagree (D), strongly disagree (SD).

S/NO	Statement	SA	A	NS	D	SD
a)	The courses offered meets labour market needs					
b)	The courses offered has attracted more trainees					
c)	The courses offered meets the trainee's needs					
d)	The courses offered equips the trainees with technical skills necessary for self-employment					
e)	Vocational education has been given prominence at lower levels of schooling					
f)	Vocational education has gained high social acceptance					

SECTION D: Adequacy of training equipment and access to CTTI

7. In your opinion, does the nature and availability of training tools and equipment influence access to CTTI?

YES [ ] NO [ ]

8. Does the institution provide adequate training materials for practical course work? YES [ ] NO [ ]

If NO, where do the trainees get them from?

Buy [ ]

learn theory only [ ]

use what is available [ ]

9. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 Not sure (NS), 4 (agree-A) 5 (strongly agree SA)

S/NO	STATEMENT	SD	D	NS	A	SA
a)	There is adequate training tools and equipment					
b)	There is well equipped workshops					
c)	There is well equipped libraries					
d)	The training equipment are technologically relevant					
e	The institution provides a variety of equipment choices					

SECTION E: Career guidance and access to CTTIs

10. a) Does the institution provide career guidance programmes?

YES [ ] NO [ ]

b) Does career guidance influence trainees' access to CTTIs?

YES [ ] NO [ ]

11. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 (Not sure NS) 4 (agree-A) 5 (strongly agree SA)

	Statement	SD	D	NS	A	SA
a)	There is career guidance department offering career advice					
b)	The institution provides in-depth information on the realities of individual courses					
c)	The trainee had prior knowledge on training courses CTTI					
d)	The trainee is informed about career paths available					
e)	Inadequate career guidance has negatively influenced career progression hence low enrolment					
f)	The instructors provide guidance on the importance of vocational education to enhance further training					

SECTION F: Adequacy of competent instructors and access to CTTI.

12. In your opinion does the adequacy of competent instructors influence access to CTTIs? YES [ ] NO [ ]

12. To what extent do you agree with the following statements? Use a scale of 1-5 where: 1(strongly disagree-SD), 2 (disagree-D), 3 Not sure (NS) 4 (agree-A) 5 (strongly agree SA)

	Statement	SD	D	NS	A	SA
A	The institution has adequate instructors					
B	The are some courses which are not offered due to shortage of instructors					
C	Instructors stay for a short time after employment					
D	The instructors have up-to-date technology to enhance training capacities					

E	There is need to introduce refresher training for instructors					

13. Briefly state the challenges faced by the youth in joining vocational education and training institutions .....

……

Thank you for participation.

APPENDIX V

INTERVIEW SCHEDULE MANAGERS

1. a) Enrolment in vocational education has been a key concern as the young people graduating annually from secondary school system increase at high rate. How is enrolment in your institution?

b). if the enrolment is low, what could be underlying issues?

2. a) The main objective of vocational education and training is to equip the vocational education and training graduates with employable skills. Do the training courses meet this critical objective?

b). How often do the CVETIs carry out academic research to inform the designing of their training courses?

3. a) Adequate training facilities and equipment are key element for enhancing relevance of vocational education and training. Does the institution have adequate facilities and equipment?

b). Can inadequacy of training facilities and equiment lead to low enrolment?

4. a) Does the institution have adequate and well trained instructors?

Yes [ ] No [ ]

b) If No, can the inadequacy of well-trained instructors lead to low enrolment?

c) Do the trainers attend refresher courses in the industry to meet the evolving industry needs? Yes [ ] No [ ]. If yes how is it organized in terms of time and the key players?

5. To what extent has the county informed the prospective trainees about the training opportunities in CVETIs in order to increase trainee's access to vocational education and training?

Thank you for your participation.

APPENDIX VI

OBSERVATION CHECK LIST

	Resources	Available	Not available	Adequately equipped	Inadequate equipped
1	Workshops				
2	Libraries				
3	Training equipment				
4	Training materials				
5	Furniture/ working tables				
6	Tools				

The rating in the observation was based on the key;

Poor- when the facility or equipment not observed,

Fair- when the facility was observed but not adequately equipped based on the number of trainees enrolled for a particular trade,

Good-when the facility is observed and considered adequately equipped based on the number of trainees taking that particular course and

Very good-when the facility is observed and had more training equipment than the enrolled trainees in that particular course.

APPENDIX VII

DOCUMENT ANALYSIS

	Required information	Document to check	comments
A1	Training materials inventory	Procurement records	
A2	Career guidance services	Career guidance departmental minutes and records	
A3	Training courses	Admission letters, brochures	
A4	Enrolment from 2015-2019	Enrolment records, admission records, class attendance register	
A5	Instructors capacity building	Records of workshops and industrial attachment attended	
A6	Past KCSE results	Records from education county offices	
A7	County VET enrolment	Records from department of education and ICT Directorate technical training	
A8	Entry behavior	Admission policy, individual records for sampled trainees	

APPENDIX VIII

RESEARCH LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **622996**

Date of Issue: **09/September/2019**

RESEARCH LICENSE

This is to Certify that Mr.. ONESMUS NGULU of University of Nairobi, has been licensed to conduct research in Makueni on the topic: INSTITUTIONAL FACTORS INFLUENCING ACCESS TO COUNTY VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS IN MAKUENI COUNTY, KENYA for the period ending : 09/September/2020.

License No: **NACOSTI/P/19/1152**

622996

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

1. The License is valid for the proposed research, location and specified period
2. The License any rights thereunder are non-transferable
3. The Licensee shall inform the relevant County Governor and County Commissioner before commencement of the research
4. Excavation, filming and collection of specimens are subject to further necessary clearence from relevant Government Agencies
5. The License does not give authority to tranfer research materials
6. NACOSTI may monitor and evaluate the licensed research project
7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one of completion of the research
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

National Commission for Science, Technology and Innovation off Waiyaki Way, Upper Kabete,
P. O. Box 30623, 00100 Nairobi, KENYA
Land line: 020 4007000, 020 2241349, 020 3310571, 020 8001077
Mobile: 0713 788 787 / 0735 404 245
E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke
Website: www.nacosti.go.ke

Approved
CHIEF OFFICER - EDUCATION
19/5/19

APPENDIX VIII

RESEARCH AUTHORIZATION FROM COUNTY COMMISSIONER.

THE PRESIDENCY
MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT

Telegram:
Telephone: 0743-987-177
Fax:
Email: ***cc.makueni@interior.go.ke***

COUNTY COMMISSIONER
MAKUENI COUNTY
P.O. Box 1-90300
MAKUENI

Ref: MKN/CC/ADM.6/1 VOL.III/245

19th September, 2019

Onesmus Ngulu
University of Nairobi
P.O. Box 92 - 00902
KIKUYU

RE: RESEARCH AUTHORIZATION

Reference is made to Director General National Commission for Science Technology and Innovation Research License **Ref. No. NACOSTI/P/19/1152 dated 9th September, 2019** on the above subject.

You are hereby authorized to undertake research on ***"Institutional Factors Influence Access to County Vocational Education and Training Institutions in Makueni County"*** for a period ending ***9th September,*** **2020.**

By a copy of this letter the Deputy County Commissioners are requested to give you the necessary assistance.

B.K. NICHOLAS
FOR: COUNTY COMMISSIONER
MAKUENI

c.c.
County Director of Education
MAKUENI COUNTY

Deputy County Commissioner
MAKUENI COUNTY