

**INFLUENCE OF STRATEGY IMPLEMENTATION REVIEW IN TECHNICAL AND
VOCATIONAL EDUCATION AND TRAINING INSTITUTIONS ON GRADUATE
EMPLOYABILITY IN KENYA**

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DECLARATION

Declaration by the Candidate

I declare that this research thesis is my original work and has not been presented in any other university.

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DEDICATION

This thesis is dedicated to my irreplaceable mother and my perseverant father for raising me and engraining in me the passion to read and to value academic degrees. May their souls rest in peace, Amen.

ABSTRACT

The TVET sector is at the center of expansion and growth of Kenya's economy, despite the challenges. This is despite many challenges facing the currently over 2,300 TVETs boasting a population of more than 590,000 students. Due to the challenges, the sector may not be in a position to regularly carry out strategy reviews to provide TVET graduates the knowledge and skills that match the ever-changing job market. This study aimed to establish how strategy reviews in Kenya's TVET institutes impacts employability of graduates from these colleges. Specific objectives included assessing the influence of situational analysis, institutional objectives, curriculum implementation strategies, and operational departmental plans on employability of those who graduate from the TVET educational entities. Three theories were used, which included human capital, strategic, and resource-based view. The study applied survey research design approach to select 353 respondents from 506 TVET establishments where 3036 individuals in key management positions provided the sampling frame. These were selected from TVET colleges in the larger Nairobi metropolitan countries comprising of Machakos, Nairobi, Kajiado, and Kiambu. The Yamane formula was used in the calculation of the final sample where they were selected based on their different management strata. Specifically, the sample consisted of 59 principals, registrars, and deans of students in equal number, and 176 HODs. A semi-structured questionnaire was used for data collection to capture quantitative and qualitative data. A pilot test was used to test validity and reliability of the research tool. Statistical data analysis was done descriptively and inferentially aided with SPSS 25 computer software, as well as Excel worksheets. Qualitative data analysis was done thematically. Tables, figures, and narratives were used to present analyzed data. From the sample of 353, 301 respondents participated in the research, which was 85% response rate. The findings indicated that TVET institutional review influenced employability of their graduates. Despite the need for regular reviews, there were a number of influencing factors, including availability of resources. Additionally, majority of TVETs had clear institutional objectives as a foundation for imparting and improving students' employability skills. The findings further revealed that at least most TVETs carried out curriculum review on regular basis, commonly affirming that the reviews met objectives of enhancing students' employability. The study also noted that majority of the TVET institutions had independent departmental plans, which worked in favour of enhancing employability of TVET students. Regression analysis revealed a significant relationship between strategy review which focused on situational analysis, institutional objectives, curriculum implementation strategies and operational departmental plans, and TVET graduates employability. The research concluded that strategy review among Kenya's TVET institutes significantly influenced graduates' employability, as this determined the kind of skills and quality of training provided. The study recommended creating of sufficient budgets, setting of clear objectives, emphasis on creativity and innovation, and encouraging of interdependent operational departmental plans for effective execution of strategy review. These steps will be essential in enhancing strategy review for TVETs as an important component of overall preparation of students for emerging job opportunities in different sectors of the economy. Future studies can be initiated on dynamics that constrain strategy review in TVET institutes in Kenya while affecting the graduates' employability.

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LIST OF ABBREVIATIONS

AFDB	African Development Bank
CBET	Competence-Based Education and Training
CDACC	Curriculum Development, Assessment and Certification Council
CPD	Continuing Professional Development
HELB	Higher Education Loans Board
HOD	Head of Department
ILO	International Labour Organization
IMFWEQ	International Monetary Fund World Economic Outlook
JICA	Japan International Cooperation Agency
KEPSA	Kenya Private Sector Alliance
KISE	Kenya Institute of Special Education
KNEC	Kenya National Examination Council
KUCCPS	Kenya Universities and Colleges Central Placement Services
M&E	Monitoring and Evaluation
MOE	Ministry of Education
OECD	Organization for Economic Cooperation and Development
RISDP	Regional Indicative Strategic Development Plan
SADC	Southern African Development Community
SGD	Sustainable Development Goal
SSA	Sub-Saharan Africa
TVET	Technical and Vocational Education and Training
TVETA	Technical and Vocational Education and Training Authority
UK	United Kingdom

UNESCO United Nations Educational, Scientific and Cultural Organizations

USA United States of America

VET Vocational Education and Training

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The technical and vocational education and training (TVET) sector worldwide is geared towards imparting hand-on skills and knowledge on students for more competitive work performance in different sectors of the economy (Niittylahti et al., 2023). TVET refers to the form of learning which enables students to acquire specialized and hands-on skills and enhanced talents in different sectors of employment. These can be gained through formal or school-based and informal or work-based learning methods (Malle, 2016). TVET institutions occupy a critical space in the economy across the world in terms of producing graduates with job-specific skills in different sectors. There is also emphasis on employability of TVET graduates in the ever-evolving employment market but which still remain debatable. In its simplest definition, employability refers to an individual's quality of being engaged in paid work (Huisman, 2018).

Across the world, TVET institutions have been proved as very critical in equipping young people with the requisite skills in different important sectors of the economy. However, sustainability of quality education and training in TVET institutions may not be guaranteed without clear focus on situational analysis, institutional objectives, curriculum implementation strategies, and operational departmental plans of TVET institutions that could have significant impact on the ability of the institutions to produce graduates with high level of employability in Kenya. There is empirical evidence that TVET is very instrumental for the learners to acquire practical and readily employable skills for the job market (Quintini & Martin, 2014). Training by the TVET institutions helps individuals to obtain skillsets and knowledge which are important for effective

participation in economic, social, and technological development and innovations, hence enabling holistic development and growth of the economy (International Labour Organization [ILO], 2014).

In many countries in the world, other areas of education which are also very important in facilitating knowledge acquisition among citizens include basic, middle level, and higher institutions of learning, including post-graduate studies. Notably, each of these areas serves a particular essential education purpose (Cedefop, 2017). On its part, the TVET sector aims to purposefully train and prepare students to become independent in their choice of careers. In this sense, the right set of skills and capabilities are stressed which are decisively and consistently pursued from an early post-secondary schooling age (Cedefop & European Commission, 2016). Employability skills entail exchangeable abilities required by an individual to project them competitive in the job market. Oeben and Klumpp (2021) further observe that TVET graduates are usually expected to have a good technical mastery and knowledge of their area of specialization where any prospective employer has confidence that the employee has the right set of skills for better job outputs. Hoftijzer et al. (2020) affirm that employability of any person intent on developing their career is ideally linked to their knowledge, skills, and attitudes, and how they use such assets to meet the employer's work targets. Hockenos (2018) has enumerated some of the employability skills as communication and interpersonal skills, problem-solving, self-motivation, and organizational acumen.

1.1.1 Global Perspective on TVET and Graduate Employability

In the highly globally competitive and dynamic work environment in virtually every economic field, there is empirical evidence that several companies are increasingly recruiting many people

across the world from diverse cultural backgrounds and social orientations (Ogwengo & Osano, 2017). Creating harmonious working environment under such circumstances requires high level of tolerance and being considerate about varied individual or collective employment needs. Valuing diversity and social differences at the work place therefore emerges as one of the essential employability skills in the job market today (Shimizu, 2017). However, the question may be extent to which TVET graduates from different institutions across the world are equipped to meet this requirement. The cutthroat competition in the private corporate sector and the increasing need for a more responsive public service have equally necessitated the need for employees to have good negotiation skills for achieving win-win outcomes for their employers. Although negotiation skills may not be a preserve of TVET graduates Kitonga et al. (2016) as an important employability quality, it would be important to understand the extent to which negotiation skills contribute to TVET graduates' employability.

Regardless of the country, the basic purpose for TVET is to help the workforce to obtain essential technical and professional skills for effective national socioeconomic and industrial advancement and growth. The emphasis is usually on equipping students with sufficient relevant knowledge and abilities for self-employment, or increased quality outputs for those in salaried employment (Okwelle et al., 2017). The TVET's rising popularity is largely anchored on universal economic improvement agenda based on the UN philosophy of globalization driven by the G20 countries and other multinationals (Chukwumaijen, 2005). However, to ensure that TVET sector unlocks its huge prospects related to economic and social improvement, there must be continued transformation and regeneration of the TVET systems (Obwoye & Kibor, 2016).

There are many relevant policy guidelines for promoting and implementation of TVET at global, regional, and national levels, but which require purposeful review to meet the ever-evolving employment needs in different spheres of the economy. Despite the central place occupied by TVET as an important instrument of sustainable development in many countries, especially in developing regions, TVET operations and management seem not to have been properly mainstreamed in the economic transformation initiatives of a number of these countries (Stone, 2012). The TVET strategy review is about the response to the existing policies, especially driven by the need to meet labour market demands of the 21st century through proper training of the TVET graduates (Serumu, 2015). Oviawe et al. (2017) assert that integration of sustainable development of TVET may include reviewing of curriculum, learning content and general learning policies and practices as important indicators. However, strategy review can be done within a given scope, such as by assessing the influence of situational analysis, institutional objectives, institutional curriculum, and departmental plans on TVET graduate employability.

In 2015, the UNESCO approved a strategic blueprint for 2016-2021 for the TVET education subsector which aimed to support its Member Countries in enhancing application and proficiency related to respective TVET systems in order to effectively impart needed skills to the learners (Malle, 2016). The strategy blueprint also aimed at equipping young learners with employability and long-term entrepreneurial skills which would be very critical in propelling countries towards achieving Vision 2030 development blueprint in general. This move was further intended for the UNESCO to progressively support the Member Countries to design and implement cross-cutting interventions which included identifying skills to inform better TVET policies and programmes while harmonizing qualifications across various countries (Ifeyinwa & Serumu, 2016). In the US, the main aims for TVET sector include increasing access to college education among as many

young people as possible, enhancing quality learning outcomes, and improving higher education completion rate among the general population for increased income opportunities and economic improvement based on long-term career prospects for the young generation (Green, 2012). But while the national policy of the US focuses on addressing challenging academic and technical standards for students, it may still be unclear the extent to which strategy impacts TVET graduate employability (Kuczera & Field, 2013). Hence, there is the need for initiating and implementing research to understand policies and practices that can improve TVET programmes, services, and activities.

In the United Kingdom (UK), according to the UNESCO, there are various developmental shareholders in the TVET strategy review where collective initiatives have been mounted, with the 2030 Agenda as the guiding principle. A number of activities have revolved around involving bilateral TVET strategy review partner organizations and UN agencies to enhance and expand international partnership, advocacy, and mobilization of support for more vibrant curriculum and learning implementation processes (United Nations Educational, Scientific and Cultural Organizations [UNESCO], 2016). However, in a 2011 UK government report on review of vocational education dubbed *World Review of Vocational Education*, a number of gaps emerged. While the report noted that several TVET graduates had the best apprenticeships which were highly regarded by employers and apprentices, some of the courses were oversubscribed, thereby overstressing financial, infrastructural and teaching human resources of TVETs (United Kingdom Government [UK], 2011).

In Germany, TVET training is indispensable in capacity building of the young people and equipping them with the right skills for the country's employment and socioeconomic

expansion (Cedefop, 2020). This kind of training progressively helps the country to transform its economy by releasing into the market very highly trained professionals with various skills in different fields (Ball, 2019). Combining of public and private funding has created and maintained a strong and sustainable financial support to the student fraternity, thereby helping to meet school fees needs even for learners who are financially disadvantaged (Federal Institute for Vocational Education and Training, 2014). Effectively established VET research, such as the Institute for VET, significantly helps in enhancing institutional innovation support capacity and general curriculum development and maintenance in the Germany VET system. However, the German VET system faces several sectoral and occupational structural dynamics surrounding the labour market, especially in technical career fields. Guellali et al. (2017) observes that the rising skills requirements and educational expansion dynamics which have greatly increased the number of high school leavers eligible for tertiary education tend to seriously strain VET colleges in Germany (Cedefop, 2020). Furthermore, despite Germany having many pathways for VET tertiary education to encourage learners in different fields of specialization, the absorption rate in VET colleges still remains not very satisfactory (Hippach-Schneider et al., 2007).

Similar impact of the TVET institution continues to manifest in different fields of the economy. A recent report by the OECD on the uptake of VET studies by upper secondary leavers in Brazil places the country's enrolment at a disadvantaged position relative to other nations in the region (Organization for Economic Cooperation and Development [OECD], 2020). Although the TVET sector reforms is a welcome move, education analysts observe that the reforms may not fully materialize unless there is quality teaching where learners are effectively equipped for employment later after school completion (International Labour Organization [ILO], 2020). It is also envisaged that expansion of the VET programmes will increase the demand for VET tutors,

while at the same time encouraging programmes are progressively reviewed in order to meet the employment market demands. Although education review in the Brazilian TVET sector has been ongoing for sometimes, with tangible results, not all the individuals who go through the system have the opportunity to effectively showcase obtained skills (Pilz, 2016). On the other hand, the TVET reforms in Brazil are critical in ensuring that majority of the young people have the opportunity to obtain the right skills for the technical work which is very essential in the whole question of the country's development (Ajithkumar, 2017).

In Australia, according to United Nations Educational, Scientific and Cultural Organizations (UNESCO, 2022), the country has a fairly well developed vocational training system, with a high sense of public confidence on policy and implementation plans. Some of the strengths of the system include strong shareholder engagements, with an elaborate qualification system and a flexible entry process based on local circumstances. Additionally, decision making is widely based on research and data that help to make well-informed decisions on key issues. However, there are challenges, such as cases of overlapping responsibilities by key stakeholders and lack of clear funding policies which are consistent with human resource needs. There are also sometimes gaps in the relevant data, and rigid apprenticeships which tend to emphasize more on the duration they take rather than competencies gained by students at any given time (Chandrasekar, 2015). Besides, training curriculum and implementation processes are unsatisfactory amidst a more rigid teaching workforce in terms of delivery processes in class (Lukman et al., 2017). A recent government initiated report on TVET education in Australia gave recommendations based on 6 key areas. These included strengthening of quality assurance structures, developing effective qualification systems, coming up with simplified skills matching processes, and instituting better career information sharing channels. There was also the need to

implement clearer pathways for secondary schooling, and more efficient and accessible funding programs for disadvantaged students (Australian Government, 2019).

In India, Chandrasekar and Murugesan (2019) established that several TVETs did not always give the right skills to the learners due to inadequate finances and very well-trained training staffs as well as learning equipment and infrastructure. In China, TVET graduates often find jobs after completion of their studies (UNESCO, 2018). The Chinese government has also established a policy framework for encouraging high schools, colleges and the Ministry of Education to work in partnership to promote vocational education and implement modern apprenticeship program where TVET graduates are able to obtain practical skills before they can join the job market. Despite high employment prospects by TVET graduates in China, technical evaluations the showed that not many students are attracted to the TVET learning model due to the government's inability to implement major policy reforms that could make TVET attractive to young people and working professionals with the intent to further their professional skills.

1.1.2 Regional Perspective on TVET and Graduate Employability

In Africa and developing countries in general where there is a relatively big percentage of skilled yet unemployed people, TVET may be a game changer when it comes to providing the learners with the necessary skills for self-employment (Ngugi, 2019). According to Ajithkumar (2017), such a scenario can also help address the problem of declining opportunities in the formal employment sector while at the same time enabling economies in the region to avoid overdependence on salaried jobs. Apart from the importance of TVET in improving and offering of requisite knowledge and expertise to countless youth hoping to join the uncertain job market, there is empirical evidence that TVET education has not been fully embraced as a priority in a

number of developing countries (Gachunga et al., 2020a). Gachunga et al. (2020b) aver that lack of more attractive programs is one of the major contributors to this scenario. Hence, this calls for constant education policy and curriculum review in order to keep up with the ever evolving human resource needs in the job market.

A recent survey undertaken to assess the role of TVETs in more than 15 countries in Africa established that some of the common areas targeted in this education model included the agriculture, public health, and water resource as well as the energy sectors. Others included management of the environment, ICT, and good public sector governance, among others (Ngugi, 2019; Ogwengo & Osano, 2017). Following existing gaps in skills development in these sectors, the study recommended development of competency-based curriculum to enable students in strategic fields to take TVET programs as core or compulsory subjects. Equally rated as very critical for development were handicrafts, computer literacy, and entrepreneurship courses. However, lack of common learning policies for and curriculum for TVET programs across different neighboring countries made it difficult for implementing a harmonized long terms career for students pursuing TVET courses (Gachunga et al., 2020a).

Other challenges facing TVET education in most Sub-Saharan African countries include the system's inability to progressively address the emerging gaps in the employment subsector due to what has been viewed as rigid training curriculum. TVET education and training has been viewed as not promoting governments' economic priorities; being less valued by most people than university education; and limited resources for installing, repairing and maintaining learning equipment (Yewah, 2015). There is also lack of seamless systems allowing credit transfer for students across education streams for upward academic development, as well as limited

opportunities for financing students from less fortunate economic backgrounds. Inadequate relevant skills by TVET graduates in the job market has also been seen as a hindrance for other key stakeholders in the career development and employment sectors to readily integrate into the TVET education and training model (Norton, 2019). This scenario also tends to create another challenge of lack of motivation for more students to invest in TVET education. Insufficient number of well-trained and adequately skilled TVET teachers in most countries in the Sub-Saharan region is also considered another serious setback to the TVET industry. All the aforementioned challenges may be compounded by lack of clear roadmap for constant strategy review to identify and seal any emerging training gaps in order to match the students' skill sets with current job market demands (Abdul-Aziz et al., 2020).

1.1.3 Kenyan Perspective on TVET and Graduate Employability

In Kenya, there are technical quality assessment and evaluation institutions that provide a roadmap through the strategic plans on how the TVET institutions should develop curriculums for students in terms of skills sets required in the current job environment TVET Curriculum Development, Assessment and Certification Council (Technical and Vocational Education and Training[TVET] & Curriculum Development, Assessment and Certification Council [CDACC], 2021). All new entrants into the job market are required to obtain knowledge and skills that are aligned to their personal career pathways. As also indicated in the Technical and Vocational Education and Training Authority (TVETA) guidelines, the mandate of TVET CDACC is to ensure that there are regular updates of the courses being offered by technical training institutions in the country (TVETA, 2018). As noted in the 2018-2022 strategic plan for TVETA,

Kenya is supposed to produce the best human resource skills into the job market if the country has progress as it ought to.

In order for the TVETs in Kenya to have the capacity to offer the intended training in an effective manner, then there must be designing of relevant and regular review of programs as dictated by emerging job market. However, there are indications that the TVET sector may be lacking the general capacity to satisfy the ever evolving needs of TVET graduates in terms of what the employers actually require. According to Mbolonzi (2021), there are still untapped huge potentials among young entrants into the job market when it comes to equipping them with the right skill sets to be able to pursue their desired career paths. This in turn leads to the general talent creation in the society where there is optimization of human resource capabilities for (Sankale, 2019). Recently, the TVET sector in Kenya has seen tremendous growth and expansion, with TVET institutions having increased from less than 800 in 2013 following the introduction of the TVET Act to over 2300 of them by Statista (2022). From these statistics, it is evident that this sector requires careful planning and injection of enough resources to increasingly improve its capacity (Wanjohi et al., 2019).

From 148,009 in 2013, by 2020 the number of students in TVET institutions in Kenya had increased almost threefold to stand at 452,277 in 2020 and about 580,849 in 2022, with every indication that the trend will keep on increasing (Kamer, 2022). Japheth and Dimo (2019) further postulate that the general perception of TVET programs as inferior to other higher education courses and lack of proper structures for in-service Continuing Professional Development (CPD) of TVET trainers and rigid TVET training pathways continue to be serious hindrances to inter-institutional transfers of students and Recognition of Prior Learning (RPL) skills by employers

for a more vibrant and versatile TVET sector. To address these challenges, studies have recommended continuous strategy review based on current situation, institutional objectives, current institutional curriculum, and departmental plans, among other organizational strategic management parameters (International Labour Organization [ILO], 2017).

1.2 Statement of the Problem

Employability of graduates from TVET institutions continues to pose serious concern in Kenya, especially against the enormous growth in the TVET learning and training sector in Kenya which has been on an upward trajectory since its inception in 2013. Statistics indicate the sector has witnessed tremendous institutional growth, from 753 TVET colleges with a student population of close to 148,009 in 2013 to the current 2,300 TVET institutions with a population of over 580,849 students enrolled in different colleges across the country (Kamer, 2022; Statista, 2022). Yet, there is no reliable data on employability of TVET graduates despite the continued expansion of the subsector. Earlier research by Nason (2019) on youth unemployment among graduates of tertiary institutions showed that despite TVET graduates' employability comparing better than other institutions of higher learning, more than 12% of TVET diploma graduates lacked employment opportunities. A study by Mbolonzi (2021) noted that many TVET institutions in Kenya have embraced technology to improve their training outcomes to subsequently enhance employability of the graduates. However, the study did not explicitly focus on how situational analysis or institutional objectives impact graduate employability in the TVET sector in a Kenyan context. This therefore led to methodological and conceptual gaps that the current research sought to address.

A survey by TVET and Curriculum Development, Assessment and Certification Council

(CDACC, 2021) on the impact of reforms in the TVET sector on employability of TVET graduates revealed that a revitalized CBET has been very instrumental in identifying training gaps for more competent TVET graduates. However, this was a general survey which did not specifically address graduate employability in the context of strategies of curriculum implementation or operational departmental plans in TVET institutions. Kahihu et al. (2021) carried out research on how to improve employability of TVET graduates using CBET as opposed to basic employability skills training (BEST) models and established that a number of TVET institutions may be lacking the capacity to regularly conduct strategy reviews in order to align their curricula with Kenya's Vision 2030 development blueprint. Yet, this study did not factor in regulatory frameworks of TVET institutions when it comes to improving of graduate employability in Kenya through the right training and skills. The current research thus examined how strategy review implementation impact the level of employability of TVET graduates once they joined the labour market in Kenya, with emphasis on effective situational analysis, institutional objectives, institutional curriculum, and departmental plans.

1.3 Objectives of the Study

1.3.1 General Objective

Primarily, the research focused on the influence of strategy review implementation in TVET institutions on employability of graduates in Kenya.

1.3.2 Specific Objectives

Specific objectives of the study included:

- i. To assess the influence of situational analysis in TVET institutions on graduate employability in Kenya.

- ii. To establish the influence of institutional objectives in TVET institutions on graduate employability in Kenya.
- iii. To assess the influence of curriculum implementation strategies in TVET institutions on graduate employability in Kenya.
- iv. To establish the influence of operational departmental plans of TVET institutions on graduate employability in Kenya.
- v. To establish the moderating effect of government regulations of TVET institutions on the relationship between strategy review and graduate employability in Kenya.

1.4 Hypotheses

- H₀₁** There is no significant influence of situational analysis in TVET institutions on graduate employability in Kenya.
- H₀₂** There is no significant influence of institutional objectives in TVET institutions on graduate employability in Kenya.
- H₀₃** There is no significant influence of curriculum implementation strategies in TVET institutions on graduate employability in Kenya.
- H₀₄** There is no significant influence of operational departmental plans of TVET institutions on graduate employability in Kenya.
- H₀₅** There is no moderating effect of government regulations of TVET institutions on the relationship between strategy review and graduate employability in Kenya.

1.5 Justification of the Study

There is no doubt TVET education and training plays a very important role in providing practical skills to the learners for a more skilled workforce in the employment environment. However,

there are indications that more need to be done to properly and progressively align skills of TVET graduates with new job demands as this will enhance their chances of being employed once they complete their tertiary education. This study was timely in helping to interrogate the link between strategy review and the possibility of improving chances of the TVET graduates being employed in different sectors of the economy based on their respective skill sets. Nairobi metropolitan became the ideal study site in order to provide a wider population from the 4 counties for picking the sample for comparison purposes.

Bridging knowledge gap will eventually enable all key stakeholders in the labour market and technical institutions to collectively work towards a more progressive and sustainable education and training model capable of supplying employers with the right skills for skills-oriented jobs. This study also came at a time when a number of employers may be lacking new people joining the job market with the right set of skills required for their organizations. Also, given the inadequate availability of well trained workforce in technical areas in Kenya and other countries today, this study will be important in providing recommendations pertaining to enhancing curriculum training and other related input into the TVET education in order for Kenya to produce a more competitive prospective workforce for the external job market as more Kenyans seek employment opportunities in foreign countries.

1.6 Limitations of the Study

The study was faced with certain limitations that negatively affected its timely completion. During fieldwork, accessing respondents from different cadres of management of TVET institutions was sometimes challenging to the researcher. The challenge was addressed through temporary engagement of competent field interviewers who were properly trained to help the researcher in data collection. Another limitation was related to a wide geographical coverage

during fieldwork where the TVET institutions spread across different Nairobi metropolitan counties. Visiting of the respondents in their various areas of work in order to administer or deliver a blank questionnaire for self-administering posed significant challenges to the research team due to the sparsely spreading of targeted TVET institutions to be involved in the study. This challenge was addressed through proper and careful planning of fieldwork activities before embarking on data collection.

Depending on the availability of the respondents and other fieldwork dynamics, advance bookings were often done with the prospective respondents in order to save time and make the whole process of data collection easier. The researcher also explored the possibility of applying innovative approaches for data collection, such as directly administering the questionnaire while talking to the research participants and/or dropping so that they could be self-administered and then completed copies were collected thereafter for data processing and analysis.

1.7 Delimitation of the Study

This study was restricted to four independent variables besides a moderating variable that were examined to determine how the predictors influenced the research outcome. The scope of the research was therefore delimited to assessing the influence of situational analysis, institutional objectives, institutional curriculum, and departmental plans on TVET graduate employability in Kenya. The moderating variable entailed government regulations that may determine how strategy review influenced TVET graduate employability in Kenya. Related to geographical delimitation, Nairobi metropolitan counties formed the focus of the research where respondents were drawn from various institutional departments from 353 selected TVET colleges in these counties.

1.8 Significance of the Study

Outcomes of the research could be very critical for the top leadership of TVET establishments, relevant government ministries, policy makers, as well as academicians or researchers. The TVET management can use the study recommendations to benchmark on the best practices when running their respective institutions. The government can also benefit from the study by using the outcome of the research to better understand how to implement strategy review by integrating different key stakeholders in ensuring that TVET graduates get to be offered relevant skillsets in line with the emerging job demands in the employment environment. Regarding policy makers, the findings may help them to understand how to come up with more effective learning and training curriculum for the long term good of the TVET graduates in the employment industry and sustainable role of their skills for the country's general benefit. Researchers and academicians can use the study findings as reference materials during prospective research on strategy review of the TVET sector and the role this plays in graduate employability.

1.9 Assumptions of the Study

This empirical inquiry was conducted under various suppositions regarding acceptability of the study among the research participants by being readily receptive about the research ideas and be willing to freely participate. Also, the researcher made the assumption that the research participants were going to give credible information which was going to help to adequately answer the research questions. Another assumption was related to timely completion of the research where the researcher made the assumption that all the conditions of the study were going to be sufficiently met within the time schedule. Testing of these assumptions was imperative in ensuring that the researcher did not draw false conclusions from data analysis. This step was also important in developing a solid scholarly dissertation.

1.10 Operational Definition of Terms

Curriculum strategy is a process that involves identifying and streamlining goals and objectives with the aim of developing an institutional prospectus to address teaching and learning gaps (Doyle, 2020).

Employability Refers to an individual's quality of being engaged in paid work based on specialized skills, knowledge and competencies (Oeben & Klumpp, 2021).

Government regulations of TVET institutions refer to rules and guidelines provided by the government to guide on the general functioning of TVET entities in Kenya (Mbolonzi, 2021).

Institutional objectives are definite aims and goals of an institution meant to guide on how to achieve its core mandate, such as equipping students with intended skills and knowledge (Mbolonzi, 2021).

Operational departmental plan refers to a comprehensive and actionable plan meant to guide on how a department functions and executes its activities in order to contribute to the overall achievement of an institution's business objectives (Niittylahti et al., 2023).

Situational analysis Refers to a process through which to identify organizational internal and external opportunities and challenges for the purposes of making improvement (Huisman, 2018).

Strategy review	Refers to a process through which organizations revisit progress of achievement of their goals and objectives with the aim of improving their future outcomes (Sankale, 2019).
TVET institution	Refers to an institution for equipping students with critical and requisite skills in different important sectors of the economy (Huisman, 2018).
TVET	Refers to the form learning structures and systems which enable students to acquire specialized training and expertise in different sectors in the job market (Malle, 2016).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The section addressed theoretical framework and analysis of different past empirical studies as well as conceptual framework. Under theoretical framework, the study used strategic theory and resource-based view theory. In empirical review, a number of past literatures were critically analyzed to bring out existing gaps that the current study sought to bridge. The chapter also presented conceptual framework which provides a pictorial link of predictor to the outcome of the study.

2.1 Theoretical Framework

The theories used in the study included human capital theory, strategic theory and resource-based view theory. Each of these theories helped to expound on different aspects of the research and were applied on the basis of their relevant tenets, especially in answering specific objectives of the study.

2.1.1 Human Capital Theory

This model got to be initiated by Gary Becker and Theodore Schultz in 1964 to underscore how individuals' professional capabilities are positively impacted by good educational training, especially in terms of enhancing productivity and efficiency (Becker, 1992). According to human capital theory, education and training should be viewed as a foundation for people to increase

their worth in terms of employability and their prospect of earning higher income in their paid work. As a study of human resources, human capital theory further emphasizes on improving our economic value through relevant education and training. Just like people invest in their businesses through such input as better machinery and new technology so as to improve their profits, so we should invest in human capital through better education and training (Becker, 1993).

Human capital theory further argues that investing in human capital inspires growth in people, which can then be measured through an employer's staffs' abilities, work values, and skillsets. Eventually, all these lead to increased productivity, profits and a good business brand-name. Improved human qualities through education and training can increase individual talent and organizational financial output (Becker, 2009). Overall, human capital theory classifies human capital elements in terms of what individuals or groups are able to acquire in their quest for knowledge and skills (Gillies, 2011).

Related to its relevance in this study, human capital theory attempts to establish a relationship between training and acquisition of the right skills and knowledge and improved work outputs by both individuals and organizations. The current study examined the influence of strategy review implementation among different institutions in the TVET sector in Kenya. The emphasis was on the kind of skills acquired through the right strategy of various TVET providers and how these skills enhance the level of employability of those who have obtained the skills. In this sense, human capital theory speaks directly to the primary objective of the study which was basically about knowledge acquisition of TVET graduates and how this knowledge prepares them for employment after clearing of college education.

2.1.2 Strategic Theory

The strategic theory is a product of Tom Burns and G. M. Stalker which was established in 1961 to help in understanding of strategic implementation of different programmes in public and private organizations (Burns & Stalker, 1961). This theoretical framework insinuates that there are different ideologies which are very critical in determining success or failure of institutions. Strategic theory further emphasizes the need to create a harmonious interlinkage between different departmental units in an organization in order to enhance organizational outputs. Evidently, the theory envisages a situation where strategic factors are applicable across different firms regardless the area of specialization. This realization pushes institutions to aggressively push for their objectives dependent on unique circumstances surrounding each of such organizations. In order to effectively remain informed about where they want to focus their attention, different organizations are encouraged to progressively review their operational frameworks so that they can constantly align with the overall changes in their respective industries. In relation with this study which is about constant updating of skills to match the emerging needs in the industry, strategic theory is very relevant as it provides insights on how and why the reviews should be done or encouraged.

On the basis of this theoretical guideline, Cole-Ingait (2019) observed that strategic features are very critical in contributing to the success of every institution. Notably, these factors must always be reviewed depending on emerging issues. The constant review must be done in a strategic way where the bigger picture of organizational development is always under consideration. According to the principles of strategy review of TVET establishments, adoption

of new ideals cannot completely replace older infrastructural foundations. Rather, they should be geared towards innovations, with the intention to align with emerging challenges. Investment of more resources is also necessary when addressing noticeable loopholes in the TVET management. It is on this basis that the current research examined different variables related to strategy review, including situational analysis, institutional objectives, institutional curriculum, and departmental plans. Each of these variables was viewed as influencing strategy review of TVET institutions in varied ways. Based on the strategic theory, review of TVET programs would require a well-thought-out plan and adequate resources for achieving the best. Overall, in accordance with the research variables of situational analysis, institutional objectives, institutional curriculum, and departmental plans, strategic theory provides the foundation for further analysis of these variables to determine how and the extent to which they impact employability of TVET graduates through acquisition of the right skills. Hence, the theory was relevant in explaining how strategy implementation in the TVET sector influences the likelihood that graduates of these colleges in Kenya can get employment requiring their skills immediately after completing their education.

2.1.3 Resource-Based View Theory

This theoretical model got to be founded by Birger Wernerfelt in 1984 to help in expounding the relationship between strategy review and an organization's growth and development (Wernerfelt, 1984). The theory begins from the basic argument that an institution's successful presentation is significantly dependent on the resources within the disposal of the organization. The manner in which the resources are utilized within the framework of organizational objectives will determine the extent to which the organization can perform and gain competitive advantage over its peer corporate entities (Lockett et al., 2008). Wernerfelt (1984) further affirms that the development

strategy of a successful organization entails creating a sustainable link between utilizing what is available and producing additional resources for future use.

The theory further posits that availability of resources is the basic principle upon which formulation and review of strategy for various organizations should be viewed (Barney, 1991). Specifically, current resources will help managers to decide which of the organization's areas to diversify, the amount of resources to put in and the processes to follow in order to achieve that specific objective. Related with strategy review of TVET institutions for general improvement on TVET graduates' employability, the kinds and magnitude of the review at any given time will highly depend on finances, equipment, and human resource expertise to execute any meaningful changes (Lockett et al., 2008).

