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## **The Competence and Employability of Public Technical and Vocational Education and Training graduates in Khartoum State - Sudan**

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**Abstract.** This study's primary purpose was to examine public institutions' TVET graduate's competencies and employability in Khartoum State. To this end, the study used an explanatory sequential mixed method design. The researchers used primary and secondary sources of data. The primary sources were students, teachers, managers, and directors, whereas the secondary data were relevant policy documents. Eight hundred fifteen respondents from 12 TVET institutions were selected using stratified, simple random, and purposive sampling. Data collection instruments were questionnaires, a semi-structured interview guide, and Focus Group Discussions (FGD). Quantitative data were analyzed through descriptive (mean scores, standard deviation) and inferential statistics (one and two-sample t-test). The qualitative data were evaluated and interpreted with narration. The study found that graduates have fair competence and good employment opportunities. The study draws recommendations to policymakers and the TVET practitioners based on these results.

**Keywords.** Competence, Employability, TVET graduates

### **Introduction**

TVET plays a vital role in promoting economic progress, and it has become one of many country's ambitious goals to produce trained and semi-skilled workers for a variety of industries (Khivotdin et al., 2019). According to Budhrani et al. (2017), TVET is gaining popularity worldwide because it may boost impoverished people's production and income, improve jobless people's employability, and help present workers transition to new jobs.

Brewer (2013) asserts that skills development is crucial for improving enterprise productivity, sustainability and working conditions, and the employability of workers. Young men and women must have the technical ability to carry out specific jobs and the core skills of their work: apprenticeships, communications, problem-solving, and teamwork. He further added core skill development, worker rights knowledge, and a concept of entrepreneurship are the foundations for lifelong learning and the ability to adapt to change (Brewer, 2013).

According to Mesuwini et al. (2020), there appears to be a gap between the skills gained by TVET graduates and the skills required by the industry. Addressing this gap is critical because it makes TVET graduates relevant to the industry. Employers need graduates who are prepared to enter the workforce and have the skills necessary for long-term employment. TVET universities and industry should work together to ensure that graduates have the essential

abilities. However, TVET institutions lack the competence and legitimacy to interact with industry on an equal footing. On the other hand, employers are hesitant to collaborate with universities because they lack confidence in the college's capacity to generate excellent graduates. (Mesuwini et al., 2020)

The ultimate goal of TVET education is to provide students with information, attitudes, and marketable skills for long-term growth. The acquisition of life-long employable skills necessitates effective and efficient teaching techniques, upgraded and standard instructional equipment, appropriate content, and high-caliber teachers. Students can acquire skills when TVET institutions are sufficiently funded, equipped with proper facilities, and well-staffed with qualified and experienced Tutors who use effective and efficient teaching methods. (Anindo et al., 2016)

For Yamada and Otchia (2020), one of the reasons for the low rate of graduate employment is a mismatch between acquired skills and employer expectations, which is caused by TVET institutions' and curricula's inability to keep up with the fast pace of change in the economy and the resulting changes in demanded skills. They argued that students are being assigned to TVET programs proportionally based on the labor development strategy, without regard for their choices. Students who are compelled to gain skills in a field that they do not want to work in have little drive to hunt for jobs in that field (Yamada & Otchia, 2020)

The core employability abilities, such as reading and writing (knowledge), technical capabilities required to execute specific jobs (skills), and personal traits such as honesty, dependability, and time management, are built on and strengthened by primary education (attitudes) (Suzuki & Sakamaki, 2020).

It is commonly acknowledged that developing employability skills is a vital component of TVET. True, the lists of employability abilities vary by country; nevertheless, they are all connected to broad abilities prized by businesses and those that assist individuals in obtaining employment and advancing successfully during a working career (Pavlova, & Huang, 2013)

According to Fraser et al. (2019), employability skills need a place in the classroom; their instruction must be explicit and integrated. He proposed three approaches to teaching employability skills: complete embedding, parallel development, and direct embedding. Abu Raihan (2014) suggested that collaboration between TVET institutions and industry can be formed in five major areas: (1) development of curriculum and learning materials; (2) training instructors; (3) provision of practical training in the workplace; (4) facility improvement in schools/centers; and (5) employment opportunities. Fraser et al. (2019) outline a set of primarily group-based learning activities that can assist students in developing employability skills and may be modified to various situations.

