

## Building Resilient TVET Institutions in Kenya amid the COVID-19 Pandemic

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### Abstract

*A country's economy depends on the proportion of educated and skilled workers in the labour market. Technical Vocational Education and Training (TVET) prepares the youth to enter the labour market by developing skills, knowledge and attitudes. A 2015 study by the Organization for Economic Co-operation and Development (OECD) on labour market mismatch and labour productiveness reported that the industry could not find people with the right skills. Additionally, in a study by Dalberg in 2019, the respondent stated that it was difficult for youth to transition from education to employment as they lacked the skills and experience needed by employers. This situation has been exacerbated by the COVID-19 pandemic, which led to almost a yearlong closure of educational institutions in Kenya. This disruption affected over 2,000 TVET institutions and half a million youth. Unlike other forms of education, TVET heavily depends on practical training which was made impossible by their closures for about 10 months in 2020. This paper will explore the impact of COVID-19 on TVET training and the response mechanisms employed by TVET institutions both in the short term and in the long term. The study combined knowledge generated from a desktop literature review and primary data based on a random sample of 211 TVET institutions targeting 315 trainers and 644 trainees in all the 8 regions. Emerging evidence on the effect of this closure points to youth despair indicated by drug abuse, school dropout cases, and early pregnancies. The study recommends practical measures that will ensure continued learning even amid a pandemic. It further recommends implementing a hybrid model of training that emphasizes technology that will lessen the impact in the future.*

**Key words:** *CBC implementation, material resources, COVID-19 crisis*

### Introduction

Scientists and researchers have reported that the COVID-19 pandemic, though is not welcome, is here for the long haul (MPI-SHH, 2020). Wearing masks, sanitizing, and intermittent lockdowns are our new normal. Even though much progress has been made by rolling out various vaccines, the variants and mutations may undo the milestones covered. As uncertainties persist, it is essential to adapt and become more resilient

When the COVID-19 pandemic struck, the education ecosystem was paralyzed (Kathula,2020). On March 15th 2019, the government closed all learning institutions in a bid to contain the spread of the virus. Schools and universities turned to remote learning but Technical and Vocational Education and Training (TVET) learning came to a hard stop. TVET institutions exist to impart technical and practical skills to students, which is mainly acquired through hands-on experience. UNESCO– UNEVOC (2013a) has further expounded the role of TVET, stating its primary mandate is to develop trainees for the work environment and offer them the skills needed to access and retain decent (self-employment). TVET training supports efficient transition to the labor market. It requires for the students to undergo work based training to complete training.

Remote learning has challenged the very core of TVET training and assessment and laid bare its weaknesses. The TVET practical nature of learning by doing forced them to innovate and grow. The closures significantly affected the lowest tier of formal training, the vocational training centers (VTCs). Ngware et al (2019) have characterized VTCs in Kenya as poorly funded, having low uptake of technology, poorer students and poorly trained instructors. Training at this level is purely practical to ensure that it accommodates those who may not possess literacy and numeracy skills. On the other hand, the higher levels of TVET; the technical training institutions, national polytechnics and universities, offer a higher level of practical training using costly machinery and technology.

Over the years, the government of Kenya has channeled funding towards technical and vocational training, hoping that it will solve the unemployment crisis in Kenya and Africa at large. In Kenya, the youth make up 35 per cent of the population and have the highest unemployment rate of 67 per cent (UNDP, 2013). The World bank has estimated that the population in Africa will double by 2050, meaning that globally, 1 in 4 people will be from Sub-Saharan Africa. This is bound to sharply increase the youth bulge. Lin (2012) has defined the youth bulge as a demographic pattern where the bulk of the population is comprised of children and young adults. He presents the youth bulge as both an opportunity and a challenge for the African countries; when the youthful population is well trained and empowered, it is a valuable asset for national development and will spur social, political and economic growth. However, when the youth are not gainfully engaged, they become disruptive and disempowered.

Equipping first-time job seekers with the skills needed to make a smooth transition from school to work is a daunting task. Memedovic (2004) states that it will be essential to ensure that the industries form global value chains and production networks. However, the lengthy closures of the training institutions might lead to youth despair and drop out from the institutions and create a ‘COVID-19 generation’.

This will be a generation of workers who are unskilled and underemployed. To prevent this from happening, the TVET institutions need to invest in a raft of strategies to ensure it is resilient enough to continue offering quality training to its trainees and prevent it from any shock that might halt its operations.

This paper explores these strategies that will offer policy and practice directions to see this to fruition.

### **Purpose of the Study**

The general objective of the study was to investigate the factors influencing the building of resilient TVET institutions amidst the COVID-19 pandemic

### **Objectives of the Study**

- i. To establish the effects of COVID-19 to TVET training
- ii. To examine the response mechanisms to COVID-19 in the short and long term by TVET institutions.