Suitable superior technology, financial resources, board management, and statutory or regulatory measures are some of the specific strategic resources necessary for a strategy review. On the contrary, inadequate skilled employees, poor vertical and horizontal communication, retrogressive government regulations, and generally strict organizational bureaucracies tend to make it unnecessarily difficult to access strategic information that could allow easy strategy review for the overall improved performance of the organization; a situation which could easily hinder organizational performance and give opponents a competitive edge (Barney et al., 2001).

TVET education and training model is skills-oriented, thereby calling for constant evaluation of the employment market to understand the most relevant and current skill sets needed at any moment for enhancing chances of securing jobs after completing college education. Such jobs must require the skills that the graduates were trained on. Based on the tenets of resource-based view theory, proper learning in the TVET sector would require sufficient resources for effective

implementation. Furthermore, effective monitoring and review of operations of TVET institutions cannot materialize without sufficient resources to invest in this exercise (Clark & Wright, 2007). Hence, resource based view theory becomes very relevant in helping to explore the primary objective of the study, including specific objectives of the study. This means that strategy review implementation in TVET institutions may not be practical without having sufficient resources both in terms human skills and institutional capabilities backed by all the necessary infrastructures. For instance, there must be constant situational analysis as well as relevant curriculum implementation strategies.

2.2 Empirical Review

The objective of this research was to examine how strategy review impacts TVET graduate employability, with specific focus on situational analysis, institutional objectives, institutional curriculum, departmental plans, and government regulations on strategy review in TVET institutions.

2.2.1 Situational Analysis and TVET Graduate Employability

One of the critical aspects of a credible TVET institution would include a robust curriculum for effective teaching and equipping students with the right knowledge and skills (Hordósy et al., 2018). Curriculum development and/or review can therefore be viewed as a progressive undertaking where the institutional management is expected to conduct the review based on needs assessment. Within the context of strategy review of TVET colleges, situational analysis is a process through which organizations identify internal and external factors that can impact their operations either negatively or positively. Careful assessing of strengths and challenges can

enable the organization's stakeholders to understand the level of potential opportunities and threats and work towards improving general performance of the organization from time to time (Mui et al., 2018). Situational analysis should be pegged on institutional performance targets intended for improving students' needs through improved teaching contents and means of delivery of the materials by the teachers. However, there may be constraints that can impede timely and routine situational analysis in an institution as an important aspect of overall good management practices (Knox & Stone, 2019).

According to Dagnino et al. (2017), situational analysis and needs assessment are critical considerations at the initial phases of curriculum development or review since this gives a clear picture to the reviewers and the top management of the organization about how things look like and how they can be changed. Hence, situational analysis has otherwise been described as a diagnosis of organizational needs (Mui et al., 2018) which facilitates examining of prevailing factors in an environment where the curriculum is going to be implemented. Related to strategy review among TVET operations against the long term need of improved employability of TVET graduates, situation analysis would ideally imply trying to survey the employment environment at any given time to understand the existing gaps that can effectively be addressed through proper training of students in the TVET learning establishments. Yet, situational analysis of TVET institutes may not be tenable for respective institutions without involvement of other investors, as well as the government which provides funding and regulatory frameworks on how TVET should be managed (Nugraha et al., 2020).

Research was done by UNESCO (2021) on the situational analysis of TVET in ten Southern African Development Community (SADC) member states, and noted that majority of the

countries did not have the capacity to initiate research activities for effective curriculum evaluation and development. The study adopted a cross-sectional research design where respondents were involved from various regions in order to provide wider perspectives on the subject of study. The SADC's capacity was restrained due to poor teachers' training and lack of money as well as inadequate infrastructure for initiating and sustaining research. Although some of the countries involved in the study, such as Malawi, Zimbabwe, South Africa, Zambia, and Mauritius had ingrained the aspect of research in their TVET policy frameworks, they were still unable to initiate regular and comprehensive strategy reviews for a more robust teaching and training of TVET graduates with higher employability chances in the job market (Anwar & Hasnu, 2013). To address the limited research gaps, the affected countries had resorted to collaborative research efforts with universities and other institutions of higher learning. However, limited research capacity for the TVET institutions may be a cross cutting challenge in many countries and regions.

Situational analysis often helps employers to locate employability characteristics in prospective employees, such as teamwork, working under pressure, and meeting deadlines for work assignments under minimal or no supervision. An individual with employability skills is also expected to be innovative and use self-initiatives to solve work-related problems, while at the same time being ready to learn from their mistakes and adapt to new best practices (Niittylahti et al., 2023). The ability to effectively work with and learn from other individuals from diverse professional, cultural, social, and political backgrounds also serve as the hallmark of individual's employability as this enhances their chances of easily accomplishing organizational goals and tasks assigned to them from time to time (Muthuprasad et al., 2021).

Oeben and Klumpp (2021) affirm that the ability to work with numbers, use data or evidence-based information in solving company problems cannot be ignored in modern business or corporate management practices and processes. As a result, there is the need for numeracy skills for TVET graduates employability. Yet, institutions for offering technical courses and training cannot fully and effectively offer the right skills-sets for students unless they are well and fully equipped under the right management and training frameworks. Despite the limitations by the SADC countries where the study by United Nations Educational, Scientific and Cultural Organizations (UNESCO, 2021a) was undertaken, there were also other initiatives being undertaken by key stakeholders in strategy review to improve TVET outcomes and enhance the capacity of TVET graduates in the SADC region for their increased chances in employment arena both within and outside their respective countries (Chan & Fong, 2018). Such initiatives included creating more effective monitoring and evaluation (M&E) frameworks for allowing transfer of better skills to the TVET learners.

According to Kanwar et al. (2019), although several states around the globe are aware why TVET courses should be tailored to meet the emerging needs of the ever-changing labour market, TVET systems of several countries are predominantly supply driven, especially in sub-Saharan (SSA) countries which often experience scarce resources and inferior technology. A major weakness in majority of the SADC countries however involves lack of clear targeted guidelines for training new entrants into the employment market. Similarly, Haßler et al. (2020) and UNESCO (2021b) noted that weak feedback mechanisms between the labour market and the TVET institutions were a common phenomenon. The same challenge was being witnessed regarding TVET monitoring and evaluation systems which may not be robust enough to provide

effective and meaningful feedback for refining delivery of the TVET training and education model.

Despite clear guidelines for most of the TVET providers in the SSA region to review their curricula after every 4 to 5 years, Kathure and Mbijjiwe (2014) established that scarce or lack of financial resources prevented a good number of TVET providers in Africa from reviewing curriculum frameworks for a long time. Given that the employment sector is ever-evolving where the skills requirements are changing every so often, irregular curriculum review by majority of the TVET learning institutions means that TVET graduates may not always meet the demands of current technical jobs because the training providers lack the capacity to give them the right skill sets. While such scenario was commonly associated with TVET providers in sub-Saharan Africa, Hanni (2019) revealed that the situation may not be very different in Latin America and the Caribbean where there is generally a disconnect between skills provided to the TVET graduates in reference to the changing job creation patterns in the job market in various economic sectors which require unique skills.

According to Apunda et al. (2017), situational analysis related to TVET strategy review presupposes knowledge about the environment in which the curriculum is being implemented and the dynamics of the job demand in the employment market. Adnan et al. (2012) further argue that situational analysis must incorporate as many stakeholders as possible, as opposed to institutional top management alone. Since TVET educational and training model involves several partners in its implementation, which include the government as the regulator and the private sector as employers, it is envisioned that there should be adequate involvement of both players to propose and initiate reviews from time to time as the job market keeps on evolving. Other

important players in the TVET implementation include students, teachers, parents, religious organizations, and the civil society, to mention but a few. However, there are different dynamics, such as government regulations and availability of financial resources, which equally play a central part related to strategy review associated with TVET sector (Apunda et al., 2017).

Kithae et al. (2017) observed that TVET policies should as much as possible be aligned to the current job demands, while at the same time allowing involvement of the private sector through various platforms and partnerships for effective response of the reviews to the changing labour market. A survey by the KISE noted that very few institutions offer specialized support to students with special needs (Kenya Institute of Special Education [KISE], 2019). Some of the mostly affected category of students included the visually impaired who did not receive guidance and counseling services from their colleges. The study recommended enhanced public-private partnerships where the government provides the right policy direction on governance of TVET, curriculum reviews, internship, TVET financing and resource mobilization, as well as quality evaluation through established and reliable structures and systems.

In a survey carried out by Kintu et al. (2019) regarding the interconnection of training by TVET institutes and employability of new entrants into the job market in Uganda, the findings revealed that involvement of employers in the review of employability skills of TVET graduates was critical in providing an objective analysis of the situation. The study used a government's benchmarking tool for achieving necessary skills to examine the level of conformity to these standards by TVET institutions in Uganda. The study involved 50 research participants from different institutions that were interviewed through a structured questionnaire to collect statistical and in-depth data where it was noted that at least 60% of the respondents concurred that they had

basic ICT and interpersonal skills needed for the work they trained for. Despite basic level of skilled abilities, majority of the respondents lacked people management skills and analytical abilities, implying that something was missing on the social part of grooming for the job market.

The views by Kintu et al. (2019) are a reflection of the findings by Khan (2019) on the good governance of TVET education and training in Bangladesh which established that there were weaknesses in the policy managing TVET institutions in the country, with employers raising pertinent concerns related to public-private partnerships which would enhance performance in the sector. According to Khan (2019), the sector wide approach should be applied in the TVET training sector where several different partners are involved in designing, reviewing and implementation of the most relevant skills for the labour market. However, like many other countries especially in SSA, Bangladesh lacked the capacity to regularly institute TVET curriculum review in order to constantly align the skills being offered to the TVET graduates with the demands of the employment environment (Lythe, 2018).

Comprehensive situation analysis on TVET must be guided by strategic policy direction where there are clear development plans for the sector, but which may be lacking in a number of countries (Obwoye & Kwamboka, 2016). A holistic approach to situational analysis in the TVET education and training sector will help address some of the common challenges identified in the TVET graduates, including negative reasoning, low-self-esteem, issues on integrity, and sociability, among others (Kintu et al., 2019). The sentiments by Kintu et al. (2019) were echoed by Ismail et al. (2021) by observing that situational analysis must involve careful evaluation and understanding of the specific factors influencing a given situation. In this sense, strategic reviewers have the responsibility to contribute meaningful knowledge by carefully examining

every variable with the potential to create certain impact on the situation at hand. Regarding the whole question of TVET development, strategy review and implementation, key stakeholders have the obligation to critically examine every factor through integrated processes to ensure effective teaching curriculum for long term benefit of the TVET graduates and their employers as well as for the continuity of the TVET sector.

2.2.2 Institutional Objectives and TVET Graduate Employability

Learning institutions are driven partly by the need to produce to the job market responsible and responsive citizens with the desire to create meaningful change in areas of operation (Picatoste et al., 2018). This is no exception to the TVET establishments which are strongly associated with imparting of hands-on skills and knowledge to students that pass through the system. A TVET graduate is ideally expected to be equipped with innovation and leadership skills, with a clear focus on professional excellence based on holistic nurturing and development at personal and career levels (Anwar & Hasnu, 2013). Overall, TVET training model has the mandate to effectively give learners with the right training within the framework of an environment defined by fast evolving employers' requirements from prospective employees (Suleman, 2018). Yet, every TVET institution could be guided by its unique operational needs which determine priorities.

In order for the TVET to work in tandem with any country's economic plans, there must be a TVET strategy which outlines a comprehensive policy formulation and operationalization for the greater good of the country (Hippach-Schneider & Huismann, 2019). Huismann (2018) argues that such a framework should be able to address any emerging challenges of vocational training such that there is constant alignment and realignment of training curriculum, policies and

programs to the broader national development, human resource training, poverty reduction/eradication, and wealth creation agenda. According to Hoftijzer et al. (2020), any strategy review on TVET management must put into consideration employability of the graduates being churned out of the TVET institutions.

Besides good technical knowledge and transferable skills in a specialized career field, an individual with employability skills is expected to possess a set of skills that can convince their prospective employer beyond reasonable doubt that they can deliver on the job in question if given the opportunity. There are numerous employability skills, but according to Doyle (2020), these can be summarized as communication, teamwork, critical thinking, ethics, computer skills, and soft skills, among other specific ones. Ideally therefore, a TVET graduate is expected to have good employability skills.

Mumbe (2020) carried out a study on employability skills among TVET students in Kilifi County and revealed that there were several dynamics related to the students' attainment of the right skills from TVET. Involving a target population of 2,564 comprising of principals, instructors, 2nd year trainees and graduates, through purposive and stratified random sampling technique, 300 individuals participated in the survey research. Key outcomes of the research revealed that the situation led to disinterest in the training and subsequently caused low enrollment. Despite the efforts by the TVET institutions to prioritize training of students based on the current job market demands, they lacked sufficient training resources and facilities.

The findings by Mumbe (2020) concurred with an earlier study by Anindo (2016) carried out by TVET students. According to Anindo (2016), despite the TVET teachers having the prerequisite academic credentials to teach in various TVET subjects, they lacked professional development

programs to elevate their skills based on the evolving job market demands to be able to transfer the same to their students. The institutions also lacked enough modern training equipment for training the students on relevant skills for their prospective employability. In the absence of properly equipped workshops, teachers mainly had the option of the classrooms to rely on for delivering lectures to students, and this significantly limited the kinds of content the students were imparted with. Given the large size of classes against limited teaching and training facilities, the findings finally showed that students in most of the TVET institutions in Nairobi lacked the best chances of remaining competitive in the job market. This called for serious strategy review in order to address the challenges in TVET for effective long term training outcomes. The ultimate aim of reviewing the strategy was to evaluate the progress towards attainment of the best for the learners based on the SGD 4 which is about quality and inclusive education for all which can guarantee some reasonable level of employment opportunity upon completion of school. However, the youth agenda has not been clearly streamlined regarding elaborate sustainable employability skills. For instance, despite existing government policies on TVET in Kenya, some of the institutions' efforts may be inhibited by respective institutional objectives and institutional curriculum, among other issues (Kisilu, 2016).

The challenges pointed out by Mumbe (2020) and Anindo (2016) regarding TVET institutions in two different counties in Kenya within a difference of four years when the initial study was carried out speak to the issues government itself could be aware of. According to the TVETA's Strategic Plan (2018-2022), TVET institutions in Kenya are faced with limited financial resources which negatively affected implementation of their planned programs (Technical and Vocational Education and Training Authority [TVETA], 2018). The government also acknowledged inadequate training equipment and facilities as well as insufficient number of

teachers which hampered quality service delivery. High staff turnover due to low remuneration also made it difficult for majority of the TVET colleges to properly execute their mandates. Furthermore, several TVET institutes were struggling with limited physical infrastructure, such as classrooms and space for workshops for accommodating the increasing student population in new TVET programs (Anwar & Hasnu, 2013). In order for some of the institutions to bridge the gap of low number of teachers, the management was forced to hire part-time teachers or merge classes in order to try to complete the syllabuses on time. However, there was not guarantee of quality teaching by the part-time tutors as there was no clearly established structured for doing background checks on their skills sets before they were hired. These sentiments were echoed by Norton (2018) where it was revealed that several private and public TVET entities in most developing countries lacked the right training capacity and equipped systems for producing the right skilled graduates to the job market.

According to Norton (2018), many prospective employers were dissatisfied with the level of preparedness of prospective entry-level staff, with a good number of them lacking clear understanding of their career direction. Nugraha et al. (2020) further noted that some of the TVET graduates entering employment space for the first time exhibited low self-confidence and work motivated as well as insufficient basic skills for the jobs they were applying for. Lack of drive and enthusiasm for the work among the TVET graduates was also a mark of lacking in many aspects, including the feeling that they did not have the right skills sets to face the tasks they were to embark on. According to Buunaaisie et al. (2018), inadequate preparation for the jobs among TVET graduates was not only limited to their local employment environment, but often extended to the international market. Marked by underdeveloped leadership potentials,

some of the TVET graduates demonstrated unrealistic salary and benefits expectations, clearly indicating that they were not prepared to begin small and grow on the job.

Mathur et al. (2022) concurred with the previous study by Chandrasekar and Murugesan (2019) by emphasizing the growing importance of TVET in achieving Sustainable Development Goal 4, which underscores creation of the right environment for the learners to be sufficiently equipped with employability skills courtesy of the TVET learning model. Despite the significant strides that have been made in providing various sets of skills in India's employment sector through TVET education model, there were several limitations. The supply-demand gap for employees with practical skills is evident. This is largely occasioned by the so many people that join the labour market on an annual basis, amounting to about 13 million while the TVET institutes can only afford to train about 2.5 students every year (Wahba, 2021). Against this background, a periodic labour force survey of 2021 showed that only 2.7% of India's working population has passed through TVET education and training model (UNESCO, 2021).

Given that amendments and transformations on TVET curricula never occur at the same rate with the fast changing employment skills in the market, some of the skills are often quickly rendered irrelevant or unproductive (Wadia & Dabir, 2020). Improper or inadequate training and lack of specific minimum qualifications for TVET trainers tend to hamper effective delivery of instructional information. Notwithstanding reviews of TVET curricula in line with the changing demands of the employment markets, lack of properly qualified teachers can portend poorly trained TVET graduates for the jobs environment. There was also the question of poor remuneration and lack of incentives for the workforce in TVET institutions to attract new

entrants to address the perennial human resources shortage, which is a cross-cutting issue in many other countries globally (Organization for Economic Cooperation and Development [OECD], 2021). According to the World Bank, despite the need to actively engage different players in the debate on the role of the TVET sector in skills development through improved technology in order to easily identify any emerging training and relevant skills gaps, a lot of ground is yet to be covered (World Bank, 2021).

The study by Nugraha et al. (2020) acknowledged the necessity of employability skills by all TVET graduates regardless of their country of origin. This view was informed by the expanding job market where employers are sourcing labour from across the globe. Based on a review of literature related to different countries operating under different work environments, the research noted that employability skills among TVET graduates must be viewed from wider social, economic and political contexts. In this sense, employability skills can be categorized as people management skills, specializations in specific career areas, interpersonal skills, ICT training, and managerial as well as creativity and innovation acumen. Additionally, students with high employability skills should be able to demonstrate critical thinking and problem solving skills.

Notwithstanding the barriers encountered by some of the TVET institutions worldwide concerning producing graduates with high employability skills, there were remedial measures which could help the management to get things right. Research by Adeyinka-Ojo (2018) encouraged governments to set frameworks to constantly assess gaps existing in employability skills in different industries in the job market in order to inform key decisions in TVET training centres. Chan and Fong (2018) further noted that TVET training establishments should prioritize content and programs of employability to address the existing gaps in different industries. In

order to address such gaps, Hammer et al. (2018) proposed developing of a broad review framework for ensuring capstone quality. TVET providers should also aspire to collaboratively work with employing organizations such that they can initiate industrial attachment chances for college finalists and allow teachers to guide the learners on how best to improve their practical and social skills before they can enter the job market.

Research by Drange et al. (2018) in Norway revealed that a number of employees in the practical skills-intensive professions reported to have passed through TVET training institutions where there were sufficient facilities and enough teachers to adequately cater for the learning needs of trainees. Despite some of the colleges having modern equipment for training, some of the institutions lacked synergy between the training pedagogy and teachers' qualifications in order to impart to the students the right sets of skills needed for their enhanced employability. Recommendations given emphasized the need for increased public-private partnerships in order for the government to set the right operational frameworks for TVET providers.

The findings by Drange et al. (2018) were however in contradiction with those by Mumbe (2020) which showed that in Kenya there were generally inadequate skilled teachers and insufficient modern equipment as well as limited physical facilities for effective implementation of the right employability skills. Mumbe (2020) and Anindo (2016) recommended enhanced partnerships between the government and donors to equip TVET institutions in Kenya with modern training facilities and encourage hiring of practical-oriented teaching modules, such as field trips, project works, simulations, and work-based orientations to achieve desired employability skills for TVET graduates. However, these earlier studies focused in different independent variables under

different study environments. The current research was important in providing updates regarding the situation related to metropolitan counties of Nairobi, Machakos, Kajiado, and Kiambu.

Notwithstanding the challenges faced by TVET institutions in Kenya in general, there are still hopes that things could improve regarding training of TVET graduates and imparting them with the right skills for ready and easy employment in the labour market. According to Ochami (2020), TVET graduates still stand better chances of being absorbed into the job market compared to university graduates. Besides employability which dominates the objectives of TVET training, a number of TVET providers are beginning to adopt the important principles of flexibility, adaptability, and lifelong skills as the hallmark of best practices and foundation for a better equipped TVET graduate. It was also indicated that a number of Kenya's TVET colleges offer practical skills oriented courses which are very relevant in the job market. This trend has enabled the graduates to master the right employability skills needed in the job industry today.

The findings by Ochami (2020) regarding TVET graduate employability in Kenya were however challenged by Aluoch (2021) by indicating that TVET trainees in Kenya are not provided with the right modern skills required in the labour market today. Deficiency in training facilities and lack of clear procedures for coordination and conducting industrial attachments for the trainees made it untenable to produce the best TVET graduates for the current job competitive job environment. There were further revelations that TVET education programs are ill-prepared for the job market. The research recommended constant updates by TVET institutions in their programs, infrastructure, and policy frameworks to enable them to provide relevant quality education and training programs. The government was also asked to progressively institute updated policy guidelines to foster collaboration between TVET institutions and the employment

industry, especially in enhancing industrial attachments which give the graduates an opportunity to acquire practical skills before they complete their training to join employment.

2.2.3 Curriculum Implementation Strategies and TVET Graduate Employability

Development and implementation of curriculum strategy review is part and parcel of successful learning and teaching in the TVET sector across several countries. Lack of clear curriculum implementation strategy, the TVET sector cannot progress with the required trajectory for meeting the employer's needs. In the UK, the 'Wolf Report' established that vocational training sector was not sufficiently serving its target population in different ways. Specifically, a bigger percentage of tutors of highly technical subjects were not very well qualified. Secondly, there were many young people fresh from high school taking courses designed for mature professionals already in employment seeking to improve their work skills. It also emerged that the UK vocational education system encouraged teaching of qualifications that attracted most funding, as opposed to those which had a direct impact on the young learners in terms of employability immediately they completed their college education. At the same time, weak students in English and Mathematics were allowed to drop the subjects, instead of being encouraged to study and complete the subjects as the most important basic subjects for employment. Most of the TVET institutions lacked enough internship opportunities for students aged 16-18 years due to the government's lack of effective public-private partnership policies and reluctance by the government to actively sensitize private sector organizations to be involved in the programme. This denied the young students placement opportunities to acquire hand-on experience during their study periods. Lastly, there was the underlying problem of negative attitude towards vocational education as being a preserve of academically less endowed students,

which has over time discouraged potential entrants to stay away from TVET enrolment (UK Government, 2011). Important to note however that such challenges may be cross-cutting to different countries (UNESCO, 2021).

In a study by Mumbe (2020) to understand the relationship between curriculum reviews of TVET institutions and imparting skills in potential employees, it was noted that such reviews must be done in a careful manner if they have to make a good impact among the learners. Provision of the right skills and knowledge to the TVET sector beneficiaries will always have a general cascading implication in the economy through enhanced skill sets. Through effective curriculum review, this enables tutors, trainees, prospective employers and other relevant stakeholders to have a clearer understanding of what each one of them is required to do in order to get the best out of the training process. Anindo (2016) established that TVET institutions should strive to set the right quality standards in order to guarantee students the kind of skills required in the job market.

Another study was conducted by Maina et al. (2017) to examine the influence of technological adaptation to curriculum development and review in the TVET sector. Mixed method approach was adopted in the research where quantitative and qualitative data was used. The findings showed that the use of technology in curriculum review process made it easier for the stakeholders to get the desired results on time. Furthermore, it was noted that the TVET sector cannot meet its objectives without proactively reviewing its programmes in line with emerging market in the work employment industry. Whereas continued curriculum review is important in as far as imparting new skills is concerned, this process must be carried out carefully in order to

give value for money. Yet, several institutions may be hampered by lack of adequate financial resources for regular curriculum review.

Since several TVET institutions are unable to conduct curriculum reviews on a regular basis because of different challenges, it is hard to guarantee employers the right skills through TVET graduates. This scenario often creates knowledge and skills gap, thus leading to high unemployment rates as a result of failure by educational institutional stakeholders to match the graduates with the right skills (Mumbe, 2020). Furthermore, it was noted that more than 50% of TVET colleges in Kenya lack the capacity to constantly update their training programs in accordance with evolving employment needs in the labour industry.

A research was undertaken by Geleto (2017) in Ethiopia to evaluate the impact of curriculum review on capacity building of learners in the TVET colleges for the sake of easily securing employment in their area of training after they completed their tertiary education. The findings showed that there were several stakeholders in the industry that lacked the capacity to undertake the reviews on regular basis whereby this negatively impacted the employment sector. Failure to constantly match existing work opportunities with the right skills created a gap that ended up hurting individuals' careers. It was also noted that the challenges faced in the TVET sector in Ethiopia were similar to those experienced in some of the developed countries, such as Australia and the Philippines. However, Ethiopia had adopted a different review approach from that of the developed countries through decentralization of the reviews where the focus is on each institution dependent on their respective unique circumstances.

Further research was conducted by Garba et al. (2020) in Nigeria to investigate how acquisition and sharing of specialist skills and knowledge in the TVET sector is enhancing of employability

of the graduates from this education sector. The research used descriptive research design and interviewed 150 respondents, among them lecturers and professional staff from different departments of the Enugu State. The findings showed that due to political and economic instability in the state, TVETs found it difficult to carry out regular curriculum reviews as the job market kept on evolving.

At the same time, according to Muhammad et al. (2019), by not decentralizing curriculum review in Nigerian TVET sector, this made it difficult for the institutions to regularly update themselves, thereby creating a gap in skills and knowledge acquisition for new jobseekers entering the market. The sentiments by Garba et al. (2020) were earlier reflected by Aloysius et al. (2018) in a research they conducted which showed that in Nigeria the government lacked the capacity to closely monitor reviews in TVETs to ensure bridging of skills gap in the labour market. Despite several TVET colleges having reviewed their curriculums and introduced several new courses over time, they lacked the capacity to keep up with the pace at which the job market was evolving especially with regard to technological skills and expertise. One of the outstanding challenges included lack of finances in the TVET sector and government's failure to allocate sufficient budget for monitoring and evaluation processes to ensure that the reviews were done accordingly.

Research conducted by Oluoch (2019) in Kenya on the influence of sustainable curriculum review on skills development for TVET graduates in the textile industry showed that the country was likely to face several challenges in imparting of skills to the young people entering into the job market. The government had the role and responsibility of putting in place effective mechanisms for enabling TVETs to carry out reviews as regularly as possible based on emerging

needs in the labour sector. Yet, this may be hampered by lack of effective systems and structures as a result of inadequate budgetary allocations. Despite these challenges, the best option for the TVET sector remained to put in place dependable structures for ensuring that the sector avoided the tendency of overstaying with old learning programmes which could prevent them from achieving the most relevant skills in good time.

2.2.4 Operational Departmental Plans and TVET Graduate Employability

Departmental plans in a training institution refer to individual expenditure plans for each department based on priority training needs (Abdullah et al., 2019) departmental plans can provide a roadmap on how an institutional department intends to rollout detailed activities in a progressive manner based on priority and availability of the resources needed to accomplish specific tasks. Like many other training institutions, TVET establishments are required to set their priorities at their smaller units of management, thereby spelling out strategies for accomplishing specific milestones within specified duration of time. However, according to Karim and Maat (2019), departmental plans must be accompanied by budgetary allocations, human resource expertise, and the element of time. Effectiveness of departmental plans will often depend on the amount and quality of its core elements allocated for achieving the intended objectives. At the same time, Ismail and Hassan (2019) postulate that departmental plans in TVET institutions must be set within certain reality checks, such as the existing resources and the timelines needed to achieve certain landmarks. For instance, implementation of effective projects or industrial attachment supervision may be dependent on the amount of teaching staff available in a department, budgetary allocation, and the ability of the head of department (HOD)

to effectively balance the roles of teaching staff between classroom and supervisory responsibilities (Nugraha et al., 2020).

According to Ngugi (2019), proper design, review and implementation of department plans help to communicate an institution's main priorities through a strategic outcome, program and expected results. Hence, institutional department plans inform faculty members and students on planned activities and expenditures on different items meant to support effective learning and enhancing the outcome of the overall training. In the study to examine challenges related to implementation of TVET trainings in Kiambu County in Kenya where 296 respondents from 37 vocational training centers were used, the study revealed a number of hurdles. Ninety two (92) research participants were randomly sampled for the study. Based on analyzed primary data gathered using a structured questionnaire and processed using a computer software, a significant link was noted between departmental practices of TVET institutes and execution of strategic plans. The study recommended fostering of planning practices and strengthening of competence of employees through effective communication systems.

According to Mackatiani and Ejore (2023), the policy on technical and vocational training education has evolved over a very long time, which is said to be traced back to the 19th century. It is said to have started as a form of education meant for Africans during that time where the indigenous communities were expected to receive vocational and industrial education due to their lack of capacity to pursue any other form of education rather than manual skills. However, it is evident that over time a lot has changed, with so many different courses being launched to cater for the ever merging new job demands. The TVET sector has not been growing with the right pace to accommodate the fast-changing employment scene.

Despite the diverse views from different scholars of what employability skills exactly entail, there is general consensus that such skills are important for people entering the job market every year. However, a number of the institutions in the TVET industry may not have the capacity, especially in sub-Saharan African countries, to offer the right skills on time to match emerging new job opportunities. Furthermore, Otache (2022) observed that through innovative approaches, TVET institutions should be able to put mechanisms in place in order to foster the right employability skills in learners. Yet, the study by Otache (2022) was carried out in a study site not similar to the one by the current research, hence the justification. The present research further focused on impact of operational departmental plans on employability of the TVET graduates in Kenya.

A study by Bogonko (2018) showed that there should be regular reviews of the current syllabus in order to match the teaching objectives and training outcomes of the students with the prevailing employment environment at any given time. Further, the study indicated that departmental heads in TVET institutions were not proactive enough in providing clear strategic plans, or motivating and carrying out regular staff appraisals to understand existing training gaps of the faculty members. The views by Bogonko (2018) were echoed in the findings of a survey by United Nations Educational, Scientific and Cultural Organizations (UNESCO, 2020) in Brunei, Malaysia, Indonesia, Philippines, and Timor which showed that several colleges in different developing countries are not being managed well at both top and low management levels. The five countries in whose TVET institutions were reviewed did not have in place clear policy guidelines on how to finance TVET establishments. Despite the practical orientation of curriculum of TVETs' teaching departments, a good number of TVET graduates lacked soft skills needed in the job environment. The survey recommended enhanced public-private

partnerships to enable a more holistic approach in equipping TVET graduates with the right skills for the job market. This included implementation of industrial attachments that expose finalist students to practical skills ahead of their joining actual employment.

According to Karim and Maat (2019), common challenges related to departmental plans in TVET institutions mainly revolved around lack of infrastructure, inferior training equipment and limited physical facilities, and low quality programs and teaching staff. As a result of these challenges, UNESCO (2020) concluded that careers related to TVET education and training was in jeopardy since most students would consider TVET as their last option for post-secondary education. These views were reiterated by Muthuprasad et al. (2021) by noting that if TVET institutions are not able to create more relevant courses through regularly revamped teaching departments, then they stand the risk of being irrelevant in the job market. There were however several challenges that curtailed many departmental heads from implementing more relevant courses. These included limited budgetary allocations, lack of goodwill from TVET managements in rolling out new programs in a progressive manner in order to match emerging priorities in the employment environment (Ismail & Hassan, 2019). Some of the serious recommendations for addressing these challenges included the government advocating for participation of different stakeholders in curriculum design, review and execution for broader training outcomes. This approach would ensure up-to date skilled and knowledgeable TVET graduates needed in the global economic development as opposed to addressing the employment needs of just limited economic environment.