This article is part of research that used an input-process-output framework. Consequently, this paper aims to examine the competencies and employability of TVET graduates in the study area. Specifically, the paper attempts to answer the questions (1) the perception of the research participants about the competencies of TVET graduates and (2) How much is the employability of TVET graduates?

## **Literature review**

### **Output Indicators**

Keh (2009) includes outcomes indicators in terms of (Professional success of graduates, regional development, needs of employers, development of the nation). Carron et al. (2010) classified output as learners' results indicators comprising acquisition of knowledge, skills, values, and attitudes. They appear in terms of pass rates at national examinations; achievement scores on standardized national or international tests. Most educators believe that an acceptable

definition of educational quality must be related to the achievement (output) of the students as their basis (Derebssa, 2006). As a measure of the quality of the school, parents assign more importance to educational outcomes than students, teachers, or principals (UNICEF, 2000). School outputs are not restricted to student performance but may have an extended social effect (Organisation for Economic Co-operation & Development, 2005). Output indicators are considered the more direct schooling outcomes, often measured using standardized achievement tests (Scheerens, 2011).

TVET experts always link quality to the achievement of learning outcomes such as knowledge, skills, and competencies gained at the end of the learning process that meets the expectations of key stakeholders (Ayonmike et al., 2015).

The outcomes are represented in the graduates' successes, their position in the labor market after graduation, and their satisfaction and employers (Masson et al., 2010). Scheerens (2016) categorize output indicators into direct outputs, achievement test scores, attainment outcomes, in the sense of (success rates, drop-out rates), and impact indicators that would describe the social success of individuals who have achieved those levels of education. Seyfried et al. (1999) compare goals and perform the process, leading to a black box. These output-related evaluations examine the adequacy and effectiveness of a specific program against the a priori definition of the different quality aspects that can be observed and measured using the corresponding indicators.

Van den Berghe (1996) asserts output evaluation methods conclude the success, impact, or satisfaction of the trainees on the quality of the TVET activity: the immediate outcome of the course, the skills learned, the completion rate of the study, the improvement of productivity, etc. he further added, typical output assessment methods are participating surveys, test results analysis, self-assessment methods, work performance improvement assessment. A particular case of output assessment examines pupils/trainees, which is standard in the initial TVET.

The employability of TVET graduates is an example of the outputs of the TVET system. In the 21st century, employability is the most required skill besides technical knowledge to compete for employment and sustain jobs in the global industrial market (Ismail, & Mohammed, 2015). Seyfried (2007) declares employability refers to the person and his or her responsibility to comply with employment requirements. It also refers to the whole labor relations system, including business practices, which provide incentives and represent expectations to some extent. Employability signifies the ability for employees to work: it concerns not only the adequacy of their skills but also individual incentives and opportunities for the pursuit of three main employability factors: recruitment and search strategies of the labor market players; the situation and activities of actors intermediaries, like public and private employment agencies; and public demand and terms of production (Seyfried, 2007).

For Neroorkar and Gopinath (2019), employability consists of four components: The first component is collecting hard human skills. It involves the scientific and professional skills gained through formal schooling and practice. The second aspect is the collection of soft competencies, including leadership skills, preparation, decision making, teamwork, and problem-solving. The third aspect includes personal characteristics, such as emotional intellect, temperament, integrity, and diligence. The last factor involves knowledge and expectations about the profession. The three primary skills of employing people than hard skills in developed countries are communication, problem-solving, and interpersonal competence. There are three categories of employability skills in the literature worldwide: core, generic, and personal skills (Ismail & Mohammed 2015).