### **Significance of the Study**

This study will be of significance to education stakeholders, key policy makers and researchers in the education realm. To the education decision makers, the study will help in strengthening the resilience of education systems so as to respond to immediate challenges of institutions and position the TVET institutions to better cope with future crises. The results from this study will help policy makers, demand for reforms that re-evaluate and design TVET systems and curriculum in ways to build innovative ways of responding to COVID-19 crisis. Researchers will benefit from this study as they will seek to strengthen the preparedness and resilience of all TVET institutions. It is clear that the COVID-19 disruption has provided an opportunity for the growth of more flexible learning solutions that make better use of distance learning and digital tools.

### **Literature Review**

Majumdar and Araiztegui (2020) have classified the response of TVET institutions to COVID as immediate, middle-term and long-term. The immediate response has been highlighted as the initiatives that have employed technology for continuance of learning, using schools as production units, and supporting public information and awareness. In the middle term response, TVETs focus on the measures that could be put in place to effectively prepare for a future crisis.

This includes repositioning to support workforce retraining, supporting community-based solutions, strengthening local industries, preparing for flexible learning solutions, and including pandemic risk in planning. In the long term, TVET institutions should reflect on the society that we live in. TVET institutions should embrace social justice, environment and local development for learning and have the Sustainable Development Goals (SDGs) as an overarching principle.

The ILO (2021) survey on skills development in the time of COVID-19 has revealed the following as obstacles in the provision of training to TVET learners; lack of general and technological infrastructure: electricity, internet, connectivity and devices, lack of effective and user-friendly distance learning platforms, lack of staff capacity to support distance learning through quality pedagogical resources and financial resource constraints.

The Commonwealth of Learning (2020) publication has underscored blended learning in TVET as a key response to COVID-19. They have defined blended TVET as the practice of building competence in knowledge and practical and soft skills using both physical and technological learning platforms. This strategy is beneficial as it increases access, reduces costs, improves quality and increases inclusion of marginalized groups.

A study conducted by UNESCO-UNEVOC (2020) highlights that to build TVET institutions that are resilient in light of the COVID -19 new normal, there is a need for a change across the TVET systems. This will include developing new policies, upgrading ICT infrastructure, and a national platform with quality course materials. It will also be essential to change the mindset of the teachers, students and the TVET institutions.

## **Research Methodology**

Research methodology is the orderly, hypothetical analysis of procedures useful to a field of study (Kothari, 2004). It involves describing, explaining, and foreseeing occurrences to solve a problem. A cross-sectional survey design was adopted for this study. A cross-sectional survey involves collecting data at one point in time from a target group (Borg & Gall, 1996; Wiersma & Jurs, 2009). The main interest is the accurate measurement of the characteristics of the whole population.

The study consisted of a random sample of 211 TVET institutions across the country in the four different levels of TVET; Vocational Training centers, Technical Vocational Colleges, National polytechnics, and Technical Universities. This consisted of 165 Vocational Training Centers, 33 Technical and Vocational Colleges, 9 National Polytechnics, and 4 Technical Universities. The study adopted a mixed method (Qual-Quan) approach to collect and analyze data.

The research entailed data collection, analysis, and collating quantitative data through questionnaires administered online (Google forms) and qualitative data through desk reviews. This method was suitable as it provided comprehensive and complementing data to better understand the topic of research. From that, the response received was from 315 TVET staff and 644 students from the TVET institutions.

## **Findings**

### **Response Rate**

The composition of the study participant included 315 trainers and 644 trainees, making up 959 respondents interviewed. Of the 959 respondents interviewed, 68.4% were male, and 31.6% were of the female gender. This shows that there were more male respondents than female that took part in the study as shown in table 1.

Table 1

Study Participants by Gender

<b>TVET Level</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Technical Universities	71	33	104
National polytechnics	202	122	324
Technical Training Institutes	182	54	236
Vocational Training centres	201	94	295
<b>Total</b>	<b>656</b>	<b>303</b>	<b>959</b>

### **TVET Composition**

According to the TVETA website, there are 1899 registered TVET institutions. Of these, 211 institutions were randomly selected to be part of the study.

From the total TVET institutions that participated in the study, 87.7 % were public, while the remaining 12.3% were privately owned institutions. The composition of the respondent institutions, 62% were from Technical Training Institutes, 27.6% were National Polytechnics, and 8.4 percent were Vocational Training centers, while 1.1% were Technical Universities. This shows that the most respondents were from Technical Training Institutes and the least being from Technical Universities

### **Effects of COVID-19 on TVET Students**

The majority of the participants at 40% believe that school closure has led to stoppage of learning and would lead to delay in taking exams and completion of studies.

