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Employers' Perceptions about the Employability of Technical, Vocational Education and Training Graduates in Uganda

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Authors' contributions

This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.

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ABSTRACT

Aims: The study aimed at determining employers' perceptions about the employability of Technical, Vocational Education and Training (TVET) graduates in Uganda. Determining employability skills from the employer's perspective is crucial to develop these skills among the students while at the training institutions.
Study Design: Survey.
Place and Duration of Study: Sample: Employers of TVET graduates in Uganda. Between February 2018 to August 2018.
Methodology: The study adopted and modified a SCANS (Secretary's Commission on Achieving Necessary Skills) questionnaire. Sample: The study involved 50 respondents selected from different employing organizations.
Results: The findings indicated that most employers agreed that the graduates possessed the basic skills (average mean=3.91), ICT skills (average mean=3.87), and interpersonal skills required for work (average mean=3.61). However, there were negative perceptions regarding