Seyfried suggests improving employability involves improving skills and human capital and removing a whole range of obstacles to people's access to jobs, stable employment, or

earnings. As the concept is highly contextual, TVET contributes not only to employability. Consequently, he suggested that it can not ascribe the TVET quality directly through overall employability measures (Seyfried, 2007).

Sudan's labor market data refers to three main policy priority groups which may have an impact on job creation in Sudan: i) macroeconomic and sectoral policy and its effect on the creation of jobs through support for small- and microenterprises and the social economy; ii) training and job-market conditions related policies and policies to improve employability, and iii) labor market policies and institutions to fill the gap between work supply and job demand and to safeguard workers' welfare (International Labor Organization., 2014).

### **Outcome-Based Approach as a Function of Quality**

Spady (1994) defined outcome-based education and training as "clearly focusing and organizing everything in an educational [and training] system around what is essential for all students to be able to do successfully at the end of their learning experiences" (p. 1). He further explained the meaning of outcomes to include action and performance that embodies and represents learner competence ineffective content, information, ideas, and resources.

There is a shift from institution-based and program-based assessment to learner-based and competence-based assessment (Charraud & Werquin, 2011). Learning outcomes are used to describe knowledge, skills, and competencies within the context of outcomes-based qualifications frameworks (Chakroun, 2019)

In this strategy, according to Seyfried (2008), the key elements to increase the importance of vocational training include recognizing emerging job abilities in use and demand in today's labor market. And, distinguishing them in terms of skills and integrating them into training programs provided close cooperation with relevant professional and private organizations. According to the Edukans Foundation (2012), TVET reorganized into an outcome-based system, with skills and competencies identified as on-demand in the labor market informing TVET's design and content. We shall measure quality through an evaluation of the achievements of the learners. The new paradigm in the result-based TVET system is the orientation of the economic and labor market's current and anticipated future demand (Edukans Foundation, 2012).

Hoque (2016) declared that if TVET program outcomes measure quality, qualifications are the most significant aspect. It is argued that any TVET program leading to qualifications must include specific standard components. The fundamental justification for using outcome-based education and training, according to Killen (2000), is that it will help all learners do difficult things well. It can also provide administrators with some level of control over educational outcomes and, at the same time. It gives teachers a wide degree of freedom to choose the content and methods by which they can help their students achieve those outcomes.

For TVET providers and employers, outcome-oriented curricula may provide a powerful forum for bridging the worlds of education, training, and employment, offering a shared language between competencies learned through school and the needs of professions and the labor market (European Centre for the Development of Vocational Training, 2010). In outcome-based education and training, you develop the curriculum from the outcomes you want students to demonstrate, rather than writing objectives for the curriculum you already have (Killen, 2000)

According to Killen (2000), if teachers want all students to learn well and achieve specific outcomes, they must follow certain instructional procedures. Each has implications for teachers' plans and programs: First, teachers must prepare their students adequately to succeed. Second, teachers must create a positive learning environment. Third, teachers must help their

students to understand what, why to learn and how they will know when they have learned it. Fourth, teachers must use a variety of methods of instruction. Finally, teachers must provide students with sufficient opportunities to learn.

There are newly established VTCs with CBE system in Sudan as part of The European Union support to many developing countries as they reform their vocational educational systems. The principal aim here is to improve the internal effectiveness and efficiency of the existing systems (Wallenborn, 2009). The United Nations Industrial Development Organization (2010) argues the real reason behind this EU fund is to contribute to the skill development in the country. Hence, people grantee decant work and fair salaries, which leads to stability and less migration. The project's overall aim was to improve the livelihood of the urban poor (unemployed youth and IDPs) in Khartoum State. It aimed to provide market-oriented skills and entrepreneurship training to the young urban poor; upgrade the skills of existing micro and small enterprises for greater productivity and competitiveness. Also, boost the labor market's technical skills for greater employability and possibilities of self-employment. These VTCs do not provide apprenticeship programs but implement newly introduced competency-based learning at levels 1 and 2, each stage involving a 9-month center-based training (Ibrahim et al., 2013).