Twenty five per cent of the participants felt that the pandemic brought about psychological challenges to the students such as stress, depression and anxieties brought about by the fear of the unknown. Fifteen per cent of the participants felt that COVID-19 led to issues of gender-based violence and early pregnancy among the students. Thirteen per cent of them felt that the pandemic brought about by idleness among the youth and has pushed them into drugs and substance abuse. Lastly, 7% felt that the pandemic brought to fore the challenge of inequalities in training since not all students could join online training. This shows that stoppage of learning was the greatest effect followed by psychological challenge, fear of the unknown, drugs and lastly inequalities respectively

### **Effects of COVID-19 on TVET Staff**

The majority of the participants at 33% believe that the school closures have led to loss of jobs because most of the institutions could not sustain their staff while not receiving the income from training fees. Twenty four per cent of the participants felt that the pandemic brought about

economic hardships attributed to the loss of jobs and reduction of remuneration. The participants who felt that the disruptions in physical learning caused by COVID-19 has led to ineffectiveness of training as many trainers lacked the required skill set for remote teaching were 17%, while 13% believed that psychological stress affected their morale and continuity of learning

### **Responses of TVET Institutions to COVID-19**

The findings indicated that 50.4 % of the TVET institutions had not reached their students in any way since the schools were closed. This shows that many institutions did not manage to reach out to their students during the school closure period.

COVID-19 has forced the TVET institutions to draft strategies that would ensure their resilience to it and any pandemic that might come in future. From the study, we established that 49.6% of the TVET institutions had attempted to reach their students remotely, less than 20% of the TVET trainers could facilitate online learning, and only 7% of the TVET institutions had online portals to facilitate training. A majority of the students were constrained by the cost of internet, power connectivity and lack of gadgets.

Of the 105 (49.6%) institutions who had reached out to their students, 36% reached out to them through online classes Google Hangouts, Skype, Adobe Connect, Microsoft Teams, and few more. ZOOM emerged as a clear winner agreeing with Saxena, (2020).

Thirty per cent called or sent a text message to their students either for moral support or sending assignments. Seventeen per cent reached out through social media, 11% and 6% reached out to them through pre-loaded materials on devices and emails, respectively.

### **Building Resilient TVET Institutions**

The study explored the various ways in which the institutions could ensure resilience within their learning and training centers. They were grouped into three;

Technological factors entails technology that are both a blended learning and traditional learning that are used in the learning process (Muniasamy et al. 2014). The strategies are technological interventions that can be applied to ensure training continues.

Government factors are government interventions that they put in place to ensure things run smoothly, in the TVET sustainability, they are the interventions that will ensure sustainable education even in the time of pandemic.

Institutional factors are those factors that the institutions need to put in place to ensure there is sustainability

- a. Technological strategies. The purchasing of modern technology was the highest ranked by the respondent to ensure sustainable TVET by response of 34%. Twenty nine per cent of the participants felt instructors and trainees' capacity building on ICT was a key factor. Those who felt that investing in Open and Distance e-Learning was critical rated at 22%, with 15% stating that training with technology was an important factor.
- b. Institutional strategies. On institutional factors, the study established that employing a blended approach to learning was the greatest institutional strategy in ensuring resilience at 31%; while 30% felt investing in production unit was a key factor; 20% of them felt that investing in learning management system was critical; and 19%
- c. stated that building partnerships for ensuring training was an important factor. Governmental factors. The governmental strategies from the findings showed that development of policies that supported digitization was the greatest institutional strategy in ensuring resilience at 33%; 30% felt that providing financial support from the government to both public and private institutions was a key factor; 20% felt that creating a central repository for TVET was critical; and 17% stating that proper staffing was a good strategy in ensuring resilience.

## **Conclusion**

According to FAWE, (2012). TVET institutions have been credited as the drivers to the achievement of the Sustainable Development Goals. However, TVET institutions use the practical learning approach, which was adversely affected by the pandemic. There was an array of detrimental effects on both the staff and students, ranging from psychological stress, loss of learning, loss of income, and economic hardship. This aligns with the study done by CAPYEI that showed that the pandemic affected the TVET institutions financially, psychologically and socially (CAPYEI, 2020).

TVET institutions remain behind in achieving some level of resilience. There is a raft of measures that need to be put in place to ensure that they stay afloat even in the midst of a pandemic. The study divided them into technological factors, institutional factors and government intervention factors. This study is in agreement with ILO report stating that the TVET institutions reveal weak resilience, with around 53% that do not have any form of digital training systems with the rest having moderate use of IT in instructions delivery (ILO, 2021)

The TVET system is the future - it is the tool that will ensure youth employability and employment. Therefore it needs to be supported to grow its resilience in the face of adversity. This would lessen the negative impact of disruption of training in the face of a pandemic. Governments need to put more emphasis on interventions that will mitigate the risk that comes with uncertainties like the COVID 19. Institutions have a role to play in ensuring learning continues and for this there is need for them to put up proper strategies to ensure that TVET institutions are capable of handling any shocks that come their way.

## **Recommendations**

The study recommends that the institutions embark on robust development by implementing use of technology in their training. This will ensure the trainers' and the trainees' capacities are built to offer distance and digital training. They should also adopt change management practices that encourages the institutional managers to be forward thinkers and investors in production units and partnerships that will establish blended learning for the all TVET students. To the government the study recommends focus on facilitating access to online contents and on strengthening of digital competences among TVET trainers so as to reach as many students as possible over the period. The government should develop policies that are pro digitization of TVET system which will enable institutions to offer distance learning that will not require students to always be at the learning enter to acquire skills.

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