2.2.5 Moderating Effect of Government Regulations on TVET Strategy Review

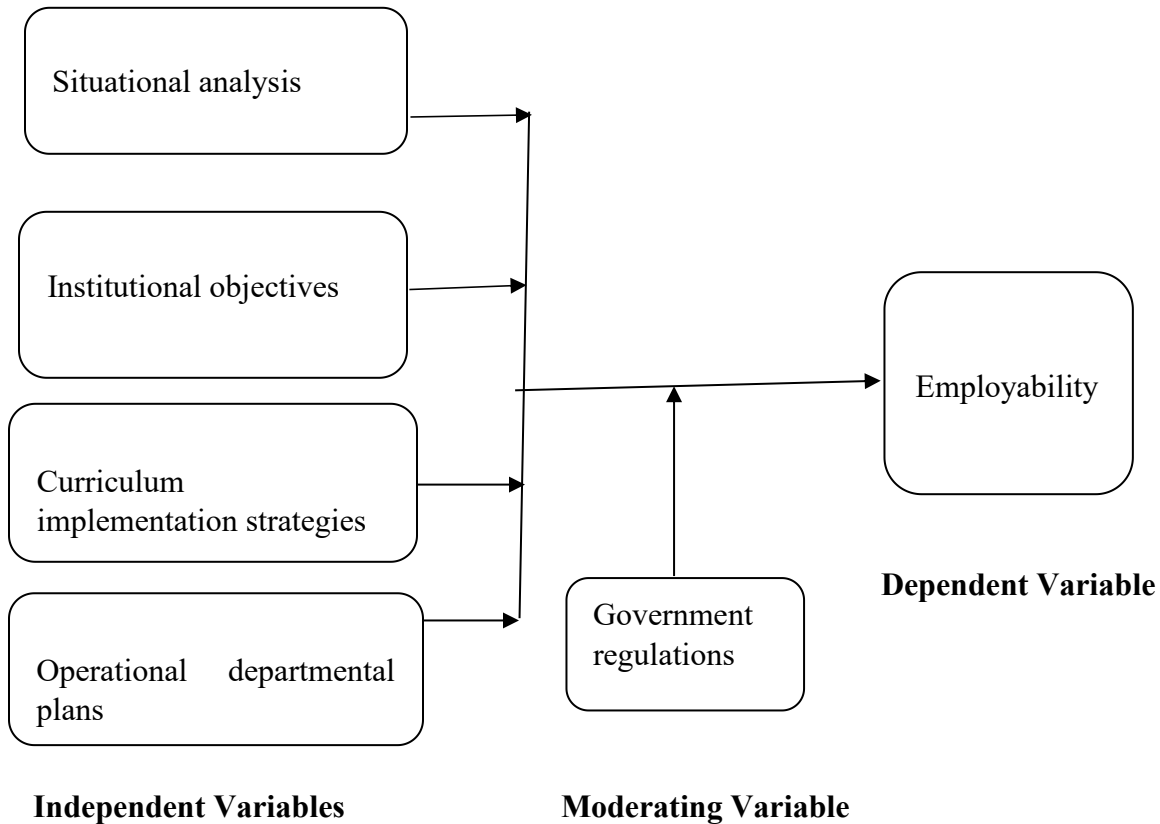
Governments across the world have the responsibility to regulate the general operations of TVET education and provide policy framework for skills development (UNESCO, 2018). Through civil servants and the political class, it is expected that simple and clear guidelines are provided to link different sectors of the economy that require different sets of skills. TVETA (2018) observes that the government acts as bridge between the sector and the stakeholders in employment. Since the skills provided in the TVET sector are basically required in virtually all fields of job creation, there should be dialogues between education and training providers, and shareholders in the employment space, such as managers and representatives of the workers' unions. Moderating variable between the strategy review and enhancing of employability skills of TVET graduates will be government regulations.

2.3 Conceptual Framework

In an abstract sense, a conceptual framework illustrates how the independent or predictor variables relate with the dependent variable. The conceptual framework below provides a theoretical perspective of how the variables being studied influence the outcome of the research. Besides the independent variables on which the inquiry is made to ascertain how the research outcome is determined, the framework also showcases the moderating variable which in this case entails government regulations.

Figure 2.1

Conceptual Framework



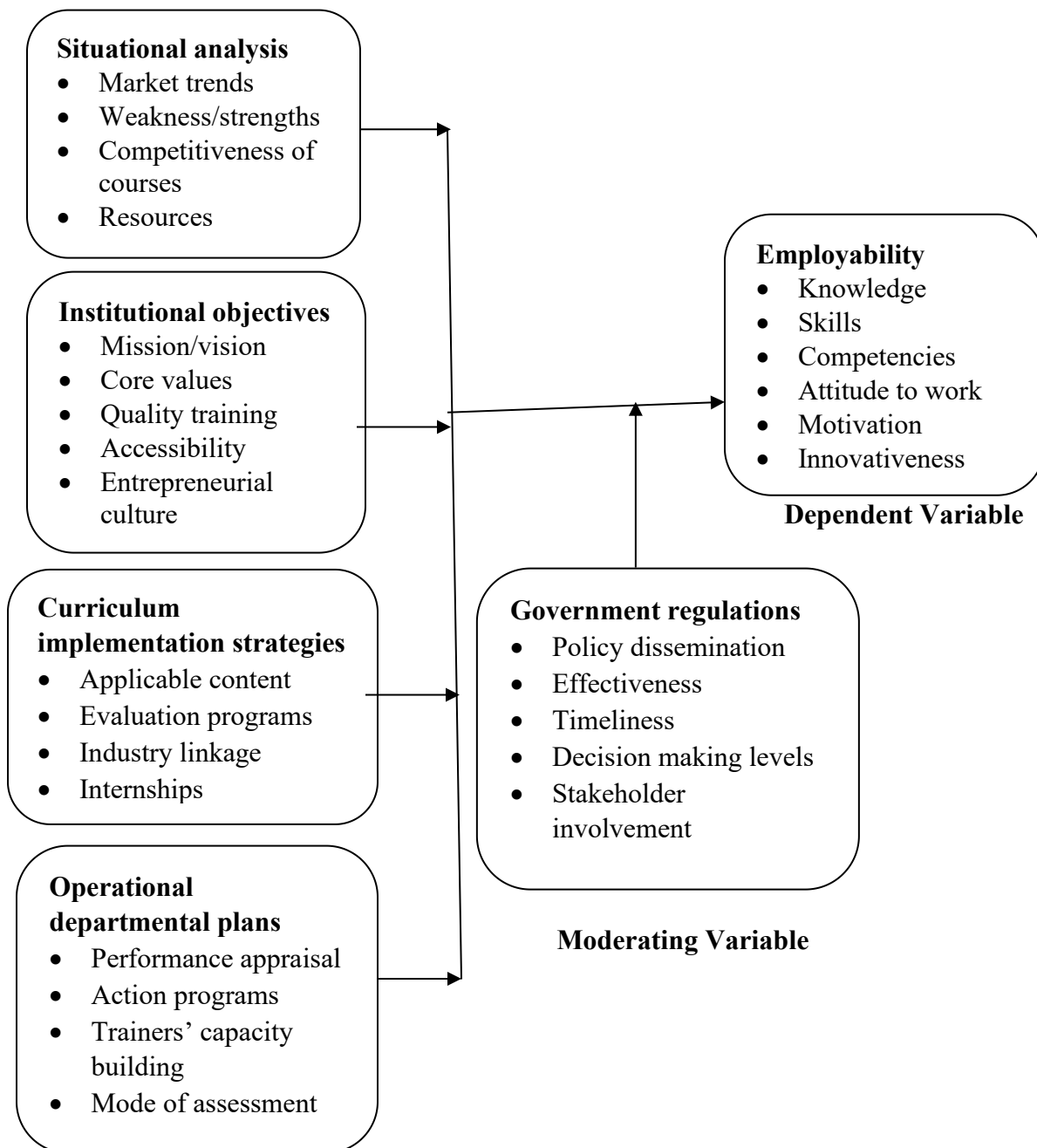
2.4 Operational Framework

The operational framework presents a theoretical relationship between variables of the study, how they are operationalized and measured. In this study, independent variables included situational analysis, institutional objectives, institutional curriculum, and departmental plans. These were studied to understand their effect, influence or impact on the skills and knowledge of students who have completed their education and training from technical colleges. Employability was analyzed and measured as a product or end result of the predictor variables. Predictor variables and the dependent variable were moderated by government regulations which can

significantly influence how or the extent to which each independent variable influenced or impacted the outcome of the research. The variables were measured using different indicators, indicated in figure 2.2.

Figure 2.2

Operational Framework



2.5 Summary of Literature Review

Based on the four research themes which centered on the specific study objectives, close to 140 empirical sources were reviewed and duly acknowledged in the study. The following table provides summary of past literatures which were reviewed to identify researchable gaps based on the topic of the research. Apart from four theories which were critically analyzed to anchor the study, the chapter presented several recent studies which were related with strategy review and the dynamics of enhancing of employability skills among TVET graduates in Kenya. These literatures however dwelt on different sites across the world, hence giving the researcher an opportunity to carry out comparative reviews. Summary of the literatures reviewed is documented in the table 2.1 below.

Table 2.1***Summary of Literature Review***

Author	Article	Variable	Methodology	Findings
Hordósy, R., Clark, T., & Vickers, D. (2018)	Lower income students and the ‘double deficit’ of part-time work: undergraduate experiences of finance, studying and employability	Situational analysis	Survey	<ul style="list-style-type: none"> - Curriculum development and/or review can therefore be viewed as a progressive undertaking where the institutional management is expected to conduct the review based on needs assessment - Within the context of strategy review of TVET colleges, situational analysis is a process through which organizations identify internal and external factors that can impact their operations either negatively or positively
Knox, J., & Stone, M. (2019).	Embedding employability skills for the legal professionals of the future	Situational analysis	Descriptive method	<ul style="list-style-type: none"> - Situational analysis should be pegged on the performance targets of the institution intended to enhance needs of the learners through improved teaching contents and means of delivery of the materials by the teachers
Nugraha, H., Kencanasari, R., Komari, R., & Kasda, K. (2020).	Employability Skills in Technical Vocational Education and Training (TVET)	Situational analysis	Survey	<ul style="list-style-type: none"> - Situational analysis should be pegged on the performance targets of the institution intended to enhance needs of the learners through improved teaching contents and means of delivery of the materials by the teachers. Furthermore, TVET institutes should be prepared to offer the best to their students, informed by changing employment markets.
Chan, C. K. Y., Fong, E. T. Y., Chan, C. K. Y., & Fong, E. T.	Disciplinary differences and implications for the development of generic skills : a study of engineering and business	Situational analysis	Literature review	<ul style="list-style-type: none"> - there is a gradual increase in employment of TVET graduates in Kenya, and across the world, as a result that institutions in this sector offer the right skills needed in the job market - Through a flexible, demand-driven, and learner-

Y. (2018).	students perceptions of generic skills			centered approach, the TVET industry-led curriculums will ensure that there is an effective link of the TVET institutions and employment partners to enable training of students on the most needed skills in the job market.
Apunda, E. A., de Klerk, H. M., & Ogina, T. (2017)	Technical knowledge and skills development in the informal sector in Kenya: The case of custom tailors	Situational analysis	Literature review	<ul style="list-style-type: none"> - Situational analysis related to TVET strategy review presupposes knowledge about the environment in which the curriculum is being implemented and the dynamics of the job demand in the employment market - Situational analysis must incorporate as many stakeholders as possible, as opposed to institutional top management alone. Since TVET educational and training model involves several partners in its implementation, which include the government as the regulator and the private sector as employers, it is envisioned that there should be adequate involvement of both players to propose and initiate reviews from time to time as the job market keeps on evolving.
Kithae, P. P., Karanja, K., & Nyaga, J. (2017).	Effect Of Technical Education Policies On Technology Adoption Amongst Micro And Small Enterprises In Kenya	Situational analysis	Survey design	<ul style="list-style-type: none"> - Noted that very few institutions offer specialized support to students with special needs. - Some of the mostly affected category of students included the visually impaired who did not receive guidance and counseling services from their colleges. - The study recommended enhanced public-private partnerships where the government provides the right policy direction on governance of TVET, curriculum reviews, internship, TVET financing

<p>Kintu, D., Kisilu. M. K., & Ferej, A. (2019).</p>	<p>Employers' Perceptions about the Employability of Technical, Vocational Education and Training Graduates in Uganda.</p>	<p>Situational analysis</p>	<p>Quantitative case study</p>	<p>and resource mobilization, as well as quality evaluation through established and reliable structures and systems</p> <ul style="list-style-type: none"> - Policies should as much as possible be aligned to the current job demands, while at the same time allowing involvement of the private sector through various platforms and partnerships for effective response of the reviews to the changing labour market.
<p>Picatoste, J., Pérez-Ortiz, L., & Ruesga- Benito, S. M. (2018).</p>	<p>A new educational pattern in response to new technologies and sustainable development. Enlightening ICT skills for youth employability in the European Union</p>	<p>Institutional objectives</p>	<p>Descriptive study design</p>	<ul style="list-style-type: none"> - involvement of employers in the review of employability skills of TVET graduates was critical in providing an objective analysis of the situation - findings indicated that at least 60% of the employers agreed that TVET graduates had basic ICT and interpersonal skills needed for the work they trained for. - Yet, some of the graduates from TVETs lacked people management skills, including how to relate well at the work place and make appropriate decisions in critical areas that needed their undivided attention and abilities, implying that something was missing on the social part of grooming for the job market. - TVET to produce to the job market responsible and responsive citizens with the desire to create meaningful change in areas of operation - A TVET graduate is expected to be equipped with innovation and leadership skills, with a clear focus on professional excellence based on holistic nurturing and development at personal and career

					levels
					- TVET establishments to be strongly associated with imparting of hands-on skills and knowledge to students that pass through the system
Suleman, F. (2018).	The employability skills of higher education graduates: insights into conceptual frameworks and methodological options	Institutional objectives	Academic paper on strategy formulation		- Overall, TVET objective is centered on equipping learners with the right training in environment defined by fast evolving employers' requirements from prospective employees
Mumbe, K. (2020)	Institutional factors and the acquisition of employable skills among students in technical, vocational education and training institutions in Kilifi County, Kenya	Institutional objectives	Academic paper		- Results indicated that the situation led to disinterest in the training and subsequently caused low enrollment. Despite the efforts by the TVET institutions to prioritize training of students based on the current job market demands, they lacked sufficient training resources and facilities
Anwar, J., & Hasnu, S. A. F. (2013).	Ideology, Purpose, Core Values and Leadership: How they influence the Vision of an Organization?	Institutional objectives	Insights from literature review		- The SADC's capacity was constrained in TVET training due to poor teachers' training and lack of money as well as inadequate infrastructure for initiating and sustaining research.
Kanwar, A., Balasubramanian, K. & Alexis, C. (2019):	Changing the TVET paradigm: new models for lifelong learning	Institutional objectives	Empirically examination of hypothesis		- many countries across the world are aware of the need to make TVET courses demand-driven, but their TVET systems are predominantly supply driven, especially in sub-Saharan (SSA) countries which often experience scarce resources and inferior technology. - A major weakness in majority of the SADC countries however involves lack of clear targeted guidelines for training new entrants into the employment market

Haßler, B., Haseloff, G., & Adam, T., et al. (2020):	Technical and Vocational Education and Training in Sub-Saharan Africa: A Systematic Review of the Research Landscape	Institutional objectives	Survey design	<ul style="list-style-type: none"> - weak feedback mechanisms between the labour market and the TVET institutions were a common phenomenon. - The same challenge was being witnessed regarding TVET monitoring and evaluation systems which may not be robust enough to provide effective and meaningful feedback for refining delivery of the TVET training and education model.
Norton, T. (2018).	Employability Skills for TVET Graduates	Institutional objectives	Strategy literature review	<ul style="list-style-type: none"> - There is lack of seamless systems allowing credit transfer for students across education streams for upward academic development in TVET - As well as limited opportunities for financing students from less fortunate economic backgrounds. - Inadequate relevant skills by TVET graduates in the job market is also a hindrance for other key stakeholders in the career development and employment sectors to readily integrate into the TVET education and training model
Aluoch, J. R. J (2021)	The extent to which technical and vocational education and training institutions prepare their graduates for the labour market in Kenya	Institutional objectives	Online survey	<ul style="list-style-type: none"> - TVET trainees in Kenya are not provided with the right modern skills required in the labour market today. - Deficiency in training facilities and lack of clear procedures for coordination and conducting industrial attachments for the trainees made it untenable to produce the best TVET graduates for the current job competitive job environment.
Ochami, E. (2020).	TVET Graduates have Increased Chances of Getting Jobs. Here's the Reason.	Institutional objectives	Review point on extant literature	<ul style="list-style-type: none"> - TVET graduates still stand better changes of being absorbed into the job market compared to university graduates. - Besides employability which dominates the objectives of TVET training, a number of TVET providers are beginning to adopt the important principles of flexibility, adaptability, and lifelong

Abdullah, Z., Hoque, K. E., Ramlan, N. H., & Shafee, S. (2019).	Designing the Structural Model of TVET Lecturers’ Professionalism and Generic Skills Based on an Empirical Study in Malaysia.	Operational departmental plans	Insights from literature review	<p>skills as the hallmark of best practices and foundation for a better equipped TVET graduate.</p> <ul style="list-style-type: none"> - Most TVET colleges in Kenya offer practical oriented skills-based courses which are very relevant in the job market. This trend has enabled the graduates to master the right employability skills needed in the job industry today - Departmental plans can provide a roadmap on how an institutional department intends to rollout detailed on priority basis and the resources needed to accomplish specific tasks - Departmental plans in TVET institutions must be set within certain reality checks, such as the existing resources and the timelines needed to achieve certain landmarks. - However, departmental plans must be accompanied by budgetary allocations, human resource expertise, and the element of time. Effectiveness of departmental plans will often depend on the amount and quality of its core elements allocated for achieving the intended objectives
Ismail, A. A., & Hassan, R. (2019)	Technical Competencies in Digital Technology Towards Industrial Revolution	Operational departmental plans	Empirically examination of hypothesis	<ul style="list-style-type: none"> - Government to advocate for participation of different key stakeholders in curriculum design, review, as well as implementation for broader training outcomes. - This approach would ensure up-to date skilled and knowledgeable TVET graduates needed in the global economic development as opposed to addressing the employment needs of just limited economic environment

Mackatiani, C. I., & Ejore, P. E. (2023)	Technical Education Policies in Colonial and Independent Kenya	Operational departmental plans	Survey design	<ul style="list-style-type: none"> - The policy on technical and vocational training education has evolved over a very long time - Yet, the TVET sector has not been growing with the right pace to accommodate the fast-changing employment scene'
Karim, Z. I. A., & Maat, S. M. (2019).	Employability Skills Model for Engineering Technology Students	Operational departmental plans	Empirically examination of hypothesis	<ul style="list-style-type: none"> - Common challenges related to departmental plans in TVET institutions mainly revolved around lack of infrastructure, inferior training equipment and limited physical facilities, as well as low quality programs and teaching staff.
Ngugi (2019)	Management practices and implementation of strategic plans in vocational training centers in Kiambu County, Kenya	Operational departmental plans	Academic paper	<ul style="list-style-type: none"> - Proper design, review and implementation of department plans help to communicate an institution's main priorities through a strategic outcome, program and expected results. - Institutional department plans inform faculty members and students on planned activities and expenditures on different items meant to support effective learning and enhancing the outcome of the overall training. - The study recommended fostering of planning practices and strengthening of competence of employees through effective communication systems

2.6 Summary of Research Gaps

TVETs' graduates' employability has continued to form scholarly debates for the longest time now. This is because the TVET sector is largely intended to provide students with hands-on skills, with the expectations that reviews will often be conducted to match the skills and knowledge being offered with the current opportunities in the job market. Despite the study site and research approach dynamics of these articles, periodicals, and books among other accredited sources of information for this study, more important and focused research gaps were identified, which were consequently addressed. The gaps identified during literature review were related to situational analysis, institutional objectives, curriculum implementation strategies, and operational departmental plans as components of strategy review and which formed the basis for this study.

Mui et al. (2018) did careful assessing of strengths and challenges associated with situational analysis in an organization and noted that situational analysis should be pegged on targets set for the institutional outputs. However, the research was conducted almost 5 years ago today and within a study site context of SMEs in Malaysia which may no necessarily be similar to the one in Kenya in the TVET industry. Another noted research gap was related with a study by Dagnino et al. (2017) on situational analysis and needs assessment in the TVET sector which noted that these are critical elements that should be critical considerations at initial phases of curriculum development or review. Situational analysis offers clear status for the curriculum reviewers to be assured of the likely success and/or failures of their initiatives.

Related to strategy review among TVET operations against the long term need of improved employability of TVET graduates, situation analysis would ideally imply trying to survey the

employment environment at any given time to understand the existing gaps that can effectively be addressed through proper training of students in the TVET learning establishments. Yet, Nugraha et al. (2020) noted that situational analysis of TVET institutes may not be tenable for respective institutions without involvement of other investors, such as the government which provides funding and regulatory frameworks on how TVET should be managed.

In a study by Mumbe (2020) on employability skills among TVET students in Kilifi County, it was revealed that there were several dynamics related to the students' attainment of the right skills from TVET. Involving a target population of 2,564 comprising of principals, instructors, 2nd year trainees and graduates, through purposive and stratified random sampling technique, 300 individuals participated in the research. Key research outcomes provided that basis to conclude that the situation led to disinterest in the training and subsequently caused low enrollment. Despite the efforts by the TVET institutions to prioritize training of students based on the current job market demands, they lacked sufficient training resources and facilities. This study was done almost 3 years ago, and focused in Kilifi County, which may be dissimilar to Nairobi metropolitan counties.

Nugraha et al. (2020) acknowledged that there is necessity of employability capacity building by all TVET graduates regardless of their career field. This view was informed by the expanding job market where employers are sourcing labour from across the globe. Based on a review of literature related to different countries operating under different work environments, the research noted that employability skills among TVET graduates must be viewed from wider social, economic and political contexts. In this sense, employability skills can be categorized as people management skills, specializations in specific career areas, interpersonal skills, ICT training, and

managerial as well as creativity and innovation acumen. Additionally, students with high employability skills should be able to demonstrate their acumen. Hence, the current study was justified in TVETs in Nairobi metropolitan counties.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Methodological applications, tools and procedures adopted for addressing the research problem were addressed in this chapter. Specifically, chapter 3 highlighted different components of the research methodology applied to achieve the objectives of the research. These were presented as shown under various subsections of the chapter.

3.2 Research Philosophy

The research used positivism as its research philosophy. According to Aggarwal and Ranganathan (2019), positivism postulates that the shared universe can be studied objectively where a researcher disassociates her/himself from personal prejudices to independently focus on the research problem to be examined. In this sense, tenets of the research philosophy portray it as based on acquiring truth which is usually founded on the positive information obtained through observable experience.

The philosophy argues that any other knowledge outside observable or demonstrable facts should be treated as hypothetical (Bryman, 2016). Positivism research philosophy further emphasizes on treating only analytic statements as truth where reason prevails in the analysis. In social research, the philosophy advocates for brief, clear and concise discussions where the researcher's subjective feelings and interpretation are not allowed to interfere with analysis and processing of collected data.

3.3 Research Design

Survey research design was adopted where it sufficed to use statistical and narrative information. Survey design is a correlational research approach that enables investigators to explore the relationship between variables without manipulating or controlling of any of the variables (Aggarwal & Ranganathan, 2019). The design further allows a holistic approach to the research questions. In a survey research design, structured questions are prepared to gather precise set of data among the research participants (Ranganathan & Aggarwal, 2018).

The design allowed the researcher easy accessibility to information about the research topic to gain better insights of the study problem in order to provide solution through a robust empirical inquiry (Bryman, 2016). Additionally, the design enabled the researcher to objectively measure general trends or perspectives about the research topic before arriving at conclusions and making recommendations based on empirical data.

3.4 Target Population

This refers to the subjects, items or objects that the researcher intends to pick a sample from, conduct research and draw conclusions (Flick, 2017). The target population must have common and distinct characteristics such that its sample is a true representation for the entire group. This study's population constituted Ministry of Education (MOE) officials, 506 TVET institutes from Nairobi, Machakos, Kajiado, and Kiambu metropolitan counties. Nairobi metropolitan counties were chosen for this study due to the big concentration of TVET institutions in the region and the different unique operational challenges each one of them was likely to be experiencing. The chosen study site therefore provided the diversity needed to comprehensively address the different dynamics influencing performance of the TVET sector in general. Summary in the table

below shows distribution of TVET institutions in the four counties as per the current statistics from the TVETA. The institutions provided the basis from which to generate the sampling frame for the study.

Table 3.1

List of Number of TVET Institutions in Four Nairobi Metropolitan Counties

S/N	County	Public	Private	Total
1.	Nairobi	35	278	313
2.	Kajiado	5	32	37
3.	Kiambu	9	104	113
4.	Machakos	7	36	43
Totals		56	450	506

Different categories of management of 506 TVET establishments were involved in the study since they were best-placed to provide relevant information related to strategy review in their respective institutions vis-à-vis employability of TVET graduates. Categories of individuals to participate in the research included 506 principals/deputy principals, 506 registrars, 506 deans of students, and 1518 HODs, making a total of 3036 individuals who potentially had relevant information for answering the research questions. All the 506 TVET institutions formed the sampling frame for the study from which the sample was selected. However, the subject of research or research participants included principals/deputy principals, registrars, dean of students for academics, and heads of departments that were best placed to provide relevant data for addressing the research questions. Summary of target population is illustrated in table 3.2.

Table 3.2

Target Population

Category	Target Population (N)	Percentage (%)
Principals/deputy principals	506	16.7
Registrars	506	16.7
Dean of students for academics	506	16.7
Heads of departments	1518	50.0
Total	3036	100.0

3.5 Sampling Procedures and Sample Size

Stratified random method was applied for sample selection. Stratified random is a sample selection method which allows a researcher to first group the population into unique strata before picking a proportional sample from each of the strata (Ranganathan & Aggarwal, 2018). The sample of the study was calculated using Yamane (1967) formulation based on the 4 strata of the respondents:

$n = \frac{N}{1+N(e)^2}$, where n represented sample size, N population (sampling frame) and e level of precision or margin of error. In this case, N= 3036, hence the sample size will be:

$$n = \frac{3036}{1+3036(.05)^2} = 353. \text{ Hence, the sample size for the study was 353.}$$

Table 3.3
Sample Size

Category	Target Population (N)	Sample Size
Principals/Deputy Principals	506	59
Registrars	506	59
Dean of students for academics	506	59
Heads of Departments	1518	176
Total	3036	353

3.6 Research Instruments

A questionnaire was used for the collection of data. Heyvaert (2016) describes a questionnaire as a list of questions or items applied to collect structured information from research participants about their experiences, opinions, or attitudes regarding the study subject. The questionnaire allowed for collection of mixed data where numerical and narrative data from the respondents was triangulated. A questionnaire was more suitable for the study since it enables easy collection of a lot of both statistical and narrative data within the shortest time possible while also allowing the respondents to interpret the questions in a uniform manner. This in turn guaranteed more credible data for meeting the objectives of the study. Besides, the research tool made it easier for the researcher to organize detailed data for processing and analysis, hence saving time during the entire fieldwork process (Ranganathan & Aggarwal, 2018). Throughout data collection, the researcher maintained close contacts with the respondents to clarify on any emerging issues in real time.

3.6.1 Pilot Study

Pilot was the first step in preparation for the actual study. Testing of the research questionnaire was undertaken where data for carrying out this exercise was collected from Kiambu Institute of Science and Technology in Kiambu County, with 30 respondents being involved. The process helped the researcher to revise the questionnaire and rephrase questions where necessary so as to capture the real intention of the research during the main study (Bryman, 2016; Walliman, 2017).

Pratt and Yeziarski (2018) recommend pretesting of the research tool prior to commencement of fieldwork for the actual research so as to allow an opportunity to address its constructs and contents and allow collection of credible data during the main study. Vogel and Draper-Rodi (2017) argue that pre-testing of research tool in social research cannot be underestimated since without getting it right in designing of the research tool, the researcher stands the risk of collecting incorrect data due to wrong or illogical questions posed on the questionnaire.

The pilot study involved 35 questionnaires, which formed 10% of the sample of 353 for the study where these were distributed to the four categories of the respondents in Kiambu Institute of Science and Technology. According to Kothari (2013), 10% of the sample for the study is usually sufficient to provide credible findings for addressing consistency of the research tool. After data collection, the questionnaires were checked for completeness before data was keyed in to process the findings. Cranach's alpha (α) was generated after pilot data was entered and processed using SPSS to check internal consistence. The Cranach's alpha (α) was 0.81, thereby confirming that the questionnaire was of high standards to be used for data collection of the actual study. Kothari (2013) further observes that a value of Cranach's alpha of 7.0-1.0 indicates recommended standards for a research tool to be used for fieldwork. A Cranach's alpha with a

value of less than 7.0 usually implies that the tool's internal consistence is in doubt; so in this case the questionnaire's internal consistence was validated.

3.6.2 Validity Test

The questionnaire was tested for validity to ascertain if it was able to accurately measure and meet its intended purpose (Rose & Shevlin, 2016). This process of testing the questionnaire also helped to explain how well the collected data was going to cover the intended area of investigation. Construct and content validity were tested. Construct validity shows the extent to which a method used for measurement accurately signifies a construct, such as a person's attitude or belief. Content validity indicates the level to which items sufficiently measure or represent content of the trait or property the researcher wishes to measure (Sekaran & Bougie, 2016). Expertise of the university supervisors was utilized to ascertain how properly and precisely the tool was framed such that they could elicit the right responses during data collection.

3.6.3 Reliability Test

Research tool reliability entails the extent the level a given tool produces steady results as a result of frequent use (Bryman, 2016). Internal consistency reliability focuses on the steadiness of the score of independent items in an instrument which in turn ensures its standardization. Split-half method was applied where Cronbach's alpha was generated after pilot data was keyed into SPSS computer software. The range of figures 0.7-1.0 was considered as the standard for testing internal consistency of the questionnaire, with the whole process of pilot test intended to ensure that the research tool is reliable.

3.7 Data Collection Procedure

To begin with, the researcher formally engaged two research assistants who were properly trained on the questionnaire and all data collection steps. Together with the researcher, the team worked in harmony to complete fieldwork in about 3 weeks. Each of the three members of data collection team was expected to administer about 117 questionnaires. The questionnaires were basically administered through face-to-face interviews. However, in some cases, blank questionnaires were left for the respondents to self-administer before the research team could collect completed copies on a later agreed date. Depending on fieldwork dynamics, some of the respondents were approached in advance through phone calls or emails to book appointments for questionnaire administering. Such cases included where some respondents were not easily available for instant engagement in data collection.

After fielding all the questionnaires, the researcher assessed the questionnaire return rate while at the same time making follow-ups with the research assistants and the respondents where necessary to ensure that the response rate was as high as possible. Close supervision of fieldwork also ensured minimal cases of refusals or reluctance of the respondents to be involved in the research. The final step of data collection involved collating all completed and returned questionnaires to check if they were correctly and fully filled before data analysis could commence.

3.8 Operational Definition of Variables

The study focused on how strategy review impacted TVET graduate employability in Kenya. Independent variables included situational analysis, institutional objectives, institutional

curriculum, and departmental plans which were studied to understand how they influenced employability (dependent variable) of TVET graduate in Kenya. There were also government regulations which could play a moderating role between the influence of strategy review and TVET graduate employability in Kenya. As demonstrated in table 3.4, operationalization of variables helped to explain how the researcher specifically observed and measured each variable.

Table 3.4***Operationalization and Measurement of Variables***

Category of variable	Indicators	Data analysis methods	Measurement & tools
Independent variables			
Situational analysis	<ul style="list-style-type: none"> • Market trends • Weakness/strengths • Competitiveness of courses • Resources 	<ul style="list-style-type: none"> • Descriptive • Inferential • Thematic content 	<ul style="list-style-type: none"> • Likert scale • Narrative questions • (SPSS & Excel)
Institutional objectives	<ul style="list-style-type: none"> • Mission/vision • Core values • Quality training • Accessibility • Entrepreneurial culture 	<ul style="list-style-type: none"> • Descriptive • Inferential • Thematic content 	<ul style="list-style-type: none"> • Likert scale • Narrative questions • (SPSS & Excel)
Institutional curriculum	<ul style="list-style-type: none"> • Applicable content • Evaluation programs • Industry linkage • Internships • Practicals 	<ul style="list-style-type: none"> • Descriptive • Inferential • Thematic content 	<ul style="list-style-type: none"> • Likert scale • Narrative questions • (SPSS & Excel)
Departmental plans	<ul style="list-style-type: none"> • Performance appraisal • Action programs • Trainers' capacity building • Mode of assessment 	<ul style="list-style-type: none"> • Descriptive • Inferential • Thematic content 	<ul style="list-style-type: none"> • Likert scale • Narrative questions • (SPSS & Excel)
Moderating variable			
Government regulations	<ul style="list-style-type: none"> • Policy dissemination • Effectiveness • Timeliness • Decision making levels • Stakeholder involvement 	<ul style="list-style-type: none"> • Descriptive • Inferential • Thematic content 	<ul style="list-style-type: none"> • Likert scale • Narrative questions • (SPSS & Excel)
Dependent variable			
Employability	<ul style="list-style-type: none"> • Knowledge • Skills • Competencies • Attitude to work • Motivation • Innovativeness 	<ul style="list-style-type: none"> • Descriptive • Inferential • Thematic content 	<ul style="list-style-type: none"> • Likert scale • Narrative questions • (SPSS & Excel)

3.9 Data Analysis and Presentation

Data was analyzed descriptively, inferentially, as well as by using thematic content analysis technique. SPSS version 25 was used to organize and scrutinize numerical data, and this was complemented by excel to analyzed data descriptively and inferentially whereas qualitative data was processed by searching across the dataset to identify, analyze and report emerging themes and repeated patterns.

Numerical data was presented in form of frequency and percentages while inferential analysis involved ANOVA tests to check the impact of variables of the study on one another while p-values were used to test significance based on the hypotheses of the research. Similarly, coefficient of determination (R^2) was used to test model validity while correlation coefficients were used to measure linear correlation. Analyzed quantitative data was presented using tables and figures whereas processed qualitative data was documented using narratives and direct quotes from the respondents. Regression analysis was used to establish the relationship between strategy review and employability of TVET graduate.

3.9 Multiple Linear Regression Model

The below models were applied to show cause-and-effect relationship between variables:

Model 1

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon, \text{ where:}$$

Y = Employability

X_1 = Situational analysis

X_2 = Institutional objectives

X_3 = Curriculum implementation strategies

X_4 = Operational departmental plans

β_0 = Beta Coefficient/Constant

ε =Error term

$\beta_1, \beta_2, \beta_3$ & β_4 are the regression coefficients for the variables $X_1, X_2, X_3,$ & X_4 respectively.