## **Methodology**

### **Design**

The study employed an explanatory sequential design of the mixed approach. According to Creswell (2012), the reason for this design is that the quantitative section describes the problem under study, while the qualitative section clarifies and expands the overall picture to explanations. Another possibility is that qualitative instruments provide additional information to supplement the quantitative statistical results obtained in the first step (Creswell, 2012). At the same time, the numerical results and their accompanying review provide a good general understanding of the research topic. While the qualitative data and their interpretations clarify and describe these statistical results by delving deeper into the researchers' opinions. (Ivankova, Creswell & Stick, 2006).

The researchers used the mixed-method because it was believed to help collect the data from different TVET stakeholders (students, teachers, managers, and directors). It is helpful to gather quantitative data using a questionnaire from students and teachers, the primary TVET informant. Also, to increase the understanding and avoid the disadvantages of the questionnaire, qualitative data through interviews and FGD were used.

### **Population and Sampling**

According to (National Council of Technical & Technological Education, 2018; UNESCO, 2018, p.21), Sudan has 239 public TVET institutions, with 31 of them in Khartoum State. There are 26 technical institutions (technical secondary schools and artisan institutes) and five VTCs. There are approximately 672 teachers/trainers and 6532 students/trainees in these institutions.

There are 31 TVET institutions in Khartoum, divided into three types (technical schools, artisan institutions, and VTCs). The researcher chose twelve for the study using stratified and simple random sampling. The researcher chose twelve institutions based on the number of teachers and students in each, four technical schools, four artisan institutions, and four VTCs. The sampling technique includes the unique characteristics that the researcher sought to have in the study. The target stratum is reflected in proportion to the population.

A total of 550 students and 320 teachers were included in the sample. Yamane's (1967) formula, as cited in (Glenn, 1992) was utilized to determine the sample size:

$$n = \frac{N}{1 + N(e^2)}$$

Where: n =sample size, N =Population size, and e= level of precision 0.05

When the formula is applied to the population size 6532, we get 377 samples. Then the researcher intentionally maximized the sample size to avoid nonresponse or lost questionnaires for any contingent reasons.

In addition, for the second questionnaire about TVET graduates' competencies, I chose 31 TVET industrial experts and managers (12 experts from the 12 selected TVET institutions plus 19 managers and deputy managers).

To determine the size of strata, I follow the proportional allocation method. As described by Creswell (2012), it allows a proportion of high representation in the total population. To determine strata sample sizes, the researcher following the equation (as cited in Sarmah Hazarika & Choudhury, 2013):

$$n_i = n \frac{N_i}{N}$$

Where n represents sample size (students, 550) (teachers, 320),  $N_i$  represents the population size of the  $i^{th}$  strata, and N represents the population size = (students, 6532) (teachers, 672). The following Table 1 shows the strata size for each TVET institutions:

**Table 1** *Sample Size*

Occupations	Population		Sample Size	
	Students	Teachers	Students	Teachers
<b>Technical Education</b>	1766	183	149	85
<b>Artisan</b>	2796	326	236	155
<b>VTCs</b>	1970	163	166	78
<b>Total</b>	<b>6532</b>	<b>672</b>	<b>551</b>	<b>320</b>

The valid collected questionnaires were 491 for students and 285 for teachers, representing 89.1% and 89%, respectively, from the targeted sample

### **Instruments**

First, quantitative data on TVET quality were collected using a questionnaire developed by the researcher. The questionnaire was distributed to selected TVET teachers and students in Khartoum State to assess graduates' competence and employability skills in public TVET institutions. A semi-structured interview with the principals and managers of TVET institutions and employers was used to collect qualitative data. Also, a focused group discussion with both teachers and students was held to confirm their questionnaire responses.

The questionnaire consists of 14 items with five-point rating scales (1 = very poor to 5 = very good). To determine the reliability of the study questionnaire was piloted at Ombada technical school. The school is excluded from the study. The researchers administered a pilot test for the questionnaire to 27 random students and 19 teachers to ensure clarity.

Reliability was calculated through the Alpha coefficient of reliability (Cronbach's Alpha) described by Whitley and Kite (2013) as the statistic most commonly used to assess internal consistency. Changes were made based on the pilot test to produce valid and reliable instruments. The researchers used the Statistical Package for Social Sciences (SPSS) to calculate alpha. Alpha scores for the items were .927 and .944 for teachers and students, respectively. Moreover, they were .929 and .909 after data collection. According to Cohen et al. (2007), the reliability level of 0.67 or above is acceptable. Table 2 shows the Cronbach's Alpha scores.

### Data Analysis

Various methods were employed to analyze the data collected from different sources and based on their specific nature. The questionnaire was coded and entered into the SPSS and was quantitatively analyzed using mean, standard deviations, one and two samples t-test. The qualitative data collected from the interview and the FGD were evaluated and interpreted with narration to complement the questionnaires' data.

### Results

**Table 2** *The Demographic Characteristics of the Study's Participants*

Participants	Characteristics	Experts		Teachers		Students	
		#	%	#	%	#	%
<i>Gender</i>	Male	27	87.1	228	80.3	400	81.5
	Female	4	12.9	56	19.7	91	18.5
<i>Qualifications</i>	MA/MSc	1	3.2	1	0.3	-	-
	BA/BSc	10	32.3	48	16.7	-	-
	Diploma	19	61.3	218	76.0	-	-
	Below Diploma (mis)	-	-	16	5.6	-	-
<i>Professions</i>	Civil eng	9	29.0	83	29.1	42	8.6
	Electrical	5	16.1	45	15.8	50	10.2
	Mechanical	9	29.0	75	26.3	245	49.9
	Air conditioning	1	3.2	29	10.2	41	8.4
	Technical Education	1	3.2	6	2.1	-	-
	Law	1	3.2	-	-	-	-
	Home economy	1	3.2	12	4.2	30	6.1
	Edu Technology	1	3.2	-	-	-	-
	Trading studies	-	-	10	3.5	21	4.3
	Computer science	-	-	7	2.4	62	12.6
	Electronics	-	-	2	0.7	-	-

### Graduates Competences

In this section, respondents were asked to rate the TVET graduate's competencies. The scale was five points (very poor; poor; fair; good; and very good). The results presented in Table reported mean value is (3.079) more than the test value (3). It indicates that the participants perceived that TVET graduate's competencies are fair.

**Table 3** One sample t-test on the Graduates Competence as Perceived by Teachers & Experts

	Test value = 3					
	N	Mean	SD	t	Df	P -Value
Graduates Competence	316	3.079	.614	2.298	315	.022

The interview responses also supported the findings from the perspectives of TVET managers. Students graduate with a reasonable level of competence. They believe that while their institutions provide students with the necessary skills to enter the labor market, it is the student's responsibility to prove their existence, develop themselves, and expand his or her opportunities. They guarantee that TVET graduates with more training have better job opportunities than their academic counterparts.

In addition, as shown in Table 4, an independent t-test was conducted between teachers and industry experts to compare their responses on TVET graduates' competence. To that end, the t-test result revealed a marginal difference between the two groups ( $t = -2.788$ ,  $df = 720$ ,  $p = .682$ ,  $d = -.52$ ). TVET experts and managers have a higher mean score ( $M = 3.36$ ,  $SD = .582$ ) than teachers ( $M = 3.04$ ,  $SD = .610$ ). It indicates that TVET graduates have fair competence in the eyes of teachers, industry experts, and managers.

**Table 4** Independent t-test between Teachers and Industry Experts on TVET Graduates Competence

Variable	Levene's Test for Equality of Variance		t-test for Equality of Means				Cohen's d
	F	Sig.	t	df	Sig. 2-tailed	Mean Differ	
Graduates competence	.168	.682	-2.788	314	.006	-.320	-.52
			-2.897	37.551	.006	-.320	

The interview data back up the previous results; managers believed that their institutions provided students with the needed skills to enter the labor market; it is up to them to prove their existence, develop themselves, and expand their opportunities. Furthermore, they stated that TVET graduates have a higher chance of employment than others because it costs companies less money.