Overall, significance of the model was tested using analysis of variance by use of F statistics at 95% confidence level. At the same time, the coefficient of determination R^2 was used to indicate the contribution of independent or predictor variables on the dependent variable or the study outcome. Testing the linear regression model was going to ascertain the degree or manner in which the predictor variables related with each other on one hand, and on the other hand, on how they influenced the outcome of the study or the dependent variable.

Model 2

Model 2 include the moderating variable (Z) as an independent variable

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + B_5 Z + \varepsilon$, where Z is government regulations which is the moderator in this case.

Model 3

This is the moderated multiple Linear Regression model showing the interactions of the moderating variable (Z) with all the other variables in the effect model (interaction terms)

$Y = \beta_0 + \beta_1 X_1 Z + \beta_2 X_2 Z + \beta_3 X_3 Z + \beta_4 X_4 Z + B_5 Z + \varepsilon$, where:

Y = Employability

X_1 = Situational analysis

X_2 = Institutional objectives

X_3 = Curriculum implementation strategies

X_4 = Operational departmental plans

β_1, \dots, β_4 = The corresponding coefficients for the respective independent variables

Z = Corresponding coefficients for the moderating variable.

ε = Error terms (Disturbance factors) which represent residual or values that are not captured within the regression model.

3.10 Ethical Considerations

The research participants were briefed about the intention of the research before they made the decision to be part of the research. They were also assured of high level of confidentiality of their shared data and were given assurance that their participation in the research was not in any way going to cause them any harm. At the same time, the researcher applied for all the necessary approvals from relevant authorities before commencing fieldwork. Additionally, processed data was published anonymously without revealing the actual names of the respondents or directly and openly linking any particular information to specific individuals. This step would protect the integrity of data and shield the respondents against any possible reprimanding from any quarters as a result of their involvement in the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The section presented a discussion of the research outcomes based on the objectives of the study. The study sought to establish how strategy reviews in the TVET learning institutions impact the whole question of employability of the college leavers after they have completed their education. The research specifically addressed four objectives, including situational analysis, institutional objectives, curriculum implementation strategies, and operational departmental plans and how they impacted TVET graduates' employability. The study further examined the moderating impact of government regulations on TVET institutions when it came to the association of strategy review and graduate employability in Kenya.

Apart from statistical data which was computed from various definite responses provided by the respondents, narrative information was also provided by the various categories of respondents to reinforce the quantitative data provided. To attribute the direct quotes in data presentation to specific respondents, the following codes were used: principal=P001-P054; Deputy Principal=DP001-054, Registrar=R001-53; Dean academic affairs=DAA001-051; Heads of Departments =HOD001-143. These codes were subsequently used to point out the category of respondents who provided the responses based on their serial numbers in each of those groups.

4.2 Response Rate

The study involved respondents from 506 TVET institutions from the 4 counties that participated in the research, and these were categorized as principals, registrars, deans of students, and heads

of departments. These categories represented key offices in top decision-making positions and instrumental in the running of the TVET institutions. As illustrated in table 4.1, a sample of 353 of individuals in the different TVET management positions was used in the study.

Table 4.1
Response Rate

Category	Sample Size	Response Rate	
	Frequency (n)	Frequency (n)	Percentage (%)
Principals/Deputy Principals	59	54	92
Registrars	59	53	90
Dean of students for academics	59	51	86
Heads of Departments	176	143	81
Total	353	301	85

As indicated in table 4.1, out of the sample of 353, not all were able to participate in the study, but 301 of them fully completed and returned the questionnaires. This number of respondents translated into the response rate of 85%, which according to Pratt and Yezierski (2018), is excellent questionnaire return performance for objective data analysis and answering of the research questions. The study further indicated that in every category of the respondents, the response rate was at least 81%, thus implying an objective representation or balance in terms of the data used for addressing the research questions.

4.3 Background Information of the Respondents

The respondents' personal information was sought based on a number of personal and respective institutional characteristics. These include the position the respondents held in their institutions of employment, their level of experience in years, gender, age category, level of education,

category of institution (whether public or private), and how long in years' different institutions had been in operational. Additionally, the respondents were asked about the total population of their respective institutions, the extent to which they were satisfied with the student numbers in their institutions and the number of students each of those institutions admitted in various programs on an annual basis. Inquiries were also made regarding the extent to which the respondents were satisfied with the annual enrolment numbers of the students. Besides the number of students admitted each year, it was important to find out how many of the students graduated annually from different programs and the extent to which the annual graduate numbers satisfied the respondents from different TVET institutes.

To understand the operations of TVET colleges, it was imperative to inquire about how many different programmes were being offered in various institutes, the extent to which the respondents were satisfied with the tutor/students ratio in various training programmes in their institution, and the reasons for rating of their satisfaction level. As a strategic resource in the running of TVET colleges, the respondents were asked about receiving of funding from government and/or non-government donors, and to give specific names in case there were non-governmental donors. It was also imperative for the study to understand if any money was periodically allocated for strategy review and the extent to which this was satisfying. At the same time, the research inquired whether different institutions had infrastructural development policy and the extent to which this policy was effective base on how they were applied by the respective TVET colleges. Regarding presence of strategy review policy, the respondents were expected to give a yes or no answer and indicate to what extent this policy was effective in different institutions. Lastly, the respondents were asked about the employment sector which absorbed most of their graduates, with the options of public sector, private sector, self-employment, or

uncertain to those who were not sure. They were also asked to explain why the different sectors they mentioned were employing most of their institutions' graduates. The different responses were then analyzed under different subheadings as subsequently illustrated in details.

4.3.1 Work Experience of the Respondents

The study also inquired about the respondents' work experience, where a summary is presented in table 4.2.

Table 4.2

Respondents' Work Experience

Experience in Years	Frequency (n)	Percentage (%)
1-5 years	72	24
6-10 years	133	44
11-15 years	52	17
16+ years	44	15
Total	301	100

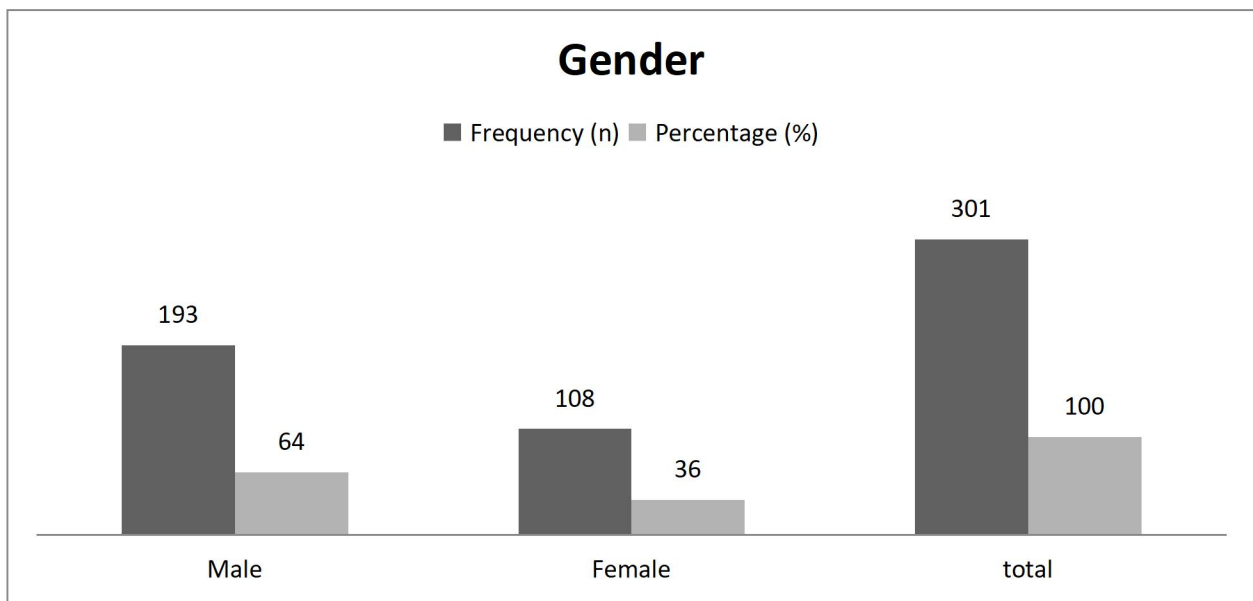
It further emerged that 7, 24% (72) of the respondents had 1-5 years' experience, 44% (133) 6-10 years, 17% (52) 11-15 years, whereas 15% (44) of them had work experience of more than 16 years. Overall, 76% (229) of the research participants indicated to have worked in their respective jobs for at least 6 years. This implied that majority of the individuals interviewed had sufficient experience to participate in the study.

4.3.2 Gender of the Respondents

Additionally, an inquiry was made regarding the respondents' gender, and a summary is presented in figure 4.1.

Figure 4.1

Respondents' Gender



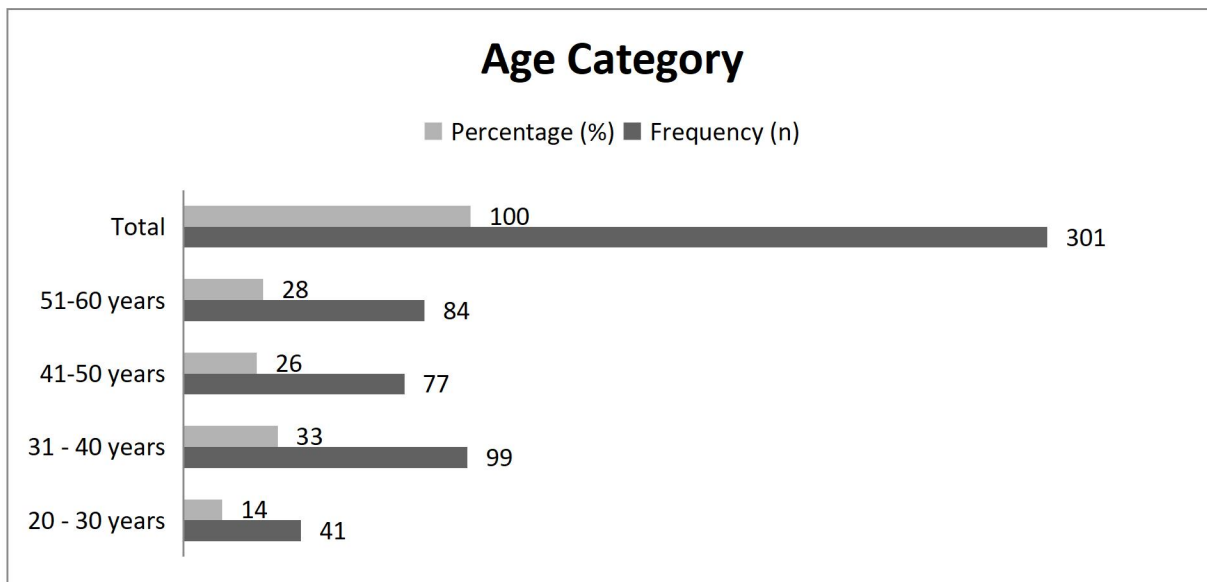
It was also noted that 64% (195) male against 36% (108) female of the total were interviewed. The gender distribution of the respondents implied that there was gender imbalance in key management positions in public and private TVET institutes, with a bias towards the male gender.

4.3.3 Age of the Respondents

Distribution of the respondents 'age was important for informing on the level of decision-making in top leadership of the TVET sector related to different independent colleges. Figure 4.2 captured summary of findings on the respondents' age categories.

Figure 4.2

Respondents' Age



The findings in figure 4.2 shows that 14% (41) of the respondents were aged 20-30 years, 33% (99) 31-40 years, 26% (77) 41-50 years, whereas 28% (84) of them were aged 51-60 years. Overall, a greater majority (86%) of the respondents were aged 31 years and above. This implied that individuals in key management of public and private TVET learning institutions were not in their youth years. The age distribution of the respondents may also explain why majority of them had at least 6 years of experience in their current jobs.

4.3.4 Level of Education of the Respondents

The highest educational attainment for the research participants was important in explaining the qualifications of the managements of TVET in Nairobi metropolitan counties, and by extension Kenya. Table 4.3 enlists a summary of the findings on the highest education qualification of the respondents.

Table 4.3

Respondents' Highest Level of Education

Level of Education	Frequency (n)	Percentage (%)
Diploma	53	18
Bachelors	165	55
Masters	77	26
PhD	6	2
Total	301	100

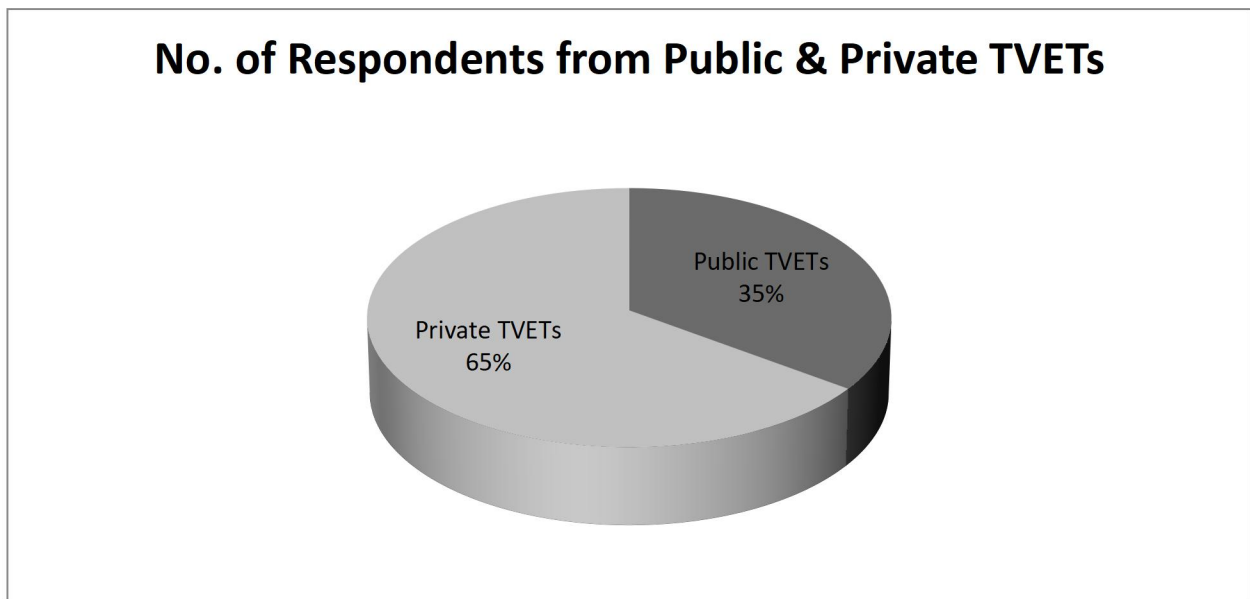
From the findings in table 4.3, 18% (53) had obtained diploma, 55% (165) had a bachelor's degrees, 26% (77) masters, while only 2% (6) of them reported to have attained PhD qualification. Generally, 85% had at least a first degree as their highest level of education. Distribution of statistics on the respondents' highest level of education implied that majority of the TVET institutions had well qualified staff in their management teams. The overall high education qualifications of the respondents many further imply that most TVET institutions were generally managed by highly qualified staff capable of making critical management decisions based on the emerging dynamics in the market.

4.3.5 Number of Respondents from Different Types of TVET Institutions

Both government and privately owned TVET institutions were involved in our study. This comparative approach was important in avoiding any likely biases related to the data used in the study based on how the institutions were being managed. Figure 4.3 gives summation of interviews from both public and private TVETs.

Figure 4.3

Number of Respondents from Public & Private TVET Institutions



The research outcomes in figure 4.3 show that 65% (196) of the respondents involved in the study came from private TVETs whereas 35% (105) of them came from public ones. The disparity of the types of the TVET institutions involved in the research was as a result of the realization that out of the 506 registered TVETs in Nairobi metropolitan counties from which the respondents were sampled, a greater majority (450) were private compared to only 56 public ones. However, during data collection, the two types of TVETs were proportionally visited to reflect objectivity in the data collected.

4.3.6 Operational Period of TVET Institutions

The study inquired about the number of years that different TVET institutions have been in operation in order to understand the challenges and opportunities they might have encountered throughout their operational period. Table 4.4 provides summary of the responses.

Table 4.4

Operational Period of TVET Institutions

Years of Operation	Frequency (n)	Percentage (%)
0-5 years	20	7
6-10 years	117	39
11-15 years	114	38
Over 15 years	50	17
Total	301	100

The statistics in table 4.4 indicates that 7% (20) of the TVETs had been in operation for between 0 and 5 years, 39% (117) for 6-10 years, 38% (114) for 11-15 years, while 17% (50) of the TVET institutes had been in operation for more than 15 years. Overall, 85% of the institutions had been fully operational for at least 6 years. This implied that a greater majority of them had experienced significant operational dynamics, including strategy reviews, which was the focus of this study.

4.3.7 Total Student Population/Enrollment

It was also imperative for the study to inquire about the number of students currently in different institutions to gauge their viability. Table 4.5 provides summary of these findings.

Table 4.5***Total Institutions' Students Population***

Total student population	Frequency (n)	Percentage (%)
Less than 1000	209	69
1000-5000	76	25
5000-10000	11	4
Over 10000	5	2
Total	301	100

As shown in table 4.5, 69% (209) TVET institutions had a maximum of 1000 students' population, 25% (76) had 1000-5000, 4% (11) 5000-10000, while only 2% of them reported to have more than 10000 students at the moment of the interview. Important to note is that out of the 506 registered TVETs in Nairobi metropolitan counties from which the sample for the study was selected, only 56 were public against 450 private institutions. This may explain why majority of them reported to have less than 1000 students currently undertaking their studies since a number of private TVET colleges may lack the capacity to attract very big numbers of students.

4.3.8 Level of Satisfaction with Current Student Population

Related to the number of students reported by the respondents with respect to their respective institutions, inquiry into the level of satisfaction about the enrolment numbers of students was critical in every institute. This was measured on a 5-point Likert scale (categories), as illustrated in table 4.6.

Table 4.6***Level of Satisfaction with Enrolled Students***

Extent satisfied with student numbers	Frequency (n)	Percentage (%)
1=Not at all satisfied	64	21
2=Not satisfied	118	39
3=Neutral	56	19
4=Satisfied	49	16
5=Very satisfied	14	5
Total	301	100

As indicated in table 4.6, 60% (182) of the interviewees were not satisfied about population of the students registered in their various TVET colleges. It also emerged that 19% (56) of them expressed impartial opinions (neither satisfied nor not satisfied), whereas only 21% (63 indicated to be satisfied with their registered number of students. From the distribution of the statistics on the extent of the respondents' satisfaction with the institutions' student population where only 21% were cumulatively either satisfied and very satisfied, it can be inferred that most of the TVET institutions in Nairobi metropolitan counties had greater potentials that were yet to be fully exploited.

4.3.9 Number of Students Admitted Annually

The research also inquired about the number of students that were admitted annually in every TVET establishment so as to ascertain the level of their performance and that of the sector in general. Table 4.7 provides summary of the findings.

Table 4.7***Annual Student Admissions***

Number of Students	Frequency (n)	Percentage (%)
Less than 500	133	44
500-1000	147	49
1000-1500	15	5
Over 1500	6	2
Total	301	100

As illustrated in table 4.7, 44% (133) respondents said their institutions admitted less than 500 students annually, 49% (147) admitted 500-1000, 5% (1000-1500), while 2% indicated they admitted more than 1500 students every year. Based on these findings, 56% of the TVET establishments had annual student admissions of at least 500 compared to 44% which were said to be admitting less than 500 students annually. These distributions can imply that the TVET sector is not currently performing optimally.

4.3.10 Level of Satisfaction with Annual Student Admissions

About how much satisfaction the research participants expressed regarding the number of students admitted annually, this information was important in determining the degree to which the institution's management considered the pace at which the TVET sector was contributing to the employment market. These responses are captured in table 4.3 which used 5-Likert scale to measure the respondents' opinions.

Table 4.8***Level of Satisfaction with Number of Students Admitted Annually***

Extent satisfied with annual admitted numbers	Frequency (n)	Percentage (%)
1=Not at all satisfied	7	2
2=Not satisfied	118	39
3=Neutral	96	32
4=Satisfied	67	22
5=Very satisfied	13	4
Total	301	100

Statistics in table 4.8 shows that 41% (125) of the interviewees were not satisfied about the numbers their institutions admitted into various programmes yearly. It also emerged that 32% (96) of them neither approved nor disapproved the number of students they had admitted, whereas 26% (79) were satisfied with their numbers of new entrants into their various teaching programmes in every year. The distribution of responses may imply that a greater number of the TVET institutions were not fully utilized in terms of the new opportunities for students to undertake relevant training in different sectors of the employment market.

4.3.11 Number of Students Graduated Annually

Regarding the number of students that graduated every year, this information was imperative in order to measure the rate at which the TVETs may be producing new job seekers into the market. This information was also important for gauging the performance of different institutions in the industry, which could also be rated to the challenges and opportunities associated with employability of TVET graduates. Table 4.9 provides summary of the findings.

Table 4.9***Number of Students Graduated Annually***

No. of Students	Frequency (n)	Percentage (%)
Less than 500	135	45
500-1000	153	51
1000-1500	10	3
Over 1500	3	1
Total	301	100

As illustrated in table 4.9, 45% (135) of the respondents expressed the least graduated number of students in their respective colleges, with a maximum of 500 graduates being released into the job market annually. The statistics further indicated that 51% (153) of the respondents said that their colleges were able to graduate 500-1000 students, 3% (10) 1000-1500, while only 1% (3) indicated they produced more than 1500 students annually who qualified to seek job opportunities with different prospective employers. Cumulatively based on the findings in table 4.4, only 55% of the TVET institutions in Nairobi metropolitan counties were able to graduate at least 500 students as new job seekers in the country.

4.3.12 Level of Satisfaction with Number of Students Graduated Annually

The study also inquired about how much the research participants were satisfied about the number of graduates their respective TVET colleges released into the job market on an annual basis. These views were important in helping to determine the opinion of the institutional management regarding maximization of teaching and training opportunities within the TVET sector at large. These findings are summarized in table 4.10 as provided from interviews.

Table 4.10***Level of Satisfaction with Number of Students Graduated Annually***

Extent satisfied with annual graduated numbers	Frequency (n)	Percentage (%)
1=Not at all satisfied	8	3
2=Not satisfied	138	46
3=Neutral	83	28
4=Satisfied	66	22
5=Very satisfied	6	2
Total	301	100

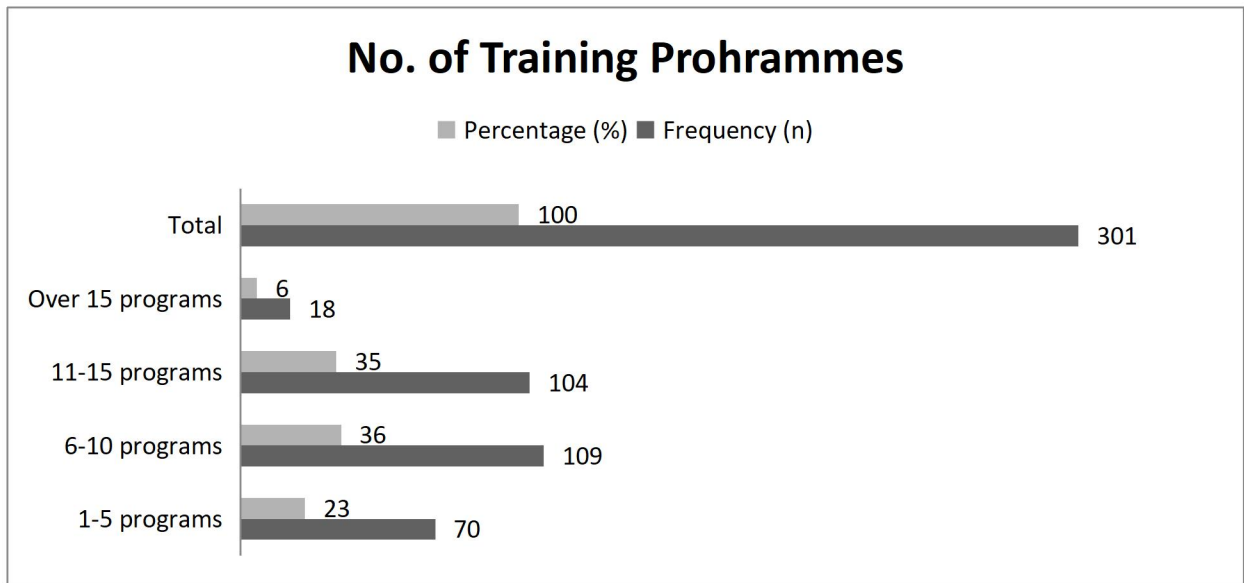
Based on the illustration in table 4.10, 49% (146) indicated they were not satisfied with their respective institutions' number of students being graduated annually. Also, 28% (83) of them had neutral views, while 24% (72) said they were satisfied with the number of students that were being released into the job market. These findings may imply that the TVETs were being underutilized, hence producing unsatisfactory number of graduates into the employment field. The high level of dissatisfaction or neutrality of views which accounted for 77% of the respondents may attest to the fact that there were huge gaps that were left to be exploited by the TVET sector in terms of admitting, training, and releasing into the job market the right quantity and quality of graduates.

4.3.13 Number of Training Programmes

This research further undertook to estimate performance of the TVETs in terms of number of various programmes being offered in different colleges. Figure 4.4 presents these findings.

Figure 4.4

Number of Training Programmes



The statistical distribution in figure 4.4 shows that 23% (70) respondents indicated that their respective institutions had between 1 and 5 different training programmes, 36% (109) 6-10, 35% (104) 11-15, whereas 6% (18) indicated they had more than 15 programmes. Despite the variation in the statistics of the available programmes, it can be inferred from these findings that the TVET sector was generally versatile in terms of their training niches.

4.3.14 Tutor/Students Ratios

Tutor/students ratio in various training programmes was an essential consideration as this determined the quality of teaching and overall outcome of graduates' abilities after completing their college education. Since it was rather obvious that in every training programme there must have been tutors allocated for the same, it was important for the interviewees to rate how much they were satisfied or conformable about the number of tutors assigned to teach those programmes.

Table 4.11***Level of Satisfaction with Number of Training Programmes***

Extent satisfied with tutor/students ratio	Frequency (n)	Percentage (%)
1=Not at all satisfied	48	16
2=Not satisfied	82	27
3=Neutral	71	24
4=Satisfied	73	24
5=Very satisfied	27	9
Total	301	100

On the extent to which the respondents were satisfied with the number of training programmes being offered by their respective TVET establishments, 43% (130) of them indicated they were not satisfied, 24% (71) had neutral views, while 33% (100) were satisfied with the number of training programmes that being offered by their individual colleges. Based on this statistical distribution, only 33% of the respondents cumulatively expressed satisfaction and high level of satisfaction regarding the number of programmes being taught in various TVET institutions they worked for. The findings may further imply that there are still unexploited training opportunities in the TVET sector that could be fully harnessed for further expansion of skills and knowledge to the students in different career fields. Going by the cumulative 68% of the respondents who had reservations (not at all satisfied, not satisfied & neutral) with the number of training programmes available in their colleges, by inference this could imply that there was room for improvement on the variety of certified programmes to be progressively launched.

For the respondents who gave the responses ‘not at all satisfied, not satisfied, or neutral views’, they were asked to further give opinions on how the situation on the number of programmes

could be enhanced within TVET colleges. Possible remedial approaches entailed creating more spaces in terms of lecture rooms and laboratories to accommodate additional number of programmes and students, and for practicals respectively. At the same time, there was need to improve public knowledge and awareness on some of the possible unique programmes through aggressive advertisements. The public sensitization approach would ensure that technical courses attracted the right caliber of students and maximized tutorial resources while at the same time enabling the students to get value for money during their studies.

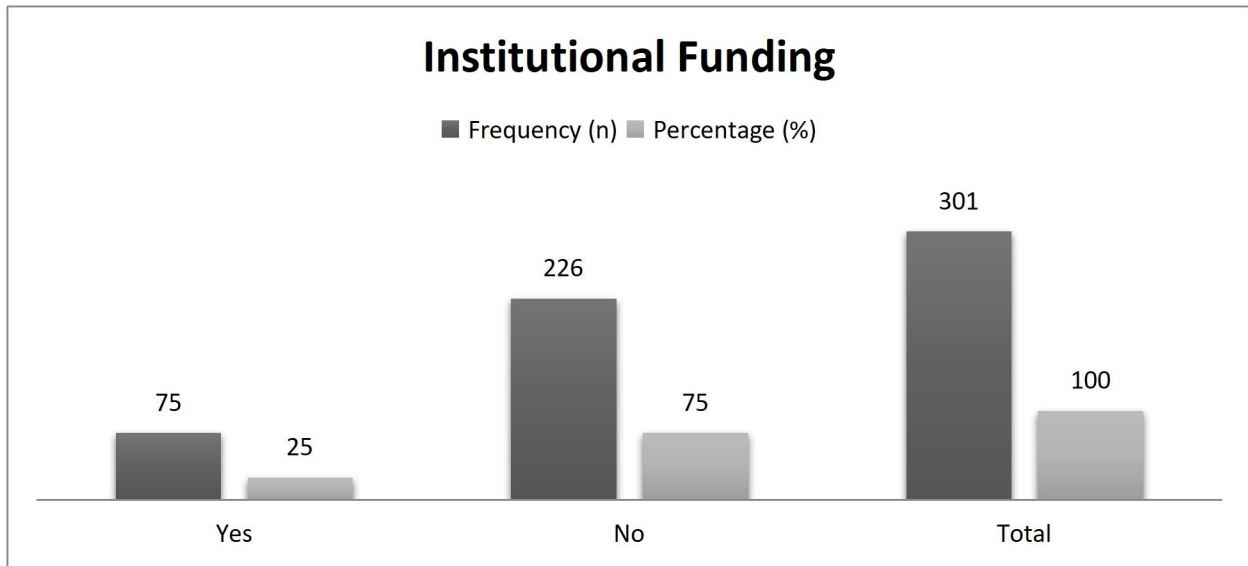
The respondents also explained the importance of harmonization of tutor/students ratios across all subjects, as too much imbalance in certain learning areas was likely to create long-term disadvantages among the learners. Besides introducing more courses, there were opinions regarding empowering the Higher Education Loans Board (HELB) to fund more students to encourage those intending to join middle level colleges to prioritize TVETs. Opinions were also provided regarding revolutionizing KUCCPS in order to create some balance in placement of students in public and private technical training institutions. This move would ensure that there was no undue advantage of public technical and vocational training colleges over private ones, especially given the realization that some of the private institutions were even better equipped to offer certain courses compared to public TVET entities. In public institutions, there were suggestions for improved tutor/students ratios through the government's more aggressive rationalization and fair tutor placement modalities.

4.3.15 Institutional Funding

Institutional funding was a critical component of the overall success of institutions of higher learning. This was especially the case in the technology and innovation driven TVET sector

which required modern infrastructures and systems for more meaningful operations and effective delivery of its mandate. Figure 4.5 illustrates the responses on whether or not different TVET institutions received funding from any government or non-government sources.

Figure 4.5
Funding of Institutions



As shown in figure 4.5, 25% (75) of the respondents agreed to be receiving funding from the government or non-government donors. It was also noted that a greater number of the research participants denied to be getting any kind of funding from either the government or any other sources, accounting for 75% (226). Based on these statistics, it can be inferred that funding for the TVET sector is inadequate since it may appear that only one third of the institutions receive any form of finances outside the revenues they generate by themselves through payment of fees by the students.

In order to improve the funding situation in the TVET sector, the respondents had a number of suggestions, including the need for the top management of TVETs to reach out to donors and

aggressively selling their institutions' agenda to as many well-wishers as possible. It also turned out that a number of TVET establishments which reported to be receiving funds from outside government relied on a Canadian organization, the Colleges and Institutes Canada (CICan), which was actively involved in supporting a number of local TVET entities in Kenya. Other international organizations which worked in collaboration with the government to fund public TVET entities included the World Bank, the African Development Bank (AFDB), and Japan International Cooperation Agency (JICA), to mention but a few. Overall, the idea of diversifying TVET funding in Kenya came out strongly from the respondents, with the indication that government funding alone was not adequate if the immense potentials of the sector was to be unlocked.