Both interviewee company managers described TVET graduates' ability to perform assigned tasks as a medium, and they required training and ongoing training to cope with the work environment. According to one of these managers, the adequacy of graduates' competencies in labor-market needs is considered weak. According to these companies, manager TVET graduates cannot typically handle mechanisms and tools in the field of work, read instructions about work or machines, become familiar with industry-related terms and abbreviations, English language skills, computer skills, and the fundamentals of safety.

### Employability Skills

The researcher examined student perceptions and aspirations for training in TVET institutions to indicate their employability skills. The researcher asked participants to rate seven items on a five-point scale (1 representing very low to 5 very high). The mean scores for

teachers and students were (M= 3.46, SD= 0.628), (M= 3.37, SD= 0.928), and (M= 3.37, SD= 0.928), respectively. It indicates that both teachers and students place medium to high value on employability skills.

**Table 5** One sample t-test on the Employability Skills in TVET Institutions as Perceived by Teachers & Students

	Test value= 3					
	N	Mean	SD	t	Df	P -Value
Students Employability Skills	776	3.435	.855	14.191	775	.000

Independent t-test between teachers and students result showed modest difference between the two groups ( $t = 4.526, df = 774, p < .001, d = 0.33$ ).

**Table 6** Independent t-test between Teachers and Students on Student Employability Skills

Variable	Levene's Test for Equality of Variances		t-test for Equality of Means				Cohen's d
	F	Sig.	t	df	Sig. 2-tailed	Mean Difference	
Employability Skills	37.698	.000	4.526	774	.000	0.284	.33
			4.933	740.949	.000	0.284	

Students from FGI demonstrated high aspiration and a positive perception of TVET. For example, (Production Student) stated that after finishing his grade exams, he informed his parents about his desire to attend a TVET institute because he aspires to be like his relative, who graduated from VTC and landed an excellent job good salary. Similarly, students and graduates from automobiles return to TVET after beginning their studies at academic institutions. According to Manager 8's interview, "there is a great desire behind it the preference companies and factories to our graduates who can be developed."

All interviewee managers and the FGD of teachers and students confirm that TVET students have positive perceptions of training, high aspirations, and good employability skills. There is an intense desire for companies and factories to prefer TVET graduates who can be developed. It was confirmed by one of the interviewed company managers. They stated that they prefer to hire TVET graduates because they have the fundamental skills and can prove themselves with additional training. Another reason for the increased desire to join TVET is the opening of opportunities to enter universities.

### Discussion

The study sought to investigate TVET graduates' competence and employability. The findings revealed that the participants (experts, managers, and teachers) thought TVET graduates were competent and had good job prospects. According to the findings of the focus group and personal interviews, participants confirmed the above result. They claimed that students graduate with a reasonable level of competence and that they will be able to cope with

what is available in the labor market. They were given good job opportunities, mainly graduates of craft institutes. According to the managers, some large corporations, such as electricity and Klippehr refrigeration and air conditioning,

The result agrees with Idris and Rajuddin (2012). They investigated the importance and competencies of employability skills among the final year students of the automobile, electrical installation, electronics, and mechanical departments in Technical Colleges of Kano State, Nigeria. The findings of the study indicated that all final year students' employability skills components were rated high. This study's results are consistent with those of Ridzwan et al. (2017). Their findings revealed that TVET graduates in Malaysia had high professional knowledge, skills, and practice. The results of this study also seem to agree with the conclusions of Kazilan et al. (2009), who found that Malaysian TVET students had average employability skills.

This study revealed some graduate's competencies such as communication skills, business plan development, project formulation, and management and entrepreneurial competence were poor and rated lowest in the rank.

Nugraha et al. (2020) confirmed that graduates need communication skills because every job requires initiative, flexibility, and the ability to accept different tasks communication is necessary for coordination and instruction, and information back. Without good communication, it will have implications for miss-communication in receiving information. Therefore, communication is considered essential to unite perceptions between workers.