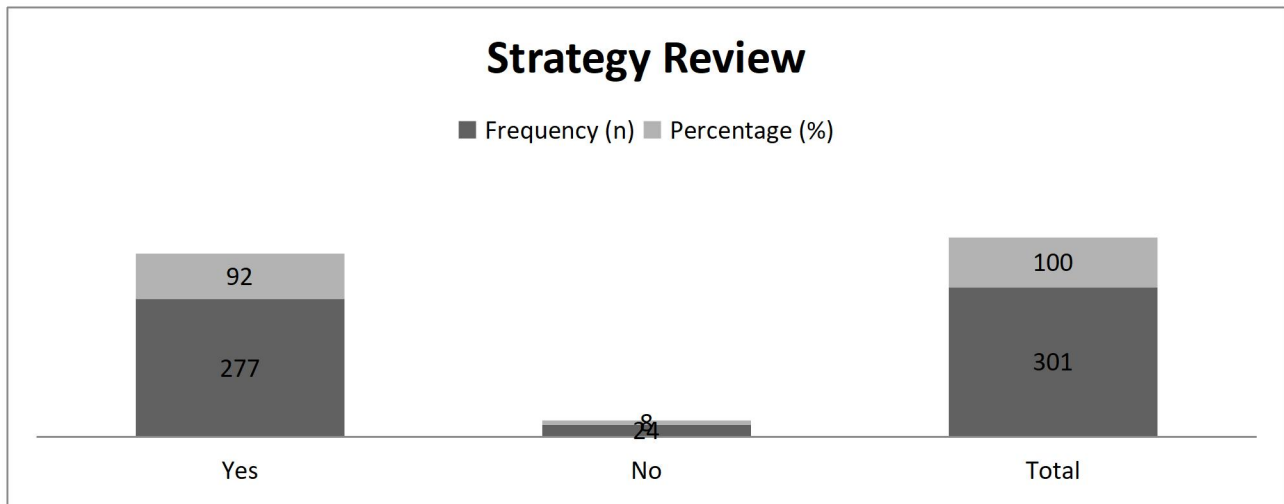
Combining of public and private funding has created and maintained a strong and sustainable financial support to the student fraternity, thereby enhancing college completion rates and subsequent joining of the employment market. Effectively established research centers significantly help in enhancing institutional innovation support capacity and general curriculum development and maintenance, such as in the Germany. However, funding of TVET education continues to face challenges across the world. For instance, some of the systems face several sectoral as well as occupational structural issues pertaining to emerging labour market dynamics. As noted by the Hippach-Schneider et al. (2007) the rising skills requirements and educational expansion dynamics which have greatly increased the number of high school leavers eligible for tertiary education tend to seriously strain governments and other funders across the globe. Such funding challenges may also place serious hurdles in tertiary education in general as absorption of learners in different fields of specialization may be negatively affected.

4.3.16 Institutional Strategy Review Policy

One of the critical areas of the study focus was strategy review policy in assessing organizational output relative to goals. As to whether different TVET organizations had existing strategy review policy where the respondents were expected to give either a yes or no response, the findings are summarized in figure 4.6.

Figure 4.6

Strategy Review Policy



Based on the statistics in figure 4.6, 92% of those interviewed revealed that their organizations had a strategy review policy in place, against 8% (24) of those who had a contrary opinion. The disparity on the two responses given where a greater majority said yes may indicate that the TVET sector is vibrant in terms of accommodating new ideas and the drive by the management to actively align their corporate agenda with emerging trends in the employment market.

4.3.17 Effectiveness of Institutional Strategy Review Policy

Despite the existence of strategy review policy in 92% of the TVET institutions as noted in 4.3.16 above, it was imperative to understand the extent to which such policies served their intended purposes.

Table 4.12

Extent of Effectiveness of Strategy Review Policy

Extent of effectiveness of strategy review policy	Frequency (n)	Percentage (%)
1=Not at all effective	6	2
2=Not effective	26	9
3=Neutral	30	10
4= Effective	194	64
5=Very effective	35	12
6=Not applicable	10	3
Total	301	100

As shown in table 4.12, statistics shows 11% (32) had the opinion that the strategy review policies of their respective organizations were not effective. It was also revealed that 10% (30) expressed neutral views regarding this opinion, while 76% (229) said the policies were effective, while 3% (10) indicated the question of strategy review policies did not apply to them since they never experienced any processes to that effect. Although cumulatively 76% of the respondents said that the strategy review policies were effective, given that 24% of them had contradicting views implied that there was still significant room for improvement on the whole question of

strategy review policies for TVETs, as a guiding principle towards improvement of operations and performance of the sector in general.

4.3.18 Institutional Strategy Review Policy Budgetary Allocation

Besides the existence of strategy review policy, inquiry was made regarding how much the interviewees were satisfied about TVET management’s budget allocation for implementation of the strategy review policies. Table 4.13 provides summary of these responses.

Table 4.13

Extent Satisfied with Budgetary allocation on Strategy Review Policy

Extent satisfied with strategy review allocation	Frequency (n)	Percentage (%)
1=Not at all satisfied	47	16
2=Not satisfied	106	35
3=Neutral	47	16
4=Satisfied	79	26
5=Very satisfied	12	4
6=Not applicable	10	3
Total	301	100

As summarized in table 4.13, 51% (153) were not satisfied with the budgetary allocations on strategy review policy implementation. At the same time, 16% (47) had neutral views, 30% (91) were satisfied, whereas 3% (10) of the respondents said this did not apply to them as their organizations did not have strategy review policies for them to be allocated budgets for implementation of the same. The findings further indicated that it was only 30% of the respondents (satisfied & very satisfied) that had clear positive opinions regarding budgetary allocations for the implementation of strategy review policy as a foundation for monitoring performance in terms of achieving of institutional goals and objectives. This may imply that

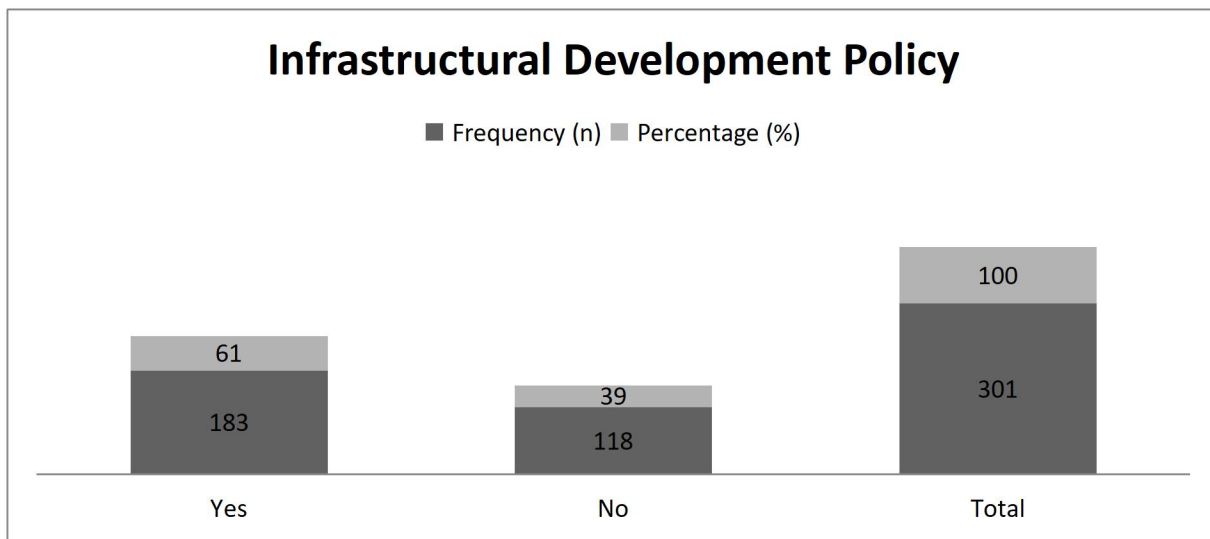
TVET institutions in the Nairobi metropolitan had a lot of ground to cover in terms of strategy review policy implementation for more effective and results-oriented stewardship.

4.3.19 Infrastructural Development Policy

Infrastructural development is one of the cornerstones in the capacity building of an institution in furtherance of its goals and objectives based on its mission and vision. There must however be a working infrastructural development policy to guide the process on a regular basis. On whether the TVETs had infrastructural development policy, the yes or no responses are distributed in figure 4.7.

Figure 4.7

Infrastructural Development Policy



The findings in figure 4.7 show that 61% (183) of those interviewed agreed that their respective TVET institutions had an existing policy on infrastructural development. On the contrary, 39% (118) of them said they did not have. From these findings, it can be inferred that despite the need for infrastructural development which was very essential for expansion of the operations and improved performance of the TVET establishments in the Nairobi metropolitan counties and

Kenya by extension, lack of a vibrant policy in almost a third of these institutions could be a serious limitation to the organizations.

4.3.20 Effectiveness of Infrastructural Development Policy

The existence of infrastructural development policy per se may not meet the TVET objectives unless the policy meets certain thresholds in order to effectively help the organization to achieve good outcomes. In seeking to ascertain about the level of effectiveness of infrastructural development policy for each of the TVET colleges, table 4.9 presents the results based on 5-point Likert scale.

Table 4.14

Level of Effectiveness of Infrastructural Development Policy

Effectiveness of infrastructural development policy	Frequency (n)	Percentage (%)
1=not at all effective	14	5
2=not effective	38	13
3=neutral	92	31
4=effective	115	38
5=not very effective	16	5
6=Not applicable	26	9
Total	301	100

Based on the summary in table 4.14, 18% (52) thought the infrastructural development policy for their respective TVET institutions was not effective. It also emerged that 31% (92) had neutral views, 43% (131) thought the policy was effective, while 9% (26) of the respondents said that the infrastructural development policy did not apply to them, since they did not have one in place. From the distribution of the findings in the table above, 43% of the respondents cumulatively

thought that the policy was effective and/or very effective, thus leaving out 57% who had a negative or low opinion of the effectiveness of the infrastructural development policy. This may imply that a sizeable majority of the TVETs need to improve in this particular area.

4.3.21 Employment Sector Absorbing TVET Graduates

The research further sought to understand the manner in which the TVET graduates were being absorbed in different employment fields, with the options provided as public or private sector employers, or self-employment where the graduates were not necessarily on anybody's payroll. Distribution of these responses is illustrated in table 4.15.

Table 4.15

Employment Sector Absorbing TVET Graduates

Employment Sector	Frequency (n)	Percentage (%)
Public sector	18	6
Private sector	134	45
Self-employed	138	46
Not sure	11	4
Total	301	100

As illustrated in table 4.15, 6% (18) of the respondents indicated that most of their graduates were being absorbed in the public sector of employment. It was also revealed that 45% (134) of the respondents thought that the private sector was employing most of the TVET graduates, 46% (138) self-employment, while 4% (11) of them said they were not sure. Based on these statistics, the private sector and self-employment were the most popular employment destinations for the TVET graduates, accounting for 91% altogether, among the possible employment avenues.

These figures seemed to resonate with the existing statistics by authoritative sources such as the World Bank and Kenya Private Sector Alliance (KEPSA) which indicate that the private sector (including self-employment in this case) contributes over 80% of Kenya's GDP. The respondents attributed versatility of the private sector to more opportunities for the young graduates from the TVET institutions. Also, there were more informal job opportunities within the private sector as opposed to the public sector, where most of the young people commonly venture as they continue to seek formal employment with the public service.

Other reasons provided regarding the high number of TVET graduates being attracted to the private as compared to the public sector included the fact that the sector has more job openings, and attracts people equipped with relevant entrepreneurial skills. P003 summarized these reasons as follows:

We usually impart our students with practical competences gained in their classwork and practicals, and prepare them well to go out there and be self-employed since that is what TVETs encourage. Most students admire being their own bosses and creating employment for others. As you know, currently the country has limited resources in the public sector. It has also come to our knowledge that our students love to be employed in the private sector where they do what they love most in their respective areas of expertise. Also, since we train students to be self-sustaining through creation of jobs for others, the skillsets we offer tend to help them achieve this objective while at the same time attracting other private employers.

Additionally, there was the case of lack of jobs in the government sector and private sector being usually very competitive. Despite the training of TVET students to be self-reliant in terms of job creation for others, the respondents expressed their reservations regarding the rate of growth in the private sector to absorb the thousands of TVET graduates who join the employment market annually.

4.4 Influence of Strategy Review in TVET Institutions on Graduate Employability

The influence of strategy review in TVET institutions was researched on based on four independent variables which have been analyzed in details in the subsequent subsections. These included influence of situational analysis, institutional objectives, curriculum implementation strategies, and influence of operational departmental plans in TVET institutions on graduate. Additionally, moderating effect of government regulations of TVET institutions and graduate employability are discussed in this section.

4.4.1 Influence of Situational Analysis in TVET Institutions on Graduate Employability

In trying to establish how strategy review impacted in suitability for employment of graduates coming out of TVET colleges after completion of their studies, specific objective 1 of the research was to assess how situational analysis contributed to the imparting of the right skills to the TVET graduates in preparation for employment in different career paths. On whether the TVET institutions carried out situational analysis on regular basis where the respondents were expected to give yes or no answers, the statistics are summarized in table 4.16.

Table 4.16

TVETs' Regular Situational Analysis

Situational analysis	Frequency (n)	Percentage (%)
Yes	258	86
No	43	14
Total	301	100

As noted in table 4.16, 86% (258) of the respondents agreed that their institutions carried out situational analysis regularly. It was also noted that 14% (43) of them said this was not happening. This meant that the institutional players in the TVET sector understood the need for situational analysis to help them study the environment in which they delivering their plans. This process was also essential for the managements to develop a common reference point for setting and reviewing institutional processes and priorities.

Through situational analysis, organizations are able to have a basis to understand the various business environments they are operating. The analysis can further provide common reference point for planning and delivering on their priorities. Generally, situational analysis enables organizations to stay more focused when it comes to initiatives, plans, and strategies for adding value to the organization. Through situational analysis, institutions are also in a better position to understand their customers, products, services as they analyze business environments amidst ever increasing competition. Regarding how much the institutions' situational analysis was often dictated by market trends of skillsets in current employment environment, those interviewed said as indicated in the tabulation in 22 based on 5-point Likert scale.

Table 4.17***Institution's Situational Analysis and Market Trends***

Situational analysis & market trends	Frequency (n)	Percentage (%)
Strongly disagree	0	0
Disagree	11	4
Not sure	86	29
Agree	178	59
Strongly agree	26	9
Total	301	100

As shown in table 4.17, 4% (11) disagreed that their colleges were conducting situational analysis on a regular basis, 29% (86) said they were unsure, while 68% (204) agreed with this account. Cumulatively, 68% agreed that the institutions practiced regular situational analysis. Hence this implied that majority of the TVET players understood the need to frequently undertake critical governance steps and processes necessary for institutional growth and development. While justifying their reasons for backing regular situational analysis in their colleges, it emerged that this process boosted the TVETs' chances of keeping up with the pace in the ever-changing job market terrain where new skills are increasingly needed. Also, regular undertaking of situational analysis helped the TVETs to manage rising challenges in terms of matching the skills provided to the students with emerging new unique job openings in different subsectors of the economy. These explanations were summarized by DAA002 in the following manner:

Situational analysis is essential to us in the TVET fraternity since it helps a lot in future planning in terms of upgrading the courses to offer and sourcing of adequate number of tutors with the needed requisite qualifications. As long as the government develops the right curriculum, we are supposed to do everything we can to impart skills aimed at solving the problems in the market. Therefore, we as an institution should not wait for the market to influence much of our analysis, but must be proactive in all our processes and systems. Hands on skills are currently in high demand and so that is what the market absorbs. Students identify with the skillsets that are in the market demand, and every year we do market analysis to get to know the kind of skillset the market needs and we adjust our training accordingly. You must be aware that in the current dispensation if one's skills do not match the current market demand, then you cannot have a job as soon as you would have wanted to.

In this sense, regular situational analysis acts as a pointer to what the market requires based on the understanding that employers are always looking for skilled people who can help to turn around their businesses without having to spend too much resources to impart on-the-job training skills and knowledge to new employees. It was also established that some of the TVETs carry out annual market reviews to understand the predominating economic activities requiring certain skills and in order to get a sense of direction on where to concentrate in their training and skills development. Furthermore, regular situational analysis enables the TVET management to understand the environment to adjust accordingly so as to cope with the market demands since the market trends of skills set is essential in defining who gets employed the quickest possible.

Apart from conducting regular situational analysis by the TVETs, it was also imperative to get the TVET managements' opinion regarding factors that were likely to influence or dictate this process. Within the scope of this study, these factors included financial availability or strengths in a given institute, level of competitiveness of the courses being offered, availability of other non-monetary resources such as the right skilled teaching manpower, labs, and lecture halls or related facilities. Regarding the role of financial availability in influencing institutional situational analysis process, table 18 provides summary of these response.

Table 4.18***Institution's Situational Analysis and Financial Availability***

Situational analysis & financial availability	Frequency (n)	Percentage (%)
Strongly disagree	21	7
Disagree	49	16
Not sure	88	29
Agree	116	39
Strongly agree	27	9
Total	301	100

The findings in table 4.18 show that in a 5-point Likert scale, 23% (70) of the respondents disagreed that financial resources determined or influenced situational analysis process by TVET establishments while 29% (88) of them said they were unsure. Conversely, 48% (143) of the respondents agreed with that account. Altogether, 48% of the respondents thought that availability of money was critical in implementing of situational analysis within the TVET sector. These statistics may imply lack of finances may not necessarily hinder TVETs from carrying out situational analysis as an important process for determining an institution's progress and reorganization of its priorities to effectively meet its organizational short and long-term goals and objectives.

To some of the respondents who supported the need for financial resources for implementation of situational analysis in the TVET sector, they opined that money must be needed for virtually everything for the growth and performance of any institution. For instance, in the case of TVETs, money must be spent on data collection when it comes to doing market surveys to understand the

trends that could further inform the kind of courses to be prioritized based on the new emerging job opportunities in the employment market. Similarly, other key organizational departments must require financial allocations for them to function well since situational analysis is not usually done in isolation. Financial resources were also needed for miscellaneous activities during the situational analysis, such as buying stationery and snacks during planning meetings for the actual process.

On the contrary, to some of the respondents who expressed contrary opinions regarding the influence of financial resources on institutional situational analysis in the TVET sector indicated that this point was debatable. For instance, in the case of the public TVETs which receive some funding from the government, it means that if they were to entirely wait for release of money by the government for them to carry out situational analysis, then they may have to always lag behind since financial delays from the government is almost the norm. There were also suggestions that people can always brainstorm and discuss about areas to be analyzed without necessarily requiring money for facilitation of formal meetings. Overall, there was a near 50-50 agreement/disagreement that availability of financial resources often influenced situational analysis in TVET institutions.

The above views were largely a reflection of a number of previous studies reviewed in chapter two of the current research. For instance, in a study by Geleto (2017) carried out in Ethiopia, it was established that different institutions and processes largely supported the idea of regular curriculum review despite lack of sufficient resources for the regular and comprehensive reviews. Further, like in the current study, this previous research revealed that in most countries in SSA, there were no dependable infrastructures and systems for coordinating curriculum reviews in the

TVET sector as there sometimes tended to be disjointed relationships among key stakeholders in the sector. The research by Geleto (2017) in Ethiopia to evaluate the impact of curriculum review with regard to how the learners were prepared for employment in the country noted that the process was undertaken amidst several challenges. The findings showed that there were several stakeholders in the industry that lacked the capacity to undertake the reviews on regular basis whereby this negatively impacted the employment sector. Failure to constantly match existing work opportunities with the right skills created a gap that ended up hurting individuals' careers. It was also noted that the challenges faced in the TVET sector in Ethiopia were similar to those experienced in some of the developed countries, such as Australia and the Philippines. However, Ethiopia had adopted a different review approach from that of the developed countries through decentralization of the reviews where the focus is on each institution dependent on their respective unique circumstances

As much as every TVET institutions wants to thrive in the market, especially with regard to private entities driven by profits as opposed to posterity, there were strong indications that there were existing mechanisms for the government to assess courses before they were finally taught. Yet, failure by the government to continuously closely monitor teaching and training progress of individual TVET colleges gave some of the colleges the leeway to engage in malpractices, such as exam leakages. Such professional misconducts ended up crowding the job market with TVET graduates that did not have the best of skills. The above views were largely a reflection of a number of previous studies reviewed in chapter two of the current research. For instance, in a study by Geleto (2017) carried out in Ethiopia, it was established that different institutions and processes largely supported the idea of regular curriculum review despite lack of sufficient resources for the regular and comprehensive reviews. Further, like in the current study, this

previous research revealed that in most countries in SSA, there were no dependable infrastructures and systems for coordinating curriculum reviews in the TVET sector as there sometimes tended to be disjointed relationships among key stakeholders in the sector.

Concerning the influence of competitiveness of courses on situational analysis, the respondents' opinions were also sought based on 5-point Likert scale, as demonstrated in table 4.19.

Table 4.19

Institution's Situational Analysis and Competitiveness of Courses

Situational analysis & competitiveness of courses	Frequency (n)	Percentage (%)
Strongly disagree	17	6
Disagree	30	10
Not sure	65	22
Agree	160	53
Strongly agree	29	10
Total	301	100

As shown in table 4.19, 16% (47) disagreed that situational analysis in TVETs was influenced by competitiveness of courses, or lack of it. It was also noted that 22% (65) were unsure, while 63% (189) agreed with this account. Overall, 63% agreed that competitiveness of courses had influence on situational analysis. As an important process for helping education institutions to determine their operating environment with the aim of adjusting performance measures and targets, the respondents in this study appeared to validate the claim that situational analysis is an essential process for TVETs. However, it was evident that situational analysis was influenced by, among other factors, the competitive nature of the courses on offer vis-à-vis the existing job

market situation. Similarly, those who concurred with the view that competitiveness of courses was an important element when it came to situational analysis opined that relevance of skills in the job market must form the basis for situational analysis processes. As HOD004 observed:

The government plays a central role when it comes to determining and regulating courses in the TVET sector. However, some of the courses become more competitive than others because of the skills needed by employers especially in the technical fields. Hence, we cannot train students on outdated causes that have no place in the market. The more the market absorbs trainees from a particular course the more its demand becomes competitiveness and hence forcing the TVET institutions to absorb more students in those courses. As a matter of fact, majority of the technical courses we offer at the moment attract more employers. Highly competitive courses call for good preparation and readiness on the part of the institutions as we at all times try to allow our courses to be market demand-driven. Our students must also fight for the limited employment space that can only be achieved once courses become competitive.

The emphasis on the need for TVETs to offer competitive courses is a common practice from the government. Yet, as demonstrated in this study and other previous studies (Geleto, 2017; Ngugi, 2019) some of the TVET institutions took advantage of the government's lack of elaborate and effective monitoring and evaluation capacity to offer courses not strictly sanctioned by the government. Notably, there were some private colleges that tended to offer courses they were not authorized by the government regulatory bodies to offer. Although there were strong confirmations by this study and others that technical courses needed a lot of preparations for the institutions to initiate and train, it was also not lost to the researcher that not all the TVETs could manage to carry out regular reviews. In such cases, as noted by Geleto (2017) following such a scenario, the emphasis on the need for TVETs to offer competitive courses is a common practice from the government. Yet, as demonstrated in this study and other previous studies (Geleto, 2017; Ngugi, 2019) some of the TVET institutions took advantage of the government's lack of elaborate and effective monitoring and evaluation capacity to offer courses not strictly

sanctioned by the government. Notably, there were some private colleges that tended to offer courses they were not authorized by the government regulatory bodies to offer.

The study also established that availability of nonmonetary educational resources significantly influenced in situational analysis in TVET institutions. In a 5-point Likert scale for measuring opinions of the respondents, these findings are presented in table 4.20.

Table 4.20

Institution’s Situational Analysis and Availability of Educational Resources

Situational analysis & Resources availability	Frequency (n)	Percentage (%)
Strongly disagree	10	3
Disagree	5	2
Not sure	4	1
Agree	189	63
Strongly agree	93	31
Total	301	100

As illustrated in table 4.20, 5% (15) and 1% (4) of the respondents disagreed and had neutral views, respectively about whether educational resources influenced situational analysis in the TVET sector. Cumulatively, 94% concurred on the opinion that educational resources played a significant role when it came to situational analysis in TVET institutions. Educational resources entail instructional items, such as workshops, seminars, and case studies among others, which are usually important in the whole process of capacity building of the tutors. Other educational resources included collaboration elements, such as online teaching and meeting forums, as well as chatting platforms which made it easier for learning, sharing information between trainers and students, and even enhance distance learning engagements. Also, there is the category of practice

objects, including simulations, different software for easier learning, online labs, and research objects, among others.

Although in their explanations the respondents observed that educational resources were generally inadequate in majority of the TVET institutions, their influence on situational analysis was evident. Educational resources enable the institutions to provide high quality training and skills to the TVET students in resonance with the prevailing employment market situation. Research conducted by Oluoch (2019) in Kenya on the influence of sustainable curriculum review on skills development for TVET graduates in the textile industry showed that the country was likely to face several challenges in imparting of skills to the young people entering into the job market. The government had the role and responsibility of putting in place effective mechanisms for enabling TVETs to carry out reviews as regularly as possible based on emerging needs in the labour sector. Yet, this may be hampered by lack of effective systems and structures as a result of inadequate budgetary allocations. Despite these challenges, the best option for the TVET sector remained to put in place dependable structures for ensuring that the sector avoided the tendency of overstay with old learning programmes which could prevent them from achieving the most relevant skills in good time.

In the current research, the importance of educational resources in TVET institutions was aptly directly expressed by P020 as follows:

When an institution has effective information sharing mechanisms, it helps the management to easily link different operational departments, and this even makes it easier for the academic staff to relate with their students. Regular review of the status of educational resources therefore becomes critical when it comes to imparting the right skills and knowledge in students. It is also not possible for the learning to go well without the right channels for sharing knowledge between the tutors and students. Generally speaking, institutions without relevant educational

resources can directly affect the enrollment rates since former and even current learners occupied a very important position selling and popularizing name of institutions to prospective students. Hence, it is rare that we will get referrals by our students if we are not offering the best; which is determined a lot by what we offer and how disseminate our teaching programmes.

Through evaluation of educational resources, TVETs are able to understand how to adjust their operations depending on the students being enrolled in the system. Lack of adequate educational resources can be very challenging to TVET institutions in relation to offering practicals to students. In a general sense, availability of educational resources greatly defines the current and future standing of an institution.

As demonstrated in this study, situational analysis is an essential component of strategy review. Similar views have been reflected by previous studies conducted in different study environments. For instance, Dagnino et al. (2017) observed that situational analysis and needs assessment are critical considerations at the initial phases of curriculum development or review since this gives a clear picture to the reviewers and the top management of the organization about how things look like and how they can be improved depending on different dynamics. At the same time, Mui et al. (2018) established that situational analysis can be seen as a diagnosis of organizational needs which facilitates examining of prevailing factors in an environment where the curriculum is going to be implemented.

As noted in other studies however, this research established that a number of TVET institutions lacked the capacity to carry out comprehensive situational analysis. In a cross-sectional study carried out by UNESCO (2021) on the situational analysis of TVET in ten member countries of the SADC, it was revealed that majority of the countries did not have the capacity to initiate research activities for effective curriculum evaluation and development. These countries'

capacity was constrained due to poor training of tutors, scarce budgetary allocations, as well as inadequate undertaking of empirical inquiry. Despite some of the SADC countries such as Malawi, Zambia, and Mauritius having made it a priority to undertake research on policies on TVET, according to Anwar and Hasnu (2013), they were still unable to initiate regular and comprehensive strategy reviews for a more robust teaching and training of TVET graduates. This denied their graduates adequate employability chances in the job market for lack of the right skills. To address the limited research gaps, the affected countries had resorted to collaborative research efforts with universities and other institutions of higher learning. These sentiments were also expressed in this study, with a strong indication that public TVET institutions were aggressively engaging external partners, such as World Bank, AFDB and JICA among others, especially for funding of their training programmes to suit the current job market.

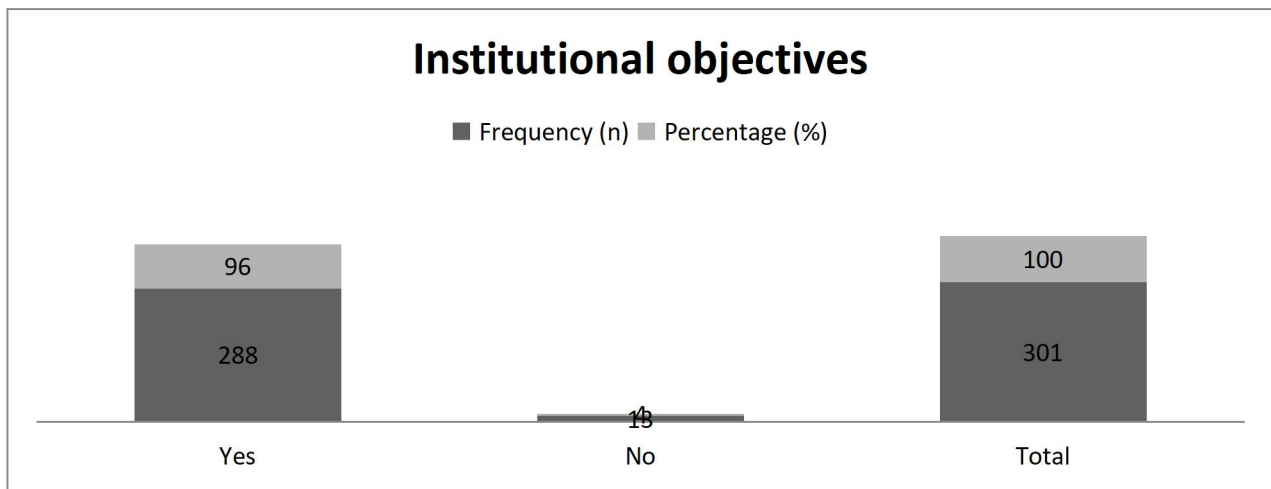
Similarly, in agreement with the findings of this study, Kithae et al. (2017) revealed that TVET policies should as much as possible be aligned to the current job demands, while at the same time allowing involvement of the private sector through various platforms and partnerships for effective implementation of labour market-driven training programmes. Yet, a survey by KISE noted that very few institutions offer specialized support to students with special needs (KISE, 2019). These views were also captured in this study, with the revelations that many TVET institutions lacked the capacity to offer the best to their students.

4.4.2 Influence of Institutional Objectives in TVET Institutions on Graduate Employability

Another important aspect of strategy review revolves around the question of institutional objectives, goals and aspirations. Figure 4.8 presents a summary of responses on institutional objectives' influence of strategy review.

Figure 4.8

Clear Institutional Objectives



As shown in figure 4.8, 96% (288) agreed that their respective TVETs had clear institutional objectives, against 4% (13) of them who answered no to this proposition. The statistics can also mean that the TVET establishments are clear in their objectives as they aspire to offer relevant courses to the student fraternity. However, besides having institutional objectives, it was important for these to be relevant in enhancing employability of students when they finally entered the job market. Relevant institutional objectives meant that the organizations did not end up wasting resources on things that did not actually add value to their short and long-term objectives and goals. However, institutions without clearly set institutional objectives ended up mixing up things, thus failing in their objectives in the process.

Research participants were also required to state how relevant they thought those objectives were when it came to enhancing employability of TVET graduates. These respondents are summarized in table 4.21.

Table 4.21

Relevance of Institutional Objectives and Enhancing Students' Employability

Relevance of institutional objectives	Frequency (n)	Percentage (%)
Strongly disagree	4	1
Disagree	11	4
Not sure	60	20
Agree	142	47
Strongly agree	84	28
Total	301	100

As noted in table 4.21, 5% (15) of the respondents disagreed that their institutional objectives were relevant in enhancing employability of students after completion of their studies and ventured into searching for a job. At the same time, 20% (60) had neutral views, while 75% (226) agreed of respondents agreed with this account. From the trend of these statistics, overall 75% indicated that the TVET managements of respective institutions put a lot emphasis on reviewing of their objectives as an important step towards improving employability of their graduates. It was on such basis that Mackatiani and Ejore (2023) decided to trace the history of policy development in the TVET sector since the 19th century to understand existing gaps in the industry over time. In their research, Mackatiani and Ejore (2023) revealed that in Africa the policy on technical and vocational training education has evolved over a very long time. Yet, the

TVET sector has not been growing with the right pace to accommodate the fast-changing employment scenes.

Paying close attention to the mission and vision of an organization is very important for the organization always remain on track in all its activities. In this sense, as summarized in table 4.22, there were different levels of agreement among the respondents regarding proposition that their institution’s mission/vision is geared towards instilling employability skills in students. These responses are illustrated in table 4.22 based on 5-point Likert scale.

Table 4.22

Institution’s Mission/Vision in Enhancing Students’ Employability Skills

Institution’s mission/vision & employability skills	Frequency (n)	Percentage (%)
Strongly disagree	11	4
Disagree	6	2
Neutral	21	7
Agree	159	53
Strongly agree	104	35
Total	301	100

Statistics in table 4.22 show that 6% (17) of the interviewees in the study disagreed that institutional mission and vision influence or is geared towards imparting employability skills in students. Furthermore, 7% (21) of the respondents expressed neutral views, neither agreeing of disagreeing with this statement. It was also evident that 88% (263) indicated that their institutions were inspired by institutional mission and/vision in imparting employability among

TVET graduates. The statistical distribution in table 22 appeared to resonate well with existing studies which attribute corporate success to institutional mission and vision.

According to Ahmed (2019), a good mission and vision are beneficial in communicating the direction of an organization, enabling the day-to-day operations decision making, keep the organization to remain focused, and motivate employees. In this sense, a mission statement provides the framework for assessing the progress or success of an organization. In the case of TVET sector and enhancing employability of its graduates, mission and vision of an institution play a central role in helping the managements to understand if they are on the right track and if they are making the right decisions devoid of distractions. Adherence to mission statement will often tend to remind the management of the current and future milestones, such as constantly trying to align TVET graduates' skills with the employment demands in different subsectors of the economy.

While demonstrating the influence of an institution's mission/vision on imparting of employability skills on TVET graduates, the respondents further explained that a mission statement helps to create dedication and team work among all stakeholders in an organization, this leading to higher chances of success. These sentiments were directly expressed by HOD031 as follows:

Going by our mission, we are determined to ensure that our students receive the best skills that we can offer to enhance their chances of employment when they finally hit the employment market. Indeed, our mission and vision give us the foundation to train and equip all employees with the right skills so that they can easily access decent work in their respective careers. Our mission also dictates thorough training for our graduates to gain competitive advantage in the job market. Teaching with no vision is like having no direction for your students. Our vision is to train highly skilled students and make them have the right attitude that can help them to easily fit in the job market. You also realize that core values are very important to give face to

the graduate that makes them employable. Vision gives the learners and tutors direction and ambition to work hard, with the ultimate outcome of training game changers in different fields of the economy.

A company’s core values reflect what all employees in the organization believe in and stand for as shared responsibility and accountability within their work environment. Table 4.23 provides a summary of responses on the relationship between core values and enhancing of employability of TVET graduates.

Table 4.23

Institution’s Core Values in Enhancing Students’ Employability Skills

Institution’s core values & employability skills	Frequency (n)	Percentage (%)
Strongly disagree	6	2
Disagree	9	3
Neutral	22	7
Agree	135	45
Strongly agree	129	43
Total	301	100

The findings in table 4.23 show that 5% (15) and 7% (22) of the respondents disagreed and held neutral views respectively regarding whether a TVET institution’s core values influenced strategy review as an important step or process to enhance employability skills of TVET graduates. Further, 88% (264) concurred with this account in that order. Overall, 88% concurred with the opinion that core values influenced enhancing of student’ employability through strategy review.

In the highly competitive and dynamic global work environment where virtually every economic requires employees who are best qualified to make a difference in terms of enhanced profitability and cutting on losses, the discussion on employability of TVET institutions becomes inevitable. Ogwengo and Osano (2017) noted that several companies in the world are increasingly recruiting people across the world from diverse cultural backgrounds and social orientations. Despite these cultural and social diversities, the consensus seems to be competence and the right skillsets. Creating harmonious working environment under such circumstances requires high level of tolerance and being considerate based on different individual or group dynamics. Shimizu (2017) further emphasized valuing of diversity and social differences at the work place, but at the same time stressed that the common element in all current and prospective employees must be the essential employability skills in the job market today.

The new paradigm shifts in employment where employers care more about skills of the employees as opposed to their social or cultural orientations therefore places very high premiums on the kinds of skills to be expected from training colleges. In the sense, the most pertinent question may therefore be the extent to which TVET graduates from different institutions across the world are equipped to meet employment requirements. As Kitonga et al. (2016) noted, the very high competition in the private corporate sector and the increasing need for a more responsive public service have equally necessitated the need for employees to have good negotiation skills for achieving win-win outcomes for their employers. Although negotiation skills may not be a preserve of TVET graduates, as an important employability quality, it would be important to understand the extent to which negotiation skills contribute to TVET graduates' employability

In 2015, the UNESCO approved a strategic blueprint for 2016-2021 for the TVET education subsector which aimed to support its Member Countries in enhancing application and proficiency related to respective TVET systems in order to effectively impart needed skills to the learners. Malle (2016) noted that the UNESCO strategy blueprint aimed to equip young learners and prospective entrants into the job market with long-term entrepreneurial employability skills which would be very critical in propelling individuals towards helping their countries to achieve the Vision 2030 economic development agenda. In the current study, 88% of the respondents expressed their support for institutional efforts to instill core values as one of the most important steps towards enhancing employability skills in students. These sentiments are in line with the UNESCO's initiatives and efforts to progressively support its Member Countries to design and implement cross-cutting interventional programs for imparting the best and most relevant skills in students as they look forward to join the employment sector.

It is expected that in a work environment where core values are strictly followed, all important decisions should be aligned with at least one of those core values. As new challenges emerge, core values help managers to make good decisions on their own, but with the hope that those decisions will be for the general good of the organization. The respondents also opined that on the part of the students, TVETs' institutional core values tend to inspire them to become more morally upright individuals as they learn relevant skills needed in the job market. These sentiments were directly summarized by a registrar (R006) as follows:

Core values attract and retain students while at the same time motivating them to work smart and hard. Our core values describe hardwork and commitment to whatever we teach. The market cannot attract people of irresponsible character with no good moral standing in value. Core values define the kind of a person an employer aspires to be. As already explained above, core amongst these values is

being God fearing, committed, and a team player. Here we try to ensure that students align to the core values.

The above sentiments resonate with findings by other previous studies. According to Ifeyinwa and Serumu (2016), TVET institutions should strive to aim for the best in all their graduates in terms of employability regardless of which country or employment sector they are seeking jobs from. Kisilu (2016) argued that it was on this basis that UNESCO and other key stakeholders in training for the labour market have been in the forefront in championing for better TVET policies and programmes which can harmonize qualifications across various countries. TVETs' ultimate aim of strategy review should be informed by the wider social development agenda based on attainment of inclusive and equitable learning outcomes for all learners according to their aspirations. However, as important as it may be in the overall societal transformation, the youth agenda has not been clearly streamlined regarding elaborate sustainable employability skills. As also noted in our current study, despite existing government policies on TVET in Kenya, some of the institutions' efforts may be constrained by respective institutional objectives and curriculum implementation strategies, among other issues (Kisilu, 2016).

Quality of training and education for TVET students is at the core of the processes of producing competent employees into the market. Yet, due to a number of shortcomings in the TVET sector, the industry is not able to constantly come up with innovative ways of matching training and skills provided to TVET graduates with the emerging employment sector demands. Some of the commonly cited challenges revolve around lack or inadequate financial resources which are always at the center of strategy review. In a 5-point Likert scale, the research aimed to understand how individuals involved in the study rated quality of training of students in their respective institution. Table 4.24 presents the outcomes on the rating of quality of training.

Table 4.24***Rating Quality of Training of Students in TVET Institutions***

Quality of training of students	Frequency (n)	Percentage (%)
Very low quality	2	1
Low quality	6	2
Moderate quality	22	7
High quality	98	33
Very high quality	173	57
Total	301	100

As indicated on table 4.24, 3% (8) had the view that quality of training was of low quality, 7% (22) moderate, 90% (272) of them thought the quality of training was high. From the statistical distribution above, 90% of the respondents had the view that TVETs' training was of high quality and/or very high quality. Despite the overwhelming affirmation of the quality of training by TVETs, the 10% indifferent and/or contrasting views imply that there is still room for improvement. However, in a general sense, a greater percentage of the respondents had confidence in TVETs' quality of training of students, which then increased their chances of employment. To further validate this view, one of the registrars (R027) interviewed had the following to say:

We usually offer quality training in our college, and this can be attested by good number of graduates we release to the employment market annually with some of them landing very good employment opportunities in various sectors of the economy. The excellent performance recorded annually in both internal and external examinations tells you that the quality of training of our students is commendable. The more our graduates shine in their different career paths out there, the more we are convinced that we are offering them the best quality of training. In our departmental consultations, we all agree to compete in giving the best to students;

we have good resources and we combine training and industrial attachment on 50-50 basis.

The need to undertake strategy review was also encouraged by the kind of feedback TVETs managements were receiving regarding how their graduates excelled in the job market. Furthermore, other TVET institutions took a lot of pride in their highly qualified doctorate and master's degree holder's tutors they had in their various fields of specialization. It further emerged that TVETs' management was generally keen on ensuring high quality training, encouraged by the referrals they often received from employers.

Previous studies related to Africa and other developing countries in general showed that there is relatively big a percentage of skilled yet unemployed people. According to Ngugi (2019) and Ajithkumar (2017), such a scenario can be addressed through more rigorous and focused training in the TVET sector. In this sense, TVET will play a major role in preparing graduates for self-employment. This move can also help to address the problem of declining opportunities in the formal employment sector while at the same time enabling economies in the region to avoid overdependence on salaried jobs. Despite the important place of TVET in improving the informal job sector through robust knowledge as well as other capabilities among several people in the region graduating from high schools, like Gachunga et al. (2020a) noted, the findings of the current research revealed that many developing countries including Kenya, have not fully embraced as a priority. The current and previous findings further confirmed that lack of more attractive programs could be one of the major contributors to this scenario. Hence, there is need for regular strategy review in order to keep up with the ever-evolving human resource needs in the job market.

The current study further sought to understand the relationship between entrepreneurial culture and the prospects for better employment among TVET graduates. Entrepreneurial culture has been defined as habits, values, beliefs, attitudes and behavior of individuals that can either facilitate or hinder them from achieving their aspirations as entrepreneurs or employees. As summarized in table 4.25, the institutions practiced entrepreneurial culture to inspire students for better employment prospects.

Table 4.25

Institution’s Practice of Entrepreneurial Culture to Inspire Students

Institution’s entrepreneurial culture	Frequency (n)	Percentage (%)
Strongly disagree	4	1
Disagree	4	1
Not sure	78	26
Agree	141	47
Strongly agree	74	25
Total	301	100

As shown above, 2% (8) disagreed that their institutions practiced entrepreneurial culture to inspire students for better employment prospects. Also, 26% (78) neither agreed nor disagreed, while 72% (215) of them agreed with this view. Altogether, 72% were of the view that their institutions practiced entrepreneurial culture as a way of inspiring students for better employment prospects. These findings may imply that TVET institutions widely instilled innovative business minds in their students with the hope of exceling in the employment market. The idea behind these practices was to prepare the students to embrace the spirit of self-employment once they completed their studies. Entrepreneurial culture also inspired students based on real experiences

and examples. To capture these views more aptly, one of the deputy principals (DP005) explained thus:

We encourage mock trade in our courses that prepare students to trade when in the field. We also have classes on entrepreneurial skills. We organize trade and entrepreneurial days to help students have or develop the culture. Entrepreneurship training is done to all students regardless of their courses of specialization. TVET is about handwork skills, doing business with another and so we emphasize a lot in entrepreneurial culture at school. We encourage entrepreneurship and in that effect conduct entrepreneurial lessons to all students. We have products expo programs in the institution where sells are encouraged, and this gives us a sense of the kind of expertise to impart in our students. Sometimes we pay our graduates to offer technical expertise to our clients as a way of giving them a platform to interact with the actual business environment. We are however limited by inadequate resources.

Institutional objectives in the TVET sector remains at the core of the sector's development and performance. These views were dominant in this study, just as has been previously expressed in other studies done in Kenya and elsewhere. In a previous study by Mumbe (2020) employability skills among TVET students in Kilifi County, it was revealed that there were several dynamics related to the students' attainment of the right skills in TVETs. Key to note was the fact that courses offered in a TVET institution influenced students' gaining of employability abilities. Findings also showed that although most of the colleges taught the right courses, some of them needed further restructuring. The situation led to disinterest in the training and subsequently caused low enrollment.

The study by Mumbe (2020) resonated with an earlier study by Anindo (2016) conducted on Nairobi TVET colleges. According to Anindo (2016), despite the TVET teachers having the prerequisite academic credentials to teach in various TVET subjects, they lacked professional development programs to elevate their skills based on the evolving job market demands to be able to transfer the same to their students. As also reflected in our current research, such

institutions lacked enough modern training equipment for preparing students by imparting them with relevant skills for their prospective employability. In the absence of properly equipped workshops, teachers mostly relied on delivering lectures to students, and this significantly limited the kinds of content the students were imparted with.

Given the large size of classes against limited teaching and learning infrastructure, some of the TVET institutions were unable to meet the job expectations of their alumnae. The challenges pointed out by Mumbe (2020) and Anindo (2016) regarding TVET institutions in two different counties in Kenya within a difference of four years when the initial study was carried out speak to the issues government itself could be aware of. These sentiments also emerged in our study. According to TVETA Strategic Plan (2018-202), TVET institutions in Kenya are faced with limited financial resources which negatively affected implementation of their planned programs (TVETA, 2018). The government also acknowledged inadequate training equipment and facilities as well as insufficient number of tutors which hampered quality service delivery. At the same time, Anwar and Hasnu (2013) a number of TVET establishments were struggling with limited physical infrastructure, such as classrooms and space for workshops to accommodate the growing number of new registered students for the TVET programmes. So as for some of the institutions to bridge the gap of low number of tutors, managements were forced to hire part-time teachers or merge classes in order to try to complete the syllabuses on time. However, such a scenario did not guarantee quality teaching. These sentiments were echoed by Norton (2018) who noted that a number of institutions in most developing countries lacked the right training capacity and well-equipped systems for producing the right skilled graduates to the job market.

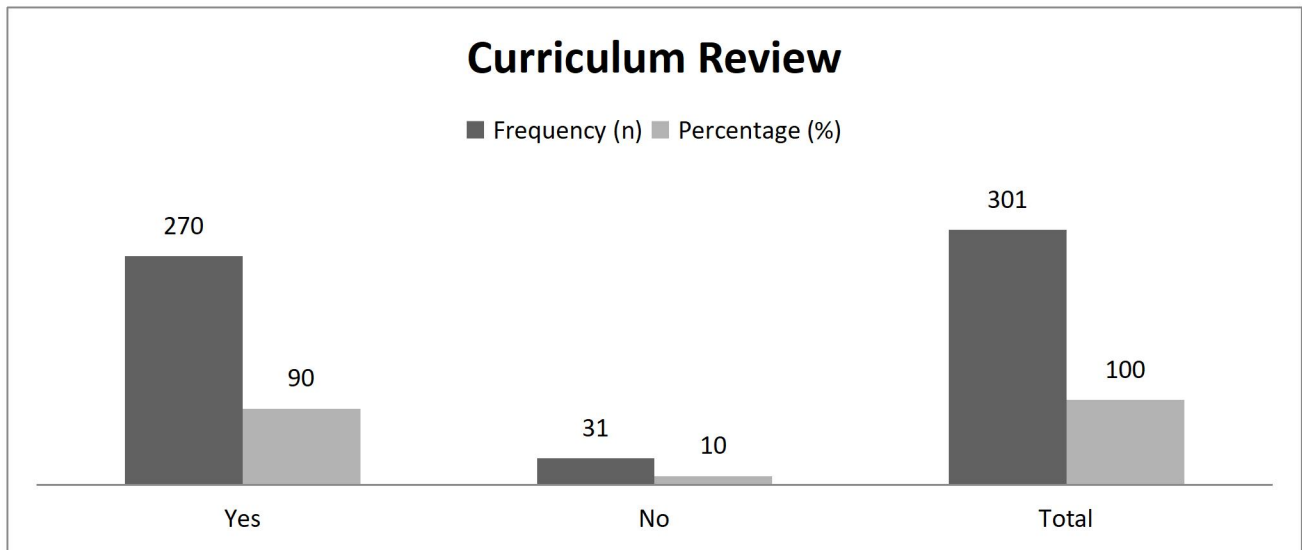
Another earlier research by Nugraha et al. (2020) acknowledged the necessity of employability skills by all TVET graduates as a result of changing and expanding job market where employers are sourcing labour from across the globe. Based on a review of literature related to different countries operating under different work environments, it was also noted that employability skills among TVET graduates must be viewed from wider social, economic and political contexts. In this sense, employability skills can be categorized differently based on specialization abilities as well as innovation acumen. Additionally, students with high employability skills should be able to demonstrate critical thinking and problem solving skills. All these reviews were reflected in our current study despite the fact that some of those previous researches were carried out some years back and in different study sites both in and outside Kenya.

4.4.3 Influence of Curriculum Implementation Strategies in TVET Institutions on Graduate Employability

There were varied responses related to the questions raised. Important to note is the fact that curriculum implementation forms that basis for any institution of middle level or higher learning to offer the right training to students. Curriculum implementation strategies must then be viewed from a holistic manner, including curriculum contents, resources available for dissemination of the information to learners, skilled teaching manpower, and the manner in which the content is given out to the learners, among other considerations. The first question to the respondents regarded whether different institutions carried out regular curriculum review. This would signal the general seriousness with which different institutions regarded the whole concept of curriculum implementation as an important strategy review process. The respondents provided the responses as illustrated in figure 4.9.

Figure 4.9

Institution's Regular Curriculum Review



As shown in figure 4.9, 90% (270) indicated that there were regular reviews whereas the remaining thought otherwise. In Germany, TVET training is an essential component in capacity building of the young people for the country's employment and socioeconomic expansion (Cedefop, 2020). This kind of training progressively helps the country to transform its economy by releasing into the market very highly trained professionals with various skills in different fields (Ball, 2019). Combining of public and private funding has created and maintained a strong and sustainable financial support to the student fraternity, thereby helping to meet school fees needs even for learners who are financially disadvantaged (Federal Institute for Vocational Education and Training, 2014). Effectively established VET research, such as the Institute for VET, significantly helps in enhancing institutional innovation support capacity and general curriculum development and maintenance in the Germany VET system. However, the German VET system faces many sectoral as well as occupational structural dynamics associated with the labour market. Guellali et al. (2017) observes that the rising skills requirements and educational expansion dynamics which have greatly increased the number of high school leavers eligible for

tertiary education tend to seriously strain VET colleges in Germany (Cedefop, 2020). Furthermore, despite Germany having many pathways for VET tertiary education to encourage learners in different fields of specialization, the absorption rate in VET colleges still remains not very satisfactory (Hippach-Schneider et al., 2007).

According to Mackatiani and Ejore (2023), the policy on technical and vocational training education has evolved over a very long time, which is said to be traced back to the 19th century. It is said to have started as a form of education meant for Africans during that time where the indigenous communities were expected to receive vocational and industrial education due to their lack of capacity to pursue any other form of education rather than manual skills. However, it is evident that over time a lot has changed, with so many different courses being launched to cater for the ever merging new job demands. The TVET sector has not been growing with the right pace to accommodate the fast-changing employment scene. Although education review of Brazilian TVET sector has persisted for sometimes where tangible results have been documented, not all the individuals who go through the system have the opportunity to effectively showcase obtained skills (Pilz, 2016). On the other hand, the TVET reforms in Brazil are critical in ensuring that majority of the young people have the opportunity to obtain the right skills for the technical work which is very essential in the whole question of the country's development (Ajithkumar, 2017).

In Australia, according to UNESCO (2022), the country has a fairly well developed vocational training system, with a high sense of public confidence on policy and implementation plans. Some of the strengths of the system include strong shareholder engagements, with an elaborate qualification system and a flexible entry process based on local circumstances. In Kenya, TVET

CDACC Strategic Plan (2021-2025) provides a roadmap on how the TVET institutions should develop curriculums for students as dictated by different dynamics in the world in terms of skills sets (Technical and Vocational Education and Training Curriculum Development, Assessment and Certification Council [TVET CDACC], 2021). All new entrants into the job market are required to obtain knowledge and skills that are aligned to their personal career pathways. As also indicated in the TVETA guidelines, the mandate of TVET CDACC is to ensure that there are regular updates of the courses being offered by technical training institutions in the country (TVETA, 2018). As noted in the 2018-2022 strategic plan for TVETA, Kenya is supposed to produce the best human resource skills into the job market if the country has progress as it ought to. In order for the TVETs in Kenya to have the capacity to offer the intended training in an effective manner, then there must be designing of relevant and regular review of programs according to emerging job market. However, there are indications that the TVET sector may be lacking the general capacity to satisfy the ever evolving needs of TVET graduates in terms of what the employers actually require.

Table 4.26

Institution's Regular Curriculum Review Meets Employability Objectives

Curriculum review meets employability objectives	Frequency (n)	Percentage (%)
Strongly disagree	4	1
Disagree	13	4
Not sure	52	17
Agree	183	61
Strongly agree	49	16
Total	301	100

As shown in table 4.26, 5% (17) of the respondents did not agree, 17% (52) neither agreed nor agreed, and 78% (232) concurred that institutional review was imperative in meeting the objectives of preparing the learners for future employment opportunities after they completed their education from TVET colleges. Notwithstanding the significant number (78%) of respondents who concurred that curriculum review helped to boost training of students in preparation for future employment in their relevant career fields, given that at least 17% of them were impartial in their responses may mean that this process does not necessarily absolutely contribute to effective imparting of skills in the graduates of TVETs.

Employability of TVET graduates has been a great concern in Kenya, especially against the enormous growth in the TVET learning and training sector in Kenya which has been on an upward trajectory since its inception in 2013. Statistics indicate the sector has witnessed tremendous institutional growth, from 753 TVET colleges with a student population of close to 148,009 in 2013 to the current 2,300 TVET institutions with a population of over 580,849 students enrolled in different colleges across the country (Kamer, 2022; Statista, 2022). Yet, there is no reliable data on employability of TVET graduates despite the continued expansion of the subsector. Earlier research by Nason (2019) on youth unemployment among graduates of tertiary institutions showed that despite TVET graduates' employability comparing better than other institutions of higher learning, more than 12% of TVET diploma graduates lacked employment opportunities. A study by Mbolonzi (2021) noted that many TVET institutions in Kenya have embraced technology to improve their training outcomes to subsequently enhance employability of the graduates. Table 4.27 provides summary of these findings.

Table 4.27***Institution's Quality of Curriculum Review***

Institution's quality of curriculum review	<i>1=very inadequate</i>	2=inadequate	3=Moderate	4=Adequate	5=Very adequate	<i>Total</i>
	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>	<i>(%)</i>
Applicable content	2	1	18	58	20	100
Practicals	4	5	27	44	20	100
Internships	1	6	41	41	11	100
Industry linkage	1	4	50	32	12	100
Evaluation programs	2	6	29	46	17	100
Richness of content	3	2	21	57	16	100
Relevance to the industry	1	4	44	37	13	100
Stakeholder involvement	4	14	47	19	16	100
Employment market	6	8	48	30	8	100
Mean	3	6	36	41	15	100

As noted in table 4.27 above, different propositions were used to examine the quality of curriculum review and how this impacted the overall preparation and imparting of the right skills among the graduates of TVETs. As shown based in the different domains in the table above, 3% (10) of the participants observed that the quality of curriculum review was below par. On the contrary, 78% (236) of the respondents were of the opinion that the review was done in the right

manner and of the right quality. The findings further indicated that 18% (56) of the respondents had neutral views regarding whether the quality of training was right or not. In terms of practicals, internships, and industrial linkages, 9% (25), 7% (23), and 5% (17), respectively opined that curriculum review was not adequately done. Moreover, 27% (82) of the respondents said that curriculum review was moderately done, 41% (124) of them had the same view regarding internships, and 50% (150) thought the same way about industrial linkages. Further, it emerged that there were varied responses regarding the same propositions, with 64% of the respondents agreeing, 52% (154) disagreeing, and 44% (133) strongly agreeing with the view that the review was adequately done.

Other variables that were used to define the respondents' position regarding quality of curriculum review entailed the assessment of programmes, content robustness, applicability of the programmes being offered, involvement level of the stakeholders, and the situation in the labour market. All these attracted the responses in the following order 8% (25), 3% (9), 8% (26), and 18% (60) curriculum review. The findings further indicated that 29% (87), 21% (63), 44% (133), 37% (141), and 48% (144) of the respondents held the opinion that curriculum review in TVETs was moderate in terms of meeting institutional objectives. For the respondents who thought the review was adequate, evaluation programs, richness of content, and relevance to the industry, stakeholder involvement, and employment market attracted 46% (139), 57% (173), 37% (112), 19% (57), and 30% (91) respectively. 113

Lastly, the findings showed that 17% (50) of the respondents agreed that curriculum review had the component of regular assessment of the programs, 16% (49) said the content was robust, 13% (40) indicated the programmes on offer were relevant to the employment industry, 16% (47)

said the stakeholders were adequately involved in the review, and 8% (25) of them finally indicated that the new programmes and subsequent reviews were informed by the way the employment market was evolving. This implied that curriculum review was done based on thorough research and therefore the exercise was always trying to respond to the emerging needs in terms of new skills needed. On average (mean), 11% (25) of the respondents thought that the quality of curriculum review was done in an inadequate manner, 48% (109) had the view that the review was moderately done in terms the quality, and 38% (167) indicated that the review was adequately done. Another research was carried out by Maina et al. (2017) to examine the influence of technological adaptation to curriculum development and review in the TVET sector. The study used a mixed method approach where both quantitative and qualitative data were used. The findings showed that the use of technology in curriculum review process made it easier for the stakeholders to get the desired results on time. Furthermore, it was noted that the TVET sector cannot meet its objectives without proactively reviewing its programmes in line with emerging market in the work employment industry. Whereas continued curriculum review is important in a s far as imparting new skills is concerned, this process must be carried out carefully in order to give value for money. Yet, several institutions may be hampered by lack of adequate financial resources for regular curriculum review.

Since several TVET institutions are unable to conduct curriculum reviews on a regular basis because of different challenges, it is hard to guarantee employers the right skills through TVET graduates. This scenario often creates knowledge and skills gap, thus leading to high unemployment rates as a result of failure by educational institutional stakeholders to match the graduates with the right skills (Mumbe, 2020). Furthermore, it was noted that more than 50% of

TVET colleges in Kenya lack the capacity to constantly update their training programs in accordance with evolving employment needs in the labour industry.

In concurrence with the findings of this research, the sentiments by Garba et al. (2020) were earlier reflected by Aloysius et al. (2018) in a research they conducted which showed that in Nigeria the government lacked the ability to closely monitor curriculum reviews in TVETs. Despite several TVET colleges having reviewed their curriculums and introduced several new courses over time, they lacked the capacity to keep up with the pace at which the job market was evolving especially with regard to technological skills and expertise. One of the outstanding challenges included lack of finances in the TVET sector and government's failure to allocate sufficient budget for monitoring and evaluation processes to ensure that the reviews were done accordingly.

The findings by Garba et al. (2020) were a reflection of Muhammad et al. (2019) who observed that failure to decentralize curriculum review in Nigerian TVET sector made it difficult for the institutions to regularly update themselves, thereby creating a gap in skills and knowledge acquisition for new jobseekers entering the market. The sentiments by Garba et al. (2020) were earlier reflected by Aloysius et al. (2018) in a research they conducted which showed that in Nigeria the government lacked the ability to closely monitor curriculum reviews in TVETs. Despite several TVET colleges having reviewed their curriculums and introduced several new courses over time, they lacked the capacity to keep up with the pace at which the job market was evolving especially with regard to technological skills and expertise. One of the outstanding challenges included lack of finances in the TVET sector and government's failure to allocate

sufficient budget for monitoring and evaluation processes to ensure that the reviews were done accordingly.

In India, Chandrasekar and Murugesan (2019) established that several TVETs did not always give the right skills to the learners due to lack of enough financial and specialized human resources as well as training facilities. In China, TVET graduates often find jobs after completion of their studies (UNESCO, 2018). The Chinese government has also established a policy framework for encouraging high schools, colleges and the Ministry of Education to work in partnership to promote vocational education and implement modern apprenticeship program where TVET graduates are able to obtain practical skills before their can join the job market. Despite high employment prospects by TVET graduates in China, IMFWEO (2018) noted that not many students are attracted to the TVET learning model due to the government's inability to implement major policy reforms that could make TVET attractive to young people and working professionals with the intent to further their professional skills.

Mathur et al. (2022) concurred with the previous study by Chandrasekar and Murugesan (2019) by emphasizing the growing importance of TVET in achieving Sustainable Development Goal 4, which underscores creation of the right environment for the learners to be sufficiently equipped with employability skills courtesy of the TVET learning model. Despite the significant strides that have been made in providing various sets of skills in India's employment sector through TVET education model, there were several limitations. The supply-demand gap for employees with practical skills is evident.

4.4.4 Influence of Operational Departmental Plans in TVET Institutions on Graduate Employability

Regarding operational departmental plans of TVET institutions on graduate employability, this objective attracted various responses. Departmental plans are essential in helping managers to prioritize activities and align them with the overall goals and objectives of an organization. The plans are also essential in setting standards for assessing performance of the organization. Within the context of strategy review of TVET institutions, operational departmental plans can enable the institution to understand the needs of students within the framework of relevant skills for the employment market (Ngugi, 2019).

According to Gachunga et al. (2020a), regular review of current departmental programs being offered by TVET institutions has the benefit of keeping the sector relevant to the job market. It is expected that such reviews will commonly point out existing gaps in skills and knowledge, thus pushing institutions to offer what best suits the employment market. Yet, more often than not, the TVET sector is hampered by lack of sufficient budgetary allocations to offer innovative courses to its graduates. There is also the question of outdated learning policies and curriculum for TVET programs across different neighboring countries, which makes it difficult for implementing a harmonized long term careers for students pursuing TVET courses (Abdullah et al., 2019).

On whether different institutions had independent departmental plans that were geared towards enhancing employability of TVET graduates, the respondents expressed their views as presented in figure 4.10.

Figure 4.10

Institution's Independent Departmental Plans

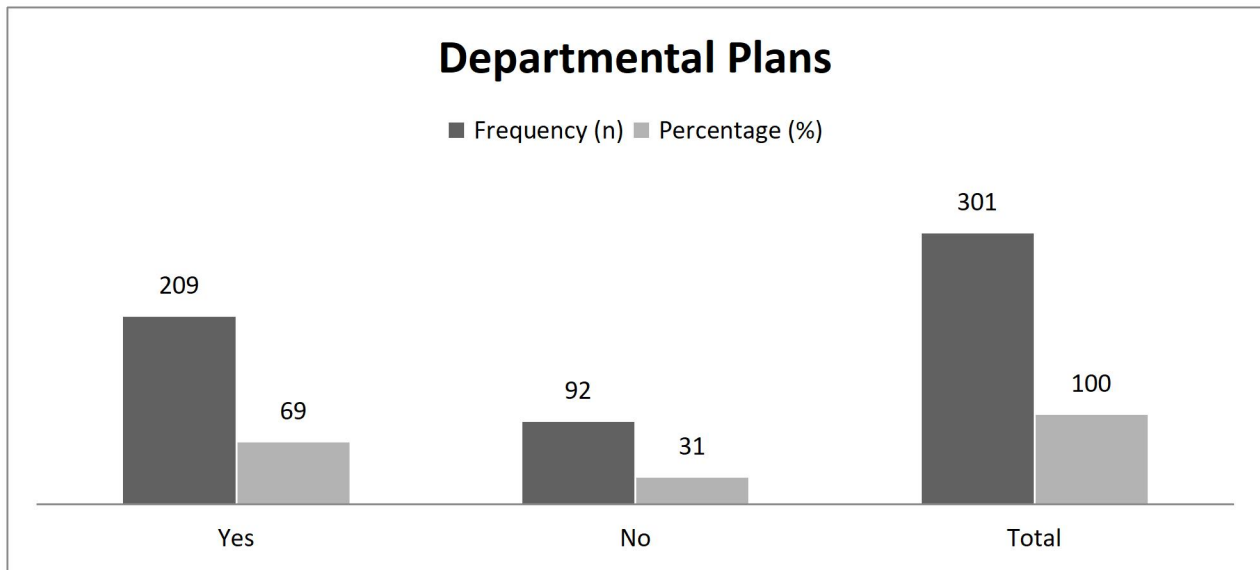


Figure 4.10 shows that 69% (209) of the TVET institutions had independent departmental plans, while 31% (92) of said they did not have. These statistics may be informed by the fact that a greater majority of the TVETs in Nairobi metropolitan counties which were involved in the study belonged to the private sector, with a number of them operating as consolidated businesses as opposed to elaborate institutions with distinct operational departments. The fact that more than 30% of these institutions operated as single blocs of business entities may imply that they were constrained in terms of innovative key decisions that could propel them to greater performance.

In a scale of 1-5 where 1 meant the least and 5 the highest rating, the respondents were asked to what extent they agreed that their institutional departmental plans were relevant to enhancing employability of TVET graduates in the job market. These responses are captured in table 4.28.

Table 4.28***Relevance of Institutional Departmental Plans in Enhancing Employability***

Relevant of departmental plans to employability	Frequency (n)	Percentage (%)
Strongly disagree	8	3
Disagree	11	4
Not sure	73	24
Agree	151	50
Strongly agree	58	19
Total	301	100

As the findings indicate in table 4.28, 7% (19) disagreed that their departmental plans played a significant role in enhancing employability of their graduates. It was also noted that 24% (73) neither agreed nor disagreed with this view. On the contrary, 69% (201) of them agreed that the departments actually worked in favour of enhancing training of the TVET students in preparation for the job market.

Recent surveys Ngugi (2019) and Ogwengo and Osano (2017) undertaken to assess the role of TVETs in more than 15 countries in Africa established different departments were commonly targeted in this education model. These included the agriculture, public health, and water resource as well as the energy sectors. Others included management of the environment, ICT, and good public sector governance, among others. Following existing gaps in skills and knowledge acquisition in these sectors, the studies recommended development of competency-based curriculum to enable students in strategic fields to take TVET programmes as core or compulsory subjects. These findings were reinforced by the current research. Equally rated as

very critical TVET sector development were handicrafts, computer literacy, and entrepreneurship courses. However, liked it emerged in this study, Gachunga et al. (2020a) noted that lack of adequate resources, common learning policies and curriculum for TVET programs across different neighboring countries made it difficult for implementing a harmonized long terms career for students pursuing TVET courses.

The respondents were also asked about how they would rate effectiveness of departmental plans in their respective institutions based on certain parameters. These parameters were assessed based on 5-point Likert scale, and they included performance appraisal, action programs, trainers’ capacity building, and mode of assessment. Responses are presented in table 4.29 where they showed the respondents varied opinions.