Regarding entrepreneurial competence, as Saibon et al. (2019) show, today's TVET graduates need to be emphasized and encouraged so that they are not only relying on and focusing on gaining a job in the labor market. Instead, they need to be more confident in creating their career opportunities by becoming entrepreneurs. The result aligns with Fraser et al. (2019) findings that revealed the least likely to be observed by his participants were *innovation* and *entrepreneurship*. The study result agrees with Murgor (2017), who argues youth worldwide are often accused of lacking employable and entrepreneurial skills. It is also confirmed with Bedada (2010), who found the magnitude and direction of the difference indicate that the Ethiopian graduates have not internalized the essence of entrepreneurship as expected in the policy. It implies that they lack the know-how of creating their job.

The study examined student perceptions and aspirations for training in TVET institutions as an indication for employability skills. The results revealed that participants perceived students had medium to high employability skills ( $M = 3.435$ ). The qualitative data from FGD of students and teachers confirm the above result. All the participants assured that students show high interest and a great desire to training. Students came in large numbers for admissions to some prestigious institutes, filling the institution's capacity five times. It reflects the students' and their families' strong desire to enroll in TVET institutions. There is an intense desire for companies and factories to prefer TVET graduates who can be developed. It was confirmed by one of the interviewed company managers. They stated that they prefer to hire TVET graduates because they have the fundamental skills and can prove themselves with additional training. Another reason for the increased desire to join TVET is the opening of opportunities to enter universities. Students with high aspirations enroll in TVET institutions. They are aware that they will be required to wear an overall beginning on their first day here and that there will be no more theoretical subjects. Unfortunately, especially in technical schools, they discover that 50% of theoretical subjects are even more difficult than academic track subjects. According to (Electronics Teacher), it is one reason for a drop in students' performance with higher grades.

As ensure by Murgor (2017), competence, interpersonal skills, and personal characteristics significantly influence the employability of individuals. In line with Murgor (2017), this study examined the employability skills of Kenyan TVET graduates and revealed time management was rated good for two-third of the respondents. Also, the respondents indicated that creativity and innovations were good. The result also confirms with Suzuki and Sakamaki (2020), who the results regarding core employability skills of African youth show that the high rated by the research participants are self-confidence, self-awareness, willingness to learn, independence, and teamwork graduates.

Furthermore, the results also demonstrate that the respondents feel these four skills are essential in the workplace. The result is in line with Nugraha et al. (2020), who showed personal and social skills are closely related to skills related to fellow humans and the skills of managing tasks or work. Personality has a relationship with one's motivation and culture. It is a priority that companies recruit workers who have creative and innovative skills. Workers are required to think creatively and innovative to produce an idea. The idea and novelty can bring dynamic changes to the company's progress. In addition, because workers who have good self-discipline will affect work productivity. Similarly, the study results agree with Kigwilu's (2016) findings that TVET graduates portrayed high self-esteem, had a positive attitude towards others, and related and communicated effectively. My study also agrees with Ispal et al. (2014); their finding showed that Premier Malaysia Polytechnic students' level of soft skills at the high level with is communication skills at the top.

### **Conclusion**

From the finding of this study, the research participants perceived TVET students and graduates had appropriate competencies and good employability skills. However, the total number of TVET students in the whole country still negligible compare to the academic track (3% of the academic path). Also, the capacity of TVET institutions is limited and not absorbing all the students' interest to join. So, there must be a clear strategy and goals for TVET to set the cadres' needs, develop known outputs, and prepare them with appropriate work schedules to support the country's economy. As a result, it is vital to create a space for students after graduation in which we can positively differentiate graduates of TVET institutions, and opportunities must be provided. Because of the lack of vision, we deny many students the opportunity to continue their education and training.

It advocated for creating a single ministry for TVET to unite all efforts and connect all TVET institutions under one body, rather than the fragmentation of TVET under three different ministries. It can aid in the implementation of TVET policy and strategies while also lowering administrative costs.

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