Table 4.29

Rating Effectiveness of Institutional Operational Departmental Plans

Effectiveness of departmental plans	1=very ineffective	2=ineffective	3=Moderate	4=effective	5=Very effective	Total
	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>
Performance appraisal	6 (2)	3 (1)	43 (14)	190 (63)	59 (20)	301 (100)
Action programs	21 (7)	30 (10)	57 (19)	126 (42)	67 (22)	301 (100)
Trainers’ capacity building	11 (4)	31 (10)	90 (30)	117 (39)	52 (17)	301 (100)
Mode of assessment	22 (7)	33 (11)	48 (16)	98 (33)	100 (33)	301 (100)
Mean	15 (5)	24 (8)	60 (20)	133 (44)	70 (23)	301 (100)

As illustrated in table 4.29, 3% (9), 17% (51), 14% (42), and 18% (53) of the respondents thought that performance appraisal, action programs, trainers’ capacity building, and mode of

assessment were respectively ineffective when it came to assessing institutional department plans of TVET institutions. It also emerged that 14% (43), 19% (57), 30% (90), and 16% (48) of the respondents respectively had the opinion that performance appraisal, action programs, trainers' capacity building, and mode of assessment were moderately effective in determining institutional departmental plans of TVETs in Nairobi metropolitan counties.

The study further established that regarding performance appraisal, action programs, trainers' capacity building, and mode of assessment, 83% (249), 64% (193), 56% (169), and 66% (300) of the respondents in that order had the views that these parameters were effective in ascertaining the role of institutional departmental plans in enhancing training of TVET students to impart in them employability skills. The mean score for each of the four domains (performance appraisal, action programs, trainers' capacity building, and mode of assessment) along the Likert scale from 1-5 was noted as 5% (15), 8% (24), 20% (60), 44% (133), and 23% (70) respectively. The statistics further showed that on average 87% of the respondents thought that the four parameters influenced institutional departmental plans in moderate, effective and very effective scales cumulatively. In explaining the need for institutional departmental plans when it came to strategy review to enhance chances of the graduates being employed after completion of TVET college education, one of the principals (P031) had the following to say:

To enhance quality of training in the industry/market, creating independent departments enhances creativity and innovativeness as the managements of those specific faculties create a competitive environment for emerging job opportunities in the market. Such arrangement also enhances different departments' ability to compete syllabuses on time and moderate performance of finalist students on time. Distinct departments are also more effective in creating action plans, incusing ensuring that syllabuses are completed on time and performance is good. Every person in every activity must develop a plan that gives guidance on what to do, so as an institution we do plan annually through distinct departments whose plans of action are finally consolidated to bring out a clearer picture of where we are headed.

This also helps us to plan before-hand, to ensure smooth learning and adherence to program action. Clearer plans define our activities and success at the end of the day as every department comes in with their action plan and target every academic year to guide them.

4.4.5 Moderating Effect of Government Regulations of TVET Institutions on Graduate Employability

In a general sense, the research also sought to establish the moderating effect of government regulations of TVET institutions on how strategy review impacted graduate employability in Kenya. Existing government regulations can sometimes become enhancers or inhibitors of growth and performance of institutions they are meant to regulate. The national government has the responsibility of providing education policy, standards, curriculum development and review direction, as well as moderating examinations. Similarly, the government is mandated to give operational licenses to the tertiary educational institutions, such as the TVETs while ensuring that all their operations are conducted within certain standards (TVETA, 2018). Yet, just like individual institutions, some of the common challenges that the government faces revolved around limited budgetary allocations. At the same time there is sometimes lack of goodwill from TVET managements in rolling out new programs to meeting emerging job needs (Ismail & Hassan, 2019). Hence, in a scale of 1-5 where 1 meant the least and 5 the highest score, the respondents were asked to state the extent to which they agreed that government regulations moderate strategy review in TVET institutions as a possible factor of employability of TVET graduates in the job market. Table 4.30 provides summary of these responses.

Table 4.30***Government Regulations Moderating Strategy Review in TVET Institutions***

Government regulations moderating strategy review	Frequency (n)	Percentage (%)
Strongly disagree	6	2
Disagree	10	3
Neutral	110	37
Agree	143	48
Strongly agree	32	11
Total	301	100

As illustrated in table 4.30, 5% (16) of the respondents disagreed, 37% (110) had neutral views, whereas 59% (175) agreed that government regulations moderate strategy review in TVET institutions as an influencing factor on the job market. With at least 59% of the respondents clearly acknowledging the moderating influence of government regulations on strategy review, this implied that TVET institutions may not be able to offer the best to their students in terms of employability skills unless those regulations are fair and effective. Government regulations on the TVET sector must also be cognizant of the ever changing employment sector demands, hence flexible enough to regulate this highly dynamic sector.

Additionally, the respondents were asked how they would rate the role of government regulations in moderating strategy review in TVET institutions on employability of TVET graduates in the job market based on 5 specific domains, namely policy dissemination, effectiveness, timeliness, decision making levels, and stakeholder involvement. These were measured based on 5-point Likert scale where 1 represented very inadequate and 5 very adequate.

Table 4.31 presents summary of these responses.

Table 4.31***Rating Role of Government Regulations Moderating Strategy Review***

Rate role of	<i>1=very</i>	<i>2=inadequate</i>	<i>3=Moderate</i>	<i>4=Adequate</i>	<i>5=Very</i>	<i>Total</i>
government	<i>inadequate</i>				<i>adequate</i>	
regulations	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>	<i>n(%)</i>
Policy dissemination	4 (1)	23 (8)	131 (44)	113 (38)	30 (10)	301 (100)
Effectiveness	0 (0)	25 (8)	155 (51)	84 (28)	37 (12)	301 (100)
Timeliness	6 (2)	61 (20)	158 (52)	69 (23)	7 (2)	301 (100)
Decision making	5 (2)	34 (11)	128 (43)	79 (26)	55 (18)	301 (100)
levels						
Stakeholder	11 (4)	70 (23)	156 (52)	64 (21)	0 (0)	301 (100)
involvement						
Mean	5 (2)	43 (14)	146 (48)	82 (27)	26 (9)	301 (100)

As the statistics in table 4.31 indicate, 9% (27), 8% (25), 22% (67), 13% (39), and 27% (81) of the respondents said that the 5 parameters (policy dissemination, effectiveness, timeliness, decision making levels & stakeholder involvement) respectively were inadequate in moderating strategy review. At the same time, 44% (131), 51% (155), 52% (158), 43% (128), and 52% (156) of the respondents opined that the moderating role of government regulations on policy dissemination, effectiveness, timeliness, decision making levels & stakeholder involvement respectively was moderate. In a similar order (policy dissemination, effectiveness, timeliness, decision making levels & stakeholder involvement), 38% (113), 28% (84), 23% (69), 26% (79), and 21% (64) of those interviewed said that the moderating effect of the regulations was adequate. Finally, in the respective order (policy dissemination, effectiveness, timeliness,

decision making levels & stakeholder involvement), 10% (30), 12% (37), 2% (7), 18% (55), and 0% (0) of the respondents had the opinion that the regulations played a very adequate moderating role on strategy review in TVET institutions. On average, the mean of responses across all the domains was 2% (5) for very inadequate, 14% (43) for inadequate, 48% (146) moderate, 27% (82) adequate, and 9% (26) for very adequate.

In directly explaining their sentiments on the role of government regulations in moderating strategy review in the job market, the following direct quotes from a deputy principal (DP039) of a private TVET college suffice:

The government regulations are there to enhance ease of operation in all levels. Strategy review from the government defines key economic areas and the necessary skills required in such sectors. However, sometimes they appear to be dictating too much terms to the TVETs without tangible operational support. Some of the terms and regulations issued by the Ministry appear not to have emanated from proper consultative forums, especially with the involvement of all stakeholders such as the private institutions. That is why you may be seeing a lot of unemployed TVET graduates because probably they did course which are not marketable enough. Regardless, this sector needs a lot of support from the government to show direction. For example, the government should be providing regular updates on the gaps in the employment sector so that TVETs can regularly train and produce graduates who are employable and able to positively contribute to the economy. Despite this important regulatory role by the government, sometimes the reviews come too late in the day due to too much bureaucracy.

Departmental plans in a training TVET institution are very important when it comes to easier coordination and specialization. Likes in our current study, Abdullah et al. (2019) noted that departmental plans can provide a roadmap on how to prioritize training and skills based on existing and emerging job market demands. Ngugi (2019) also noted that proper design, review and implementation of department plans help to communicate an institution's main priorities through a strategic outcome, program and expected results. However, Karim and Maat (2019) noted that common challenges related to departmental plans in TVET institutions mainly

revolved around lack of infrastructure, inferior training equipment and limited physical facilities, as well as low quality programs and teaching staff. As a result, UNESCO (2020) concluded that unless these challenges were addressed proactively, careers related to TVET education and training was in jeopardy since most students were likely to consider TVET as their last post-secondary education option.

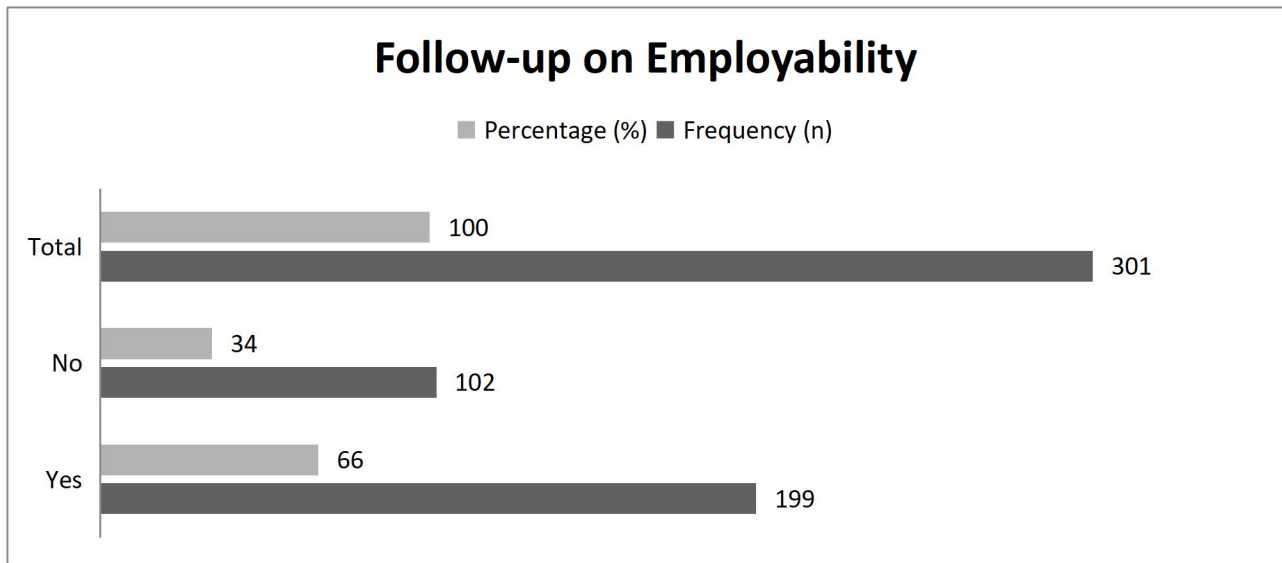
In agreement with our findings in the current study, these views by UNESCO (2020) were reiterated by Muthuprasad et al. (2021) by revealing that if TVET institutions are unable to create more relevant courses and programmes through regular revamping of teaching departments, then they stand the risk of being irrelevant in the job market. There were however several challenges that curtailed many departmental heads from implementing more relevant courses. According to Ismail and Hassan (2019), some of the challenges revolved around limited budgetary allocations, lack of goodwill from TVET managements in rolling out new programs to meeting emerging job needs.

4.4.6 Follow-up on Employability of TVET Graduates

Understanding the dynamics of employability of TVET graduates should be central to the government's agenda and to all other key stakeholders. This would ensure that any strategy reviews being undertaken are informed by empirical findings. Hence, the researcher sought to find out whether different TVET institutions made any follow-ups on their graduates to know about their employability. Figure 4.11 provides a summary of these responses.

Figure 4.11

Follow-ups on Graduates to know about their Employability?



Based on the findings in figure 4.11, 66% (199) of the respondents said their institutions made some follow-ups on employability of their graduates, whereas 34% (102) said they did not. As demonstrated by a number of studies, employability skills remain at the core of the most important attributes of TVET graduates. According to Halik and Mohd (2023), these skills determine the level of career readiness of TVET graduates. They include but are not limited to entrepreneurial, communication, critical thinking, and problem solving skills. Yet, majority of TVET institutions lack the capacity to make regular follow-ups on their graduates' employability, thus limiting role of strategy review in one way or the other.

In responding to the how they would rate the employability of TVET graduates across different sectors of the economy, both in the private and public space, the respondents expressed their views as presented in table 4.32.

Table 4.32***Rating of TVET Graduates' Employability***

rate employability of TVET Graduates	Frequency (n)	Percentage (%)
1=below average	0	0
2=average	14	5
3=above average	44	15
4=good	129	43
5=Very good	114	38
Total	301	100

Based on findings in table 4.32, 5% (14) thought that employability of TVET graduates was average, 15% (44) above average, 43% (129) good, and 38% (114) very good. Overall, the statistics further indicated 81% had high level (good and very good) of confidence in TVET graduates in terms of the employability skills they were imparted with. These findings were in synch with a number of recent surveys on employability skills of TVET graduates which have shown that there is a gradual increase in employment of TVET graduates in Kenya, and across the world, as a result of the government's efforts to ensure that institutions in this sector offer the right skills needed in the job market (Buunaaisie et al., 2018; Chan & Fong, 2018; Nganga, 2023). In a recent move by the Kenyan government to further bolster employability of TVET graduates, the Cabinet launched fresh efforts for a more robust curriculum for the sector through a reestablishment of TVET CDACC which had been dismantled for the past two years (Nganga, 2023). Among the council's mandates is to undertake a review of curriculums for TVETs' examination, assessment, and competence certification as well as advise the Ministry on policy review and regulation matters. Through a flexible, demand-driven, and learner-centered

approach, the TVET industry-led curriculums will ensure that there is an effective link of the TVET institutions and employment partners to enable training of students on the most needed skills in the job market.

This study further revealed that in the past 5 years a number of TVET graduates have been employed variously, with the respondents placing the estimated number to between 55-80% of those who completed their studies at various levels. Despite some of the institutions being unable to make follow-ups on the employment status or history of their graduates over time, to those who had some capacity to keep the trail observed that the figures of their graduates who managed to secure jobs after completing their studies in TVET colleges were encouraging.

4.5 Inferential Analysis of the Independent Variables

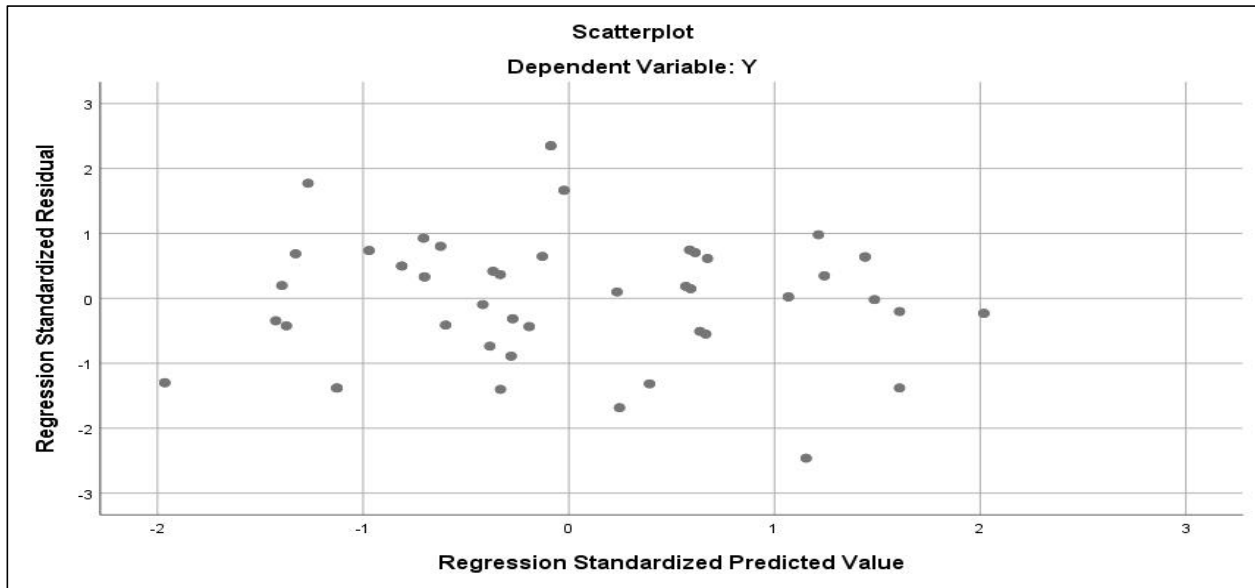
Apart from descriptive statistics which allowed the researcher to organize, quantify, summarize and describe the trends and basic characteristics of the data used in the study which were presented largely in form of frequencies and percentages, inferential statistics were used for explaining how the variables related. The inferential analysis also allowed the researcher to draw important conclusions based on extrapolations. Inferential analysis was preceded by parametric tests, including normality and multicollinearity tests, which were carried out to establish fitness of different parameters for running the inferential analysis.

4.5.1 Test for Normality of Data

In order to effectively run a regression analysis, the assumption is that the residual or error term should be normally dispersed. Hence, figure 4.12 illustrates residual plot for normality distribution test.

Figure 4.12

Normality Test Residual Plot



As shown in figure 4.12, peaking of dispersal of standard residuals at the center of the scatter plot demonstrates normal distribution of the error terms. Kolmogorov-Smirnov test was also carried out to rule out any disruption or violation of normal distribution of data assumptions, with the findings summarized in table 4.33.

Table 4.33

Kolmogorov-Smirnov Test

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Unstandardized Residual	0.08	301	0.065
Standardized Residual	0.08	301	0.065

As tabulated in table 4.33, the Kolmogorov-Smirnov test analysis indicates that the standardized and unstandardized residuals have p-values ($p = 0.65$) of greater than 0.05, which implied that

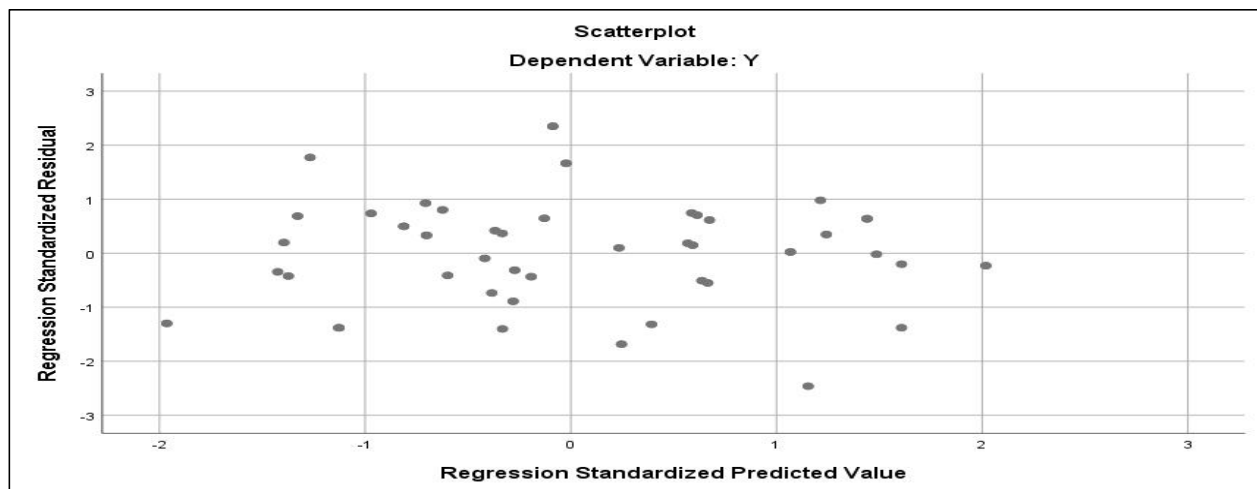
the residuals were normally distributed. These findings concurred with residual dispersion in the scatterplot.

4.5.2 Test of Independence of Variables

The test of independence of the predictor or independent variables was also done to determine if there was any pattern of the residuals, as demonstrated in figure 4.13.

Figure 4.13

Residual Scatterplot for Independence of Residuals



The test for independence of residuals of the independent variables showed that they were not interdependent on each other, this confirming that the assumption of independence was not violated.

4.5.3 Multicollinearity Test

The findings for test of multicollinearity are presented in table 4.34, where variance inflation factor was used in the test.

Table 4.34***Multicollinearity Test***

Model	Collinearity Statistics	
	Tolerance	VIF
Situational Analysis	0.417	4.23
Institutional Objectives	0.438	3.11
Curriculum Implementation Strategies	0.613	2.87
Operational Departmental Plans	0.541	2.67

As indicated in table 4.34, none of the variance inflation values (VIF) was greater than 10 while all the values for tolerance level were greater than 0.2. These statistics ruled out existing of multicollinearity between variables, since according to García-Escudero et al. (2010), this condition can only exist if the model has a VIF value of more than 10 or a tolerance level of less than 0.2. Therefore, multicollinearity in the dataset did not exist, further implying that the independent or predictor variables did not influence each other. Nonexistence of multicollinearity in the data meant that it was fit for regression modeling.

4.5.4 Analysis of Pearson Correlation Coefficient of Variables

This study examined the influence of strategy review in TVET institutions on graduate employability in Kenya. The Pearson correlation coefficient (r) analysis was performed to measure linear association between predictors. The analysis focused on the strategy review (independent variable) in TVET institutions and graduate employability (dependent variable) in Kenya. Table 4.35 presents the outcome of the analysis.

Table 4.35***Pearson Correlation Analysis***

		Graduate employability	X1	X2	X3	X4
Graduate employability	Pearson Correlation	1				
	N	301				
Situational Analysis	Pearson Correlation	.611**	1			
	Sig. (2-tailed)	.000	301			
	N	301				
Institutional Objectives	Pearson Correlation	.551**	.623**	1		
	Sig. (2-tailed)	.000	.000	301		
	N	301	301			
Curriculum implementation Strategies	Pearson Correlation	.582**	.136	.413**	1	
	Sig. (2-tailed)	.000	.000	.000	301	
	N	301	301	301		
Operational Departmental Plans	Pearson Correlation	.641**	.121	.443*	.453**	1
	Sig. (2-tailed)	.000	.000	.000	.000	301
	N	301	301	301	301	

As illustrated in table 4.35, for all the independent variables (situational analysis, institutional objectives, curriculum implementation strategies, and operational departmental plans), the Pearson correlation coefficient (r) values were less than +1 and more than -1. This implied that there was a significant and positive relationship between strategy review and TVET graduate employability in Kenya. Specifically, the findings in table 4.35 showed that situational analysis ($r=.611$, $p=.000$), institutional objectives ($r=.551$, $p=.000$), curriculum implementation strategies ($r=.582$, $p=.000$), and operational departmental plans ($r=.641$, $p=.000$).

4.5.5 Regression Analysis and Testing of Hypotheses

The regressions were important in testing hypotheses and estimating the effect or influence of predictor, explanatory or independent variables on the dependent variable or outcome of the study. Before analysis for individual independent variables and testing each of the hypotheses of the study, a model summary for strategy review was established to explain how or the extent to which this phenomenon influenced graduate employability of TVET institutions.

Further discussions of the multiple regression analysis of variables and testing of the hypotheses of the study are provided in the subsequent sections.

Objective 1 was to assess the influence of situational analysis in TVET institutions on graduate employability in Kenya. Hence, the following null hypothesis was formulated and tested.

H₀1 There is no significant influence of situational analysis in TVET institutions on graduate employability in Kenya.

Model summary was carried out to gauge the strength of the relationship between the situational analysis and graduate employability. Table 4.36 presents summary of the coefficient of correlation R and the coefficient of determination R square (R²).

Table 4.36

Model Summary for Situational Analysis and Graduate Employability

Model	R	R Square (R ²)	Adjusted R Square	Std Error of the Estimate
1	.611 ^a	.373	.368	.6121

Situational Analysis (X1)

Statistics in table 4.36 indicates the coefficient to be 0.611, which implied a strong correlation between situational analysis and graduate employability. The statistics further showed that the coefficient of determination R square (R²) was 0.373 which meant that 37.3% of TVET graduate employability in Kenya was influenced or explained by situational analysis.

Analysis of variance (ANOVA) of the regression model was also carried out to test the good of fit of the model of the study, or establish the significance of the correlation between situational analysis and graduate employability. Table 4.37 presents the ANOVA findings.

Table 4.37

ANOVA for Situational Analysis and Graduate Employability

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	24.697	1	24.70	38.96	.001 ^b
Residual	189.515	299	0.63		
Total	214.212	300			

The ANOVA analysis in table 4.37 shows that the P-value was 0.001 and the *F* statistic (1, 299) at 95% level of significance (0.63) was less than *F* calculated (38.96). Since the p-value was less than 0.05, therefore situational analysis had a significant influence on TVET graduate employability (F=38.96 & p-value <0.05).

Linear regression was performed to establish the level of influence of situational analysis on graduate employability in Kenya, where the regression coefficients were summarized in table 4.38.

Table 4.38***Regression Coefficients for Situational Analysis***

Predictor	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
Constant	2.801	0.051		1.321	0.000
X ₁ Situational analysis	0.331	0.105	0.411	3.211	0.001

a. Graduate employability

Based on statistics in table 4.38, regression equation can be written as $Y = 2.801 + 0.331 X_1$. The findings meant that assuming all factors were held at zero, graduate employability would be 2.801. However, a unit increase in situational analysis when other factors remained at zero would lead to a 0.331 improvement in graduate employability. At the same time, with the P-value of 0.001 which is less than 0.05 ($p = 0.001 < 0.05$) at 5% level of significance, the conclusion was that situational analysis significantly influenced graduate employability.

From the foregoing findings in table 41, 42 and 43 on Model Summary, ANOVA and Regression Coefficients for Situational Analysis respectively, we therefore reject our null (H_0) hypothesis that there is no significant influence of situational analysis in TVET institutions on graduate employability in Kenya. Consequently, we adopt alternate hypothesis that there is significant influence of situational analysis in TVET institutions on graduate employability in Kenya.

Objective 2 was to establish the influence of institutional objectives in TVET institutions on graduate employability in Kenya. Hence, the following null hypothesis was formulated and tested.

H₀₂ There is no significant influence of institutional objectives in TVET institutions on graduate employability in Kenya.

Model summary was done to determine the strength of the relationship between institutional objectives and graduate employability. Table 4.39 presents summary of the coefficient of correlation R and the coefficient of determination R square (R²).

Table 4.39

Model Summary for Institutional Objectives and Graduate Employability

Model	R	R Square (R²)	Adjusted R Square	Std Error of the Estimate
1	.551	.303	.241	.6012

Institutional objective (X₂)

The model summary in table 4.39 indicates the coefficient (R) was 0.551, which implied a strong correlation between institutional objectives and graduate employability. The statistics further indicated that the coefficient of determination R square (R²) was 0.303 which meant that 30.3% of TVET graduate employability in Kenya was explained by institutional objectives.

ANOVA of the regression model was also carried out to test the good of fit of the model of the study and establish the significance level of the correlation between institutional objectives and graduate employability. Table 4.40 presents the ANOVA findings.

Table 4.40***ANOVA for Institutional Objectives and Graduate Employability***

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	19.697	1	19.70	30.28	.003 ^b
Residual	194.515	299	0.65		
Total	214.212	300			

The ANOVA analysis in table 4.40 shows that the P-value was 0.003 and the *F* statistic (1, 299) at 95% level of significance (0.65) was less than *F* calculated (30.28). Since the p-value was less than 0.05, therefore institutional objectives had a significant influence on TVET graduate employability (F=30.28 & p-value <0.05).

Linear regression was done to establish the level of influence of institutional objectives on graduate employability in Kenya, where the regression coefficients were summarized in table 4.41.

Table 4.41***Regression Coefficients for Institutional Objectives***

Predictor	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
Constant	2.709	0.053		1.332	0.000
X ₂ institutional objectives	0.302	0.101	0.412	3.201	0.002

a. Graduate employability

Based on statistics in table 4.41, regression equation was $Y = 2.709 + 0.302 X_2$. The findings meant that when all factors were held at zero, graduate employability was 2.708. However, a unit

increase in institutional objectives when other factors remained at zero would lead to a 0.302 increase in graduate employability. Furthermore, with the P-value of 0.002 which was less than 0.05 ($p=0.002<0.05$) at 5% level of significance, it was concluded that institutional objectives had a significant influence on graduate employability.

From the foregoing findings in table 44, 45 and 46 on Model Summary, ANOVA and Regression Coefficients for institutional objectives respectively, we therefore reject our null (H_0) hypothesis that there is no significant influence of institutional objectives in TVET institutions on graduate employability in Kenya. Hence, we adopt alternate hypothesis that there is significant influence of institutional objectives in TVET institutions on graduate employability in Kenya.

Objective 3 was to assess the influence of curriculum implementation strategies in TVET institutions on graduate employability in Kenya. Hence, the following null hypothesis was formulated and tested.

H₀₃ There is no significant influence of curriculum implementation strategies in TVET institutions on graduate employability in Kenya.

Model summary was done to determine the strength of the relationship between curriculum implementation strategies and graduate employability. Table 4.42 presents summary of the coefficient of correlation R and the coefficient of determination R square (R^2).

Table 4.42

Model Summary for curriculum implementation strategies and Graduate Employability

Model	R	R Square (R²)	Adjusted R Square	Std Error of the Estimate
1	.582	.338	.314	.6332

Curriculum implementation strategies (X3)

The model summary in table 4.42 indicates the coefficient (R) was 0.582, which implied a strong correlation between curriculum implementation strategies and graduate employability. The statistics further indicated that the coefficient of determination R square (R²) was 0.338 which meant that 33.8% of TVET graduate employability in Kenya was explained by curriculum implementation strategies.

ANOVA of the regression model was also carried out to test the good of fit of the model of the study and establish the significance level of the correlation between curriculum implementation strategies and graduate employability. Table 4.43 presents the ANOVA findings.

Table 4.43

ANOVA for Curriculum Implementation Strategies and Graduate Employability

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	14.697	1	14.70	22.03	.000 ^b
Residual	199.515	299	0.67		
Total	214.212	300			

The ANOVA analysis in table 4.43 shows that the P-value was 0.000 and the *F* statistic (1, 299) at 95% level of significance (0.67) was less than *F* calculated (22.03). Since the p-value was less than 0.05, therefore curriculum implementation strategies had a significant influence on TVET graduate employability (F=22.03 & p-value <0.05).

Linear regression was carried out to establish the level of influence of curriculum implementation strategies on graduate employability in Kenya, where the regression coefficients were summarized in table 4.44.

Table 4.44

Regression Coefficients for curriculum implementation strategies

Predictor	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
Constant	2.666	0.054		1.341	0.000
X ₃ Curriculum implementation strategies	0.327	0.141	0.432	3.243	0.003

a. Graduate employability

Based on statistics in table 4.44, regression equation can be written as $Y = 2.666 + 0.327 X_3$. The findings meant that when all factors were held at zero, graduate employability was 2.666. However, a unit increase in curriculum implementation strategies when other factors remained at zero would lead to a 0.327 increase in graduate employability. Furthermore, with the P-value of 0.003 which was less than 0.05 ($p = 0.003 < 0.05$) at 5% level of significance, it was concluded that curriculum implementation strategies had a significant influence on graduate employability.

From the foregoing findings in table 47, 48 and 49 on Model Summary, ANOVA and Regression Coefficients for curriculum implementation strategies respectively, we therefore reject our null (H_0) hypothesis that there is no significant influence of curriculum implementation strategies in TVET institutions on graduate employability in Kenya. Hence, we adopt alternate hypothesis that there is significant influence of curriculum implementation strategies in TVET institutions on graduate employability in Kenya.

Objective 4 was to establish the influence of operational departmental plans of TVET institutions graduate employability in Kenya. Hence, the following null hypothesis was formulated and tested.

H₀₄ There is no significant influence of operational departmental plans of TVET institutions graduate employability in Kenya.

Model summary was done to determine the strength of the relationship between curriculum implementation strategies and graduate employability. Table 4.45 presents summary of the coefficient of correlation R and the coefficient of determination R square (R²).

Table 4.45

Model Summary for operational departmental plans and Graduate Employability

Model	R	R Square (R²)	Adjusted R Square	Std Error of the Estimate
1	.641	.410	.386	.6127

Operational departmental plans (X4)

The model summary in table 4.45 shows the coefficient (R) was 0.641, which implied a strong correlation between operational departmental plans and graduate employability. The statistics further indicated that the coefficient of determination R square (R²) was 0.410 which meant that 41% of TVET graduate employability in Kenya was explained by operational departmental plans.

ANOVA of the regression model was also carried out to test the good of fit of the model of the study and establish the significance level of the correlation between operational departmental plans and graduate employability. Table 4.46 presents the ANOVA findings.

Table 4.46

ANOVA for operational departmental plans and Graduate Employability

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	29.697	1	29.70	48.12	.002 ^b
	Residual	184.515	299	0.62		
	Total	214.212	300			

The ANOVA analysis in table 4.46 shows that the P-value was 0.002 and the *F* statistic (1, 299) at 95% level of significance (0.62) was less than *F* calculated (48.12). Since the p-value was less than 0.05, therefore operational departmental plans had a significant influence on TVET graduate employability (F=48.12 & p-value <0.05).

Linear regression was carried out to establish the level of influence of operational departmental plans on graduate employability in Kenya, where the regression coefficients were summarized in table 4.47.

Table 4.47

Regression Coefficients for operational departmental plans

Predictor	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
Constant	2.912	0.059		1.283	0.000
X ₄ operational departmental plans	0.344	0.152	0.456	3.231	0.000

a. Graduate employability

Based on statistics in table 4.47, regression equation can be written as $Y = 2.912 + 0.344 X_4$. The findings meant that when all factors were held at zero, graduate employability was 2.912.

However, a unit increase in operational departmental plans when other factors remained at zero would lead to a 0.344 increase in graduate employability. Furthermore, with the P-value of 0.000 which was less than 0.05 ($p=0.000<0.05$) at 5% level of significance, it was concluded that operational departmental plans had a significant influence on graduate employability.

From the foregoing findings in table 50, 51 and 52 on Model Summary, ANOVA and Regression Coefficients for operational departmental plans respectively, we therefore reject our null (H_0) hypothesis that there is no significant influence of operational departmental plans in TVET institutions on graduate employability in Kenya. Hence, we adopt alternate hypothesis that there is significant influence of operational departmental plans in TVET institutions on graduate employability in Kenya. In conclusion, based on the inferential statistics, the study established that strategy review in TVET institutions had a significant influence on graduate employability. However, there are other factors but which are outside the scope of this study that may also have an influence on TVET graduate employability in Kenya.

Multiple Linear Regression

Multiple linear regression analysis helped the researcher to better understand the outcome of the four predictor variables when they are put in a combined relationship. It was also essential in increasing reliability of each of the variables when it comes to the contribution of each of the variable on the outcome of the study by avoiding overdependence on just one variable but rather consider all the independent variables in looking at their support to the dependent variable. Multiple regression analysis also helped or permitted the researcher to test the hypotheses pursued in the research. In this case, the multiple linear regression model was adopted for testing

the significance of the influence of strategy review (independent or predictor variable) on employability (dependent variable or outcome of the study) of TVET graduates.

Table 4.48 illustrates coefficients of aggregated model without the moderating variable. Table 4.49 illustrates coefficients of aggregated model with the moderating variable being as independent variable. Table 4.55 illustrates coefficients of aggregated model interactions of the moderating variable (Z) with all the other variables in the effect model.

Model 1 = MULTIPLE REGRESSION

This model included all the four predictor variables X_1 - X_4 and the dependent variable (Y)

Table 4.48

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.574a	.330	.200	.82458	1.792

a. Predictors: (Constant), X4, X1, X2, X3

b. Dependent Variable: Y

Model 1 shows that all the four predictor variables explain 33% of the total variations in employability of graduates. This implies that there are other factors that determine employability of graduates other than education itself which were not the primary focus of this study. Since the R Squared is greater than 30% then the findings are varied and can be used to make further inferences.

Table 4.49***ANOVAa***

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.879	4	1.720	2.529	.041 ^b
	Residual	201.261	296	.680		
	Total	208.140	300			

a. Dependent Variable: Y

b. Predictors: (Constant), X4, X1, X2, X3

In a combined relationship the model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ was found to be statistically significant $F (2.529)$, $P (0.041)$. This implies that the model can be depended on when making predictions of Y from the given predictor variables (X_1 - X_4).

Table 4.50***Multiple Regression Coefficients***

Predictor	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	β	Std. Error	Beta		
Constant	2.880	0.525		5.481	0.000
X1 Situational analysis	0.23	0.081	0.016	0.283	0.777
X2 Institutional objectives	0.125	0.094	0.079	1.340	0.181
X3 Curriculum implementation strategies	-0.18	0.093	-0.012	-0.19	0.849
X4 Operational departmental plans	0.193	0.075	0.154	2.567	0.011

a. Graduate employability

Based on the statistics in table 4.48, the overall model for the study was $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$, where Y = graduate employability which was the dependent variable or outcome of the study and X's are the independent variables where X_1 = situational analysis, X_2 = institutional objectives, X_3 = curriculum implementation strategies, while X_4 = operational

departmental plans, ϵ is the error term, and β represents the coefficient of the model. The findings of the multiple regression coefficients further indicated that at the significance level of 0.05, situational analysis was insignificant (p-value of 0.777), institutional objectives are insignificant (p-value of 0.181), and curriculum implementation strategies are also insignificant in a combined relationship (p-value of 0.849) all these variables had p-values of greater than 0.05, hence did not have statistically significant influence on graduate employability. However, operational departmental plans with a p-value of 0.011, which is less than 0.05, implied a statistically significant relationship on the outcome of the research (employability of TVET graduates). The implication here is that when all the four variables interact together then departmental plans takes the role of all other three variables because in the plan itself all the other three variables are included and clearly documented. This finding does not deviate from the actual practice in that before a strategic plan is documented it involves situational analysis, setting of objectives, and curriculum is also embedded in the plan itself.

MODEL 2: WITH Z AS INDEPENDENT VARIABLE

Model 2 included Government Regulations (Z) which is a moderator variable as an independent variable just like X_1 - X_4 to find out whether Z when included as the fifth variable improves the overall outcome of the interaction of five variables in terms of R Squared.

Table 4. 51

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.574a	.330	.171	.82579	1.792

a. Predictors: (Constant), Z, X1, X4, X2, X3

b. Dependent Variable: Y

The outcome of including government regulations (Z) as an independent variable did not improve the results earlier obtained in Model 1 and R squared remained at 33%. This implies that since regulations do not change from time to time the effects of these regulations are contained in other variables and therefore adding government regulation does not improve the R Squared and the model is insignificant F (2.045) P (0.072).

Table 4.52

ANOVAa

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.971	5	1.394	2.045	.072 ^b
	Residual	201.168	295	.682		
	Total	208.140	300			

a. Dependent Variable: Y

b. Predictors: (Constant), Z, X1, X4, X2, X3

Table 4.53

Multiple Regression Coefficients

Predictor	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
Constant	2.931	0.544		5.386	0.000
X1 Situational analysis	0.25	0.081	0.018	0.304	0.761
X2 Institutional objectives	0.131	0.095	0.083	1.380	0.168
X3 Curriculum implementation strategies	-0.10	0.095	-0.007	-0.11	0.913
X4 Operational departmental plans	0.193	0.075	0.155	2.565	0.011
Z (government regulations)	-0.33	0.088	-0.022	-0.36	0.713

b. Graduate employability

From the multiple regression above, curriculum implementation strategies had the weakest statistically significant influence on graduate employability, with highest p-value ($p=0.913>0.05$), followed by situational analysis ($p=0.761>0.05$), and institutional objectives ($p=0.168>0.05$). On the contrary, operational departmental plans, with p-value ($p=0.011<0.05$), statistically significantly influenced the dependent variable, TVET graduate employability. The findings also showed that even the government regulations ($p=0.713>0.05$) as the moderating variable did not statistically significantly influence the dependent variable. Generally, these findings may imply that despite the government regulations (moderating variable) which provided policy guidelines and dictated on how the TVET sector should be run, and regardless of other activities such as situational analysis, setting of institutional objectives, and curriculum implementation strategies practiced by individual TVET institutions, what may matter most is how different departments of the institutions ensured that these activities were implemented based on priorities.

MODEL 3 WITH INTERACTION TERMS

In this model, the moderating variable (Z) is interacting with all predictor variables X₁-X₄ and the results are presented in the table below

Table 4.54

Model Summary

Change Statistics									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.574 ^a	.330	.200	.82458	.000	2.529	4	296	.041
2	.573 ^b	.330	.171	.82579	.000	.135	1	295	.713
3	.976 ^c	.952	.672	.80447	.620	4.961	4	291	.001

a. Predictors: (Constant), X₄, X₁, X₂, X₃

b. Predictors: (Constant), X₄, X₁, X₂, X₃, Z

c. Predictors: (Constant), X₄, X₁, X₂, X₃, Z, X₄Z, X₁Z, X₃Z, X₂Z

Model 1 is the initial multiple regression model where R squared is 33% and is significant (0.41). When Z is included as an independent variable in 2nd Model, the results becomes insignificant (P=0.713) and R Square did not change at all. When the

moderating variable (Z) interacts with all predictor variables, the R Squared changes by 95.2% and double itself from 33% to 67.2% and the R Squared change is significant P=0.001

Table 4.55

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.879	4	1.720	2.529	.041 ^b
	Residual	201.261	296	.680		
	Total	208.140	300			
2	Regression	6.971	5	1.394	2.045	.072 ^c
	Residual	201.168	295	.682		
	Total	208.140	300			
3	Regression	19.813	9	2.201	3.402	.001 ^d
	Residual	188.326	291	.647		
	Total	208.140	300			

a. Dependent Variable: Y

b. Predictors: (Constant), X4, X1, X2, X3

c. Predictors: (Constant), X4, X1, X2, X3, Z

d. Predictors: (Constant), X4, X1, X2, X3, Z, X4Z, X1Z, X3Z, X2Z

The table above show model validity. Model 1 and Model 3 are valid F (2.529 P=0.0141), F (3.402 P=0.001) respectively. Model 2 is where Z is a predictor variable is insignificant F (2.045 P=0.072)

Table 4.56***Multiple Regression Coefficients^a***

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.880	.525		5.481	.000
	X1	.023	.081	.016	.283	.777
	X2	.125	.094	.079	1.340	.181
	X3	-.018	.093	-.012	-.191	.849
	X4	.193	.075	.154	2.567	.011
2	(Constant)	2.931	.544		5.386	.000
	X1	.025	.081	.018	.304	.761
	X2	.131	.095	.083	1.380	.168
	X3	-.010	.095	-.007	-.110	.913
	X4	.193	.075	.155	2.565	.011
	Z	-.033	.088	-.022	-.368	.713
3	(Constant)	5.422	3.052		1.777	.077
	X1	-.197	.608	-.141	-.324	.747
	X2	1.621	.782	1.021	2.074	.039
	X3	-.968	.600	-.638	-1.614	.108
	X4	-.944	.488	-.757	-1.937	.054
	Z	-.883	.908	-.601	-.972	.332
	X1Z	.050	.183	.186	.275	.783
	X2Z	-.467	.234	-1.828	-1.991	.047
	X3Z	.320	.174	1.204	1.837	.067
	X4Z	.374	.146	1.431	2.565	.011

a. Dependent Variable: Y

The overall model above shows that government regulations (Z) had the least moderating effect on X1 (situational analysis), with $p=0.783>0.05$, followed by X3 (curriculum implementation strategies) ($p=0.67>0.05$). However, the regulations had a statistically significant influence on X4 (operational departmental plans), with $p=0.011<0.05$, followed by X2 (institutional objectives), $p=0.047>0.05$. It can then be concluded that although government regulations were important in providing guidelines on how to manage the TVET institutions, their success depended mostly on their independent departmental plans.

This implies that when government changes their regulations then the objectives of the TVET institutions have to be aligned to the changes that have taken place and be incorporated in their overall departmental plans. This explains why government regulations have moderated X_2 (Objectives) and X_4 (Institutional Plans)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The section presents summary, conclusions and recommendations of the study, where the presentation was done based on specific research objectives.

5.2 Summary of Findings

The study explored the influence of strategy review in TVET institutions on employability of graduates in Kenya. Specifically, the research focused on the influence of situational analysis in TVET institutions on graduate employability, the influence of institutional objectives in TVET institutions on graduate employability, the influence of curriculum implementation strategies in TVET institutions on graduate employability, and the influence of operational departmental plans of TVET institutions graduate employability in Kenya. Finally, the research looked that the moderating effect of government regulations of TVET institutions on the relationship between strategy review and graduate employability in Kenya.

Out of the sample of 353 respondents, 301 of them managed to successfully participate in the study, translating into a response rate of 85%. None of these categories registered less than 81% questionnaire return rate. Characteristics of the respondents were assessed on various grounds to understand their level of understanding of the subject of study. Some of the attributes of the respondents were related to their respective management positions in their respective TVETs, experience, gender, age category, level of education, category of institution (whether public or private), and the operation period of the colleges they served in. Additionally, the study inquired

about the number of students admitted and graduated each year, as well as funding sources of those institutions. In terms of gender, 64% were male while 36% were female.

Regarding experience, overall, 76% (229) respondents reported to have worked in their current positions for at least 6 years. Concerning age of the respondents, a greater majority (86%) of them were aged 31 years and above. It was also established that 85% had at least a first degree as their highest level of education. Furthermore, the findings noted that 65% (196) of the respondents involved in the study came from private TVETs, against 35% (105) from the public TVETs. A greater majority of the TVET institutions had been in operation for 6-15 years, accounting for 77% of those involved in the study. Close to 69% (209) TVET institutions had 500-1000 students' population, with 39% (118) of the institutions reported not to be satisfied with this enrollment figures.

On the number of programmes being offered, 23% of the TVETs had 1-5 different training programmes, 36% had 6-10 programmes, and 35% had 11-15, whereas only 6% had more than 15 programmes. Concerning tutor/students ratio, only 33% of the TVET institutions expressed satisfaction with the situation; implying that they fell short of the right number of tutors for effective training. It also emerged that over 75% of the institutions did not receive government or non-government funding, thereby making it to effectively run their affairs and offer the right skills to the students. However, some of the big international collaborators of the government in funding TVETs included the World Bank, JICA, and AFDB, among others. CICA, with its roots in Canada, was also mentioned as one of the organizations sponsoring private TVETs despite the sponsorship being inconsistent and on a small scale.

Despite the fact that close to 92% of TVET institutions had strategy review policies in place, only 61% of them indicated that the strategy review policies were effective. This implied that there was a significant gap that needed to be improved on the whole question of strategy review policies for TVETs as a guiding principle towards improvement of operations and performance of the sector in general. Related to existence of strategy review policy, there was the aspect of budgetary allocation for the implementation of the same, with 47% of the TVET management expressing dissatisfaction with the amount of allocations. As one of the important pillars of overall growth and performance of TVETs, infrastructural development policy was an essential element in strategy review. However, not all the institutions had an active policy related to infrastructural development, with 61% of the management agreeing to be having such policy against 39% who said they did not. It also turned out that only 41% of the TVET institutions that had the policy which thought that the policy was effective, or actively being implemented.

TVET graduates get to be absorbed in different job sectors in the employment market. However, the public sector seemed to absorb only 6%, whereas the private sector was to be employing nearly 69%, both in the corporate and self-employment subsectors. Also, the study established that 22% of TVET graduates ended up not having any kind of employment. These statistics seemed to resonate with those by a collaborative study by the World Bank and KEPSA which established that the private sector contributes almost 80% of Kenya's GDP, and employment opportunities by implication. The private sector was more vibrant in terms of creation of both formal and informal jobs, with majority of those job openings requiring hands-on and entrepreneurial skills which were strongly associated with training and induction from the TVET sector.

5.2.1 Influence of Situational Analysis in TVET Institutions on Graduate Employability

The findings related to different aspects of the influence of situational analysis in TVET institutions on employability of graduates in Kenya. Job market trends informed the kind of training to be prioritized by individual TVET institutions based on their capacities to undertake such trainings. Similarly, as a strong determining factor of strategy review, adequate financial resources was essential in facilitating several processes, including departmental meetings for laying strategies for reviews, data collection and processing where this was required, as well as buying snacks for meetings and offsetting any other contingencies directly related to the strategy review process. At the same time, competitiveness of courses being offered at any given time was a precursor for any reviews. The trend resonated with the job market since some of the courses would be rendered obsolete if there are no longer any jobs in the market that require specific skills offered in the existing courses. Notably, different TVET institutions often drop and/or launch a number of courses depending on their level of competitiveness in the job market at any given time.

Another crucial aspect in situational analysis in TVET institutions is related to educational resources. These entail but are not limited to instructional assets and processes, such as workshops, seminars, and case studies which are indispensable in the whole process of capacity building of the tutors. Other educational resources included collaboration elements, such as online teaching and meeting forums as well as chatting platforms which make it easier in learning, sharing information between trainers and students, and even enhancing distance learning engagements. Also, there is the category of practice objects, including simulations, different software for easier learning, online labs, and research objects among others.

Educational resources enable the institutions to provide high quality training and skills to the TVET students in resonance with the prevailing employment market situation. Through evaluation of educational resources, TVETs are able to understand how to adjust their operations based on the number of students being enrolled in the system. Despite the importance of educational resources in situational analysis as a component of strategy review, lack of adequate educational resources can be very challenging to TVET institutions in relation to offering practicals to students. In a general sense, availability of educational resources greatly defines the current and future standing of an institution.

5.2.2 Influence of Institutional Objectives in TVET Institutions on Graduate Employability

Objective 2 was about the influence of institutional objectives in TVET institutions on graduate employability in Kenya. An institution's short and long-term goals often form the basis for strategy review in order to set the priorities right at every step of institutional growth and performance. The findings showed that 96% of TVETs had clear institutional objectives which guided them in trying to offer relevant courses to their students. At the same time, overall 75% of the TVET institutions affirmed to be putting a lot of emphasis on reviewing of their objectives as an important step towards improving employability of their graduates. Adherence to the mission and vision of an institution was also an important step towards realization of institutional objectives as part of strategy review process. This view was held by 88% of the institutions involved in the study, with these statistics resonating well with the popular notion that success in the corporate sector is largely attributed to institutional mission and vision.

The study further noted that TVET institutions' core values play a very significant role in enhancing students' employability skills through strategy review, with 88% of those interviewed attesting to this view. This is because aligning key corporate decisions with at least one of the core values often leads to notable success. Quality of training of TVET students was also at the core of the processes of producing competent employees. This view was backed by 90% of the research participants, with a number of TVET institutions taking a lot of pride in their highly qualified and specialized tutors in helping them to achieve their institutional objectives. TVETs' management was generally keen on ensuring high quality training, as encouraged by the referrals they often received from employers. TVET institutions' practice of entrepreneurial culture inspired students to achieve their study goals, with 72% of the institutions agreeing with this view.

5.2.3 Influence of Curriculum Implementation Strategies in TVET Institutions on Graduate Employability

Objective 3 was about assessing how curriculum implementation impacted employability of the graduates from TVETs in Kenya. Ninety percent (90%) of those involved in the study affirmed that their institutions carried out regular curriculum review, with 77% of them further agreeing. Quality of curriculum review of different TVET institutions based on different considerations was rated as generally inadequate, with 62% of the institutions expressing the need for improvement by all key stakeholders. Quality of curriculum review was measured based on different key indicators. Based on different perspectives, curriculum review was noted as an important undertaking in enabling the TVET institutions to offer the right training and skills for

potential employment in different technical roles. Curriculum review was supposed to serve as the springboard for innovation and new skills.

5.2.4 Influence of Operational Departmental Plans in TVET Institutions on Graduate Employability

Objective 4 was related to the influence of operational departmental plans of TVET institutions on graduate employability in Kenya. The study noted that 69% of the TVET institutions had independent departmental plans, while 31% of them operated as consolidated blocs of business entities, thereby being constrained in terms of innovative key decisions that could propel them to greater performance. The findings further noted that 50% of the TVET institutions agreed that the departments actually worked in favour of enhancing training of the TVET students in preparation for the job market.

Rating of effectiveness of institutional operational departmental plans focused on performance appraisal, action programs, trainers' capacity building, and mode of assessment. All these domains were measured using a 5-point Likert scale, with the mean response of 67% affirmation that the institutional operational departmental plans were effective in enhancing employability of TVET graduates in the job market in Nairobi metropolitan counties.

5.2.5 Moderating Effect of Government Regulations of TVET Institutions on Graduate Employability

The study also sought to establish the moderating effect of government regulations of TVET institutions on the relationship between strategy review and graduate employability in Kenya. It was noted that regulations can become either enhancers or inhibitors of growth and performance

of TVET institutions; hence they should be very clear. At least 59% of the institutions clearly acknowledged the moderating effect of government regulations on strategy review. This implied that TVET institutions need fair and effective government regulatory frameworks in order to be able to offer the best to their students in terms of employability skills.

Five different items were used in rating the role of government regulations on moderating strategy review, including policy dissemination, effectiveness, timeliness, decision making levels, and stakeholder involvement. On average, 84% of those involved in the study expressed their satisfaction of the regulations on moderating strategy review in TVETs in Nairobi metropolitan counties, with the rating ranging between moderately adequate to very adequate. At least 66% of TVET institutions were able to make follow-ups on the employability of their graduates. The TVET establishments that were unable to make follow-ups on their graduates' employment destinations after college cited lack of capacity. However, it was evident that TVET institutions were generally content with the kind and level of skills their graduates received, including entrepreneurial, communication, critical thinking, and problem solving skills.

The government's regulatory role in the TVET sector has seen a number of positive developments in the industry. A recent move by the government to reengineer curriculum reviews by the newly revamped TVET CDACC is testament to the important moderating role played by the government when it comes to the broad question of strategy review in the TVET sector. This has led to an increase of the number of TVET graduates employed in different sectors of the economy due to the right skills acquired in various career fields.

5.3 Conclusions

Based on the research findings, the study arrived at following conclusions:

5.3.1 Influence of Situational Analysis

On the influence of situational analysis in TVET institutions on employability of graduates in Kenya, the study concluded that this was an important element of strategy review that should be embraced by all TVET institutions. However, a number of the institutions were unable to carry out regular situational analysis due to lack of financial and human resource capacities to institute and implement this process in a regular manner and to a right scale. Regression analysis indicated that the P-value was 0.001 which is less than 0.05 ($p=0.001<0.05$) at 5% level of significance, hence concluding that situational analysis had a significant influence on graduate employability.

5.3.2 Influence of Institutional Objectives

Regarding the influence of institutional objectives in TVET institutions on graduate employability in Kenya, the study concluded that the institutions should always have strong objectives which are clearly aligned to their mission. This will enable the institutions to remain focused and remain true to their values as they advance to the dynamic and unpredictable future in the employment sector. Furthermore, with the P-value of 0.002 which was less than 0.05 ($p=0.002<0.05$) at 5% level of significance, it was concluded that institutional objectives had a significant influence on graduate employability.

5.3.3 Influence of Curriculum Implementation Strategies

Concerning the influence of curriculum implementation strategies in TVET institutions on graduate employability, it was concluded that teaching curriculum is the foundation of any academic institution and must always be linked to the ever-evolving employment market. Furthermore, regular curriculum reviews is healthy for TVET institutions since this process helps the institutions to remain in synch with new job opportunities which may from time to time require unique skills. Also, with the P-value of 0.003 which was less than 0.05 ($p=0.001<0.05$) at 5% level of significance, it was concluded that curriculum implementation strategies had a significant influence on graduate employability.

5.3.4 Influence of Operational Departmental

On the influence of operational departmental plans of TVET institutions on graduate employability in Kenya, the study concluded that independent operational department plans are very essential in strategy review, especially when it comes to specialization and innovativeness. Well-resourced departments are essential in coming up with innovative courses and training programmes that are aligned with the job demands. It also becomes easy to coordinate learning and training activities through different independent departments as opposed when dealing with so many different issues in an institution through one single congested operational unit. With the P-value of 0.000 which was less than 0.05 ($p=0.000<0.05$) at 5% level of significance, it was concluded that operational departmental plans had a significant influence on graduate employability.

5.4 Recommendations on Research Findings

On the influence of situational analysis in TVET institutions on employability of their graduates, the study recommended that TVET institutions should create budgets for regular and thorough situational analysis. This will ensure that they are able to regularly assess their products and services in order to clearly remain updated on the employment needs in various sectors of the economy.

Regarding the influence of institutional objectives, TVET institutions should constantly set clear short-term and long-term goals and objectives which guide them in their strategy review and general development journey. They should also be flexible in terms of setting their priorities based on those objectives and availability of resources for implementation of the same. Even when reviewing courses to be offered, the institutions should not lose the bigger picture of institutional objectives.

Concerning the influence of curriculum review, the study recommended that TVET institutions should be willing to create different departments and allocate them sufficient resources for coordinating registration of students and training them on specific courses. This move will be essential in encouraging professionalism and specialization in training.

5.4.1 Recommendations for Further Research

Further research should be carried out on the factors that constrain strategy review in TVET institutions and how this affect employability of TVET graduates in Kenya. Such a scaled up study should go beyond the metropolitan counties to expose challenges and/or opportunities related to strategy review in the TVET sector and how the opportunities can be better harnessed

and challenges addressed to guarantee better training of TVET students and enhance their employability prospects in different sectors of the economy in Kenya and beyond.

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APPENDICES

Appendix I Questionnaire for TVET Institution

Hello.....

My name is Mustafa Sallaly, a PhD student in Kenya Methodist University (KEMU). As partial fulfillment of my study programme, I am undertaking a study on the **influence of strategy review in TVET institutions on graduate employability in Kenya**, and your institution has been chosen as a very important partner in helping me to get relevant information for this study.

I therefore request you to take some short time to help me complete this questionnaire with as truthful information as possible. Completing of this questionnaire will not take you more than 30 minutes of your time. Your participation is voluntary. Please take your time to fully understand the questions before answering them and ask for any clarifications where you are not sure of what a particular question requires.

I would be very grateful if you could put your signature in the space provided if you agree to participate in the study. You are **NOT** required to write your actual name or any other personal details anywhere in this questionnaire. Thank you in advance.

Respondent’s Signature.....

Date.....

Please tick or write in the spaces provided accordingly

SECTION A: BACKGROUND INFORMATION

1. What is your position in the institution

Principals/Deputy Principals () Registrars () Dean of students for academics () Heads of Departments ()

2. What is your level of experience in years.....
3. Gender **Male** () **female** ()
4. What is your age category? 20-30 years () 31-40 years () 41-50 years () 51+ years ()
5. Level of education diploma () Bachelors degree () Masters () PhD ()
6. Is your institution private or public? **Public** () **Private** ()
7. For how long has your institution been operational
 - 5 years or less ()
 - 6-10 years ()
 - 11-15 years ()
 - Over 15 years ()
8. What is the total student population of your institution?
 - Less than 1000 () 1000-5000 () 5000-10000 () Over 10000 ()
9. In a scale of 5 where *1=not at all satisfied, 2=not satisfied, 3=neutral, 4=satisfied and 5=very satisfied*, to what extent are you satisfied with the student numbers in your institution? ()
10. About how many new students does your institution admit in various programs annually?
 - Less than 500 () 500-1000 () 1000-1500 () Over 1500 ()
11. In a scale of 5 where *1=not at all satisfied, 2=not satisfied, 3=neutral, 4=satisfied and 5=very satisfied*, to what extent are you satisfied with your institution's annual enrolment numbers? ()
12. About how many students does your institution graduate in various programs annually?
 - Less than 500 () 500-1000 () 1000-1500 () Over 1500 ()

13. In a scale of 5 where *1=not at all satisfied, 2=not satisfied, 3=neutral, 4=satisfied and 5=very satisfied*, to what extent are you satisfied with your institution's annual graduate numbers?

()

14. How many different training programmes do you have in your institution?

.....

15. In a scale of 5 where *1=not at all satisfied, 2=not satisfied, 3=neutral, 4=satisfied and 5=very satisfied*, to what extent are you satisfied with tutor/students ratio in various training programmes in your institution? ()

16. If **NOT** 4 or 5 options in question 15 above, explain in your opinion how the situation can be improved.

.....

.....

17. Does your institution receive funding from the government or any donors? **Yes** () **No** ()
Please explain about any nongovernmental donors if any

18. If yes in question 17 above, in a scale of 5 where *1=not at all satisfied, 2=not satisfied, 3=neutral, 4=satisfied, 5=very satisfied, 6=N/A*, to what extent are you satisfied with how much of this money goes into strategy review in your institution? ()

19. Does your institution have infrastructural development policy? **Yes** () **No** ()

20. If yes in question 19 above, a scale of *1=not at all effective, 2=not effective, 3=neutral, 4=effective, 5=very effective, 6=N/A*, to what extent is this policy effective in your institution?
()

21. Does your institution have strategy review policy? **Yes** () **No** ()

22. If yes in question 21 above, in a scale of 5 where *1=not at all effective, 2=not effective, 3=neutral, 4=effective, 5=very effective, 6=N/A*, to what extent is this policy effective in your institution? ()

23. Which employment sector absorbs most of your graduates?

1=public sector () 2=private sector () 3=self-employed () 4= not sure ()
5=others (specify) ()

24. Explain why the sector you mentioned above is employing most of your graduates.

.....
.....

SECTION B: SITUATIONAL ANALYSIS

25. Does your institution carry out situational analysis on regular basis? **Yes** () **No** ()

26. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institution’s situational analysis is often dictated by market trends of skillsets in current employment environment? ()

Please explain your answer above.....
.....

27. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institution’s situational analysis is often dictated by its financial availability/strengths/weakness? ()

Please explain your answer above.....
.....

28. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institution’s situational analysis is often dictated by competitiveness of courses? ()

Please explain your answer above.....
.....

29. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institution’s situational analysis is often dictated by availability of resources? ()

Please explain your answer above.....
.....

SECTION C: INSTITUTIONAL OBJECTIVES

30. Does your institution have clear institutional objectives? **Yes** () **No** ()

31. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institutional objectives are relevant in enhancing employability of students when they finally enter the job market? ()

32. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institution’s mission/vision is geared towards instilling employable skills in students? ()

Please explain your answer above.....
.....

33. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institution’s core values inspire employable skills in your students? ()

Please explain your answer above.....
.....

34. In a scale of 5 where *1=very low quality, 2=low quality, 3=moderate quality, 4=high quality and 5=very high quality*, how would you rate quality of training of students in your institution? ()

Please explain your answer above.....
.....

35. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institution practices entrepreneurial culture to inspire students for better employment prospects? ()

Please explain your answer above.....

SECTION D: INSTITUTIONAL CURRICULUM

36. Does your institution carry out regular curriculum review? **Yes** () **No** ()

37. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institutional curriculum review meets objectives of enhancing students’ employability level? ()

38. How would you rate quality of curriculum review of your institution in terms of the following?

Statement	1=very inadequate	2=inadequate	3=Moderate	4=Adequate	5=Very adequate
i. Applicable content	()	()	()	()	()
ii. Practicals	()	()	()	()	()
iii. Internships	()	()	()	()	()
iv. Industry linkage	()	()	()	()	()
v. Evaluation programs	()	()	()	()	()
vi. Richness of content	()	()	()	()	()
vii. Relevance to the industry	()	()	()	()	()
viii. takeholder involvement	()	()	()	()	()

ix. Employment market () () () () ()

Please explain your answers above.....

SECTION E: DEPARTMENTAL PLANS

39. Does your institution have independent operational departmental plans? **Yes** () **No** ()

40. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that your institutional departmental plans are relevant to enhancing employability of TVET graduates in the job market? ()

41. How would you rate effectiveness of departmental plans in your institution based on the following?

Statement	1=very ineffective	2=ineffective	3=Moderate	4=effective	5=Very effective
i. Performance appraisal	()	()	()	()	()
ii. Action programs	()	()	()	()	()
iii. Trainers' capacity building	()	()	()	()	()
iv. Mode of assessment	()	()	()	()	()

Please explain your answers above.....

.....

SECTION F: MODERATING EFFECT OF GOVERNMENT REGULATIONS OF TVET INSTITUTIONS

42. In a scale of 5 where *1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree*, to what extent do you agree that government regulations moderate strategy review in TVET institutions as a possible factor of employability of TVET graduates in the job market?

()

43. How would you rate the role of government regulations in moderating strategy review in TVET institutions on employability of TVET graduates in the job market based on the following?

Statement	1=very inadequate	2=inadequate	3=Moderate	4=adequate	5=Very adequate
i. Policy dissemination	()	()	()	()	()
ii. Effectiveness	()	()	()	()	()
iii. Timeliness	()	()	()	()	()
iv. Decision making levels	()	()	()	()	()
v. Stakeholder involvement	()	()	()	()	()

Please explain your answers above.....

.....

.....

.....

SECTION G: EMPLOYABILITY OF TVET GRADUATES

44. Do you make follow-ups on your graduates to know about their employability? **Yes () No ()**

45. If yes, how would you rate their employability? *1=Below average (), 2=average (), 3=above average (), 4=good (), 5=very good () 6=N/A*

46. If yes in **Qn 44** above, in the last 5 years, how many of your graduates have been employed?

.....

.....THANK YOU.....

Appendix II University Fieldwork Authorization Letter



KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya
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Fax: 254-64-30162
Email: deanrd@kemu.ac.ke

DIRECTORATE OF POSTGRADUATE STUDIES

March 6, 2023

Commission Secretary,
National Commission for Science, Technology and Innovations,
P.O. Box 30623-00100,
NAIROBI.

Dear Sir/Madam,

RE: MOUSTAFA EL AMIN EL SALLALY (REG. NO. BUS-4-3133-3/2021)

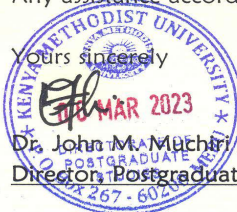
This is to confirm that the above named is a bona fide student of Kenya Methodist University, in the Department of Business Administration, undertaking Doctoral Degree in Business Administration and Management. He is conducting research on; "The Influence of Strategy Review in TVET Institutions on Graduate Employability in Kenya".

We confirm that his research proposal has been defended and approved by the University.

In this regard, we are requesting your office to issue a permit to enable him collect data for his research.

Any assistance accorded to him will be highly appreciated.


Yours sincerely




Dr. John M. Muchiri (PhD)
Director, Postgraduate Studies

Cc: Dean SBUE
CoD, BA
Program Coordinator - BA
Student Supervisors


Appendix III NACOSTI Research Permit


REPUBLIC OF KENYA


NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

RefNo: **879992** Date of Issue: **21/March/2023**


RESEARCH LICENSE




This is to Certify that Mr. Moustafa El Amin El Sallaly of Kenya Methodist University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kajiado, Kiambu, Machakos, Nairobi on the topic: THE INFLUENCE OF STRATEGY REVIEW IN TVET INSTITUTIONS ON GRADUATE EMPLOYABILITY IN KENYA for the period ending : 21/March/2024.

License No: **NACOSTI/P/23/24411**

879992
Applicant Identification Number


Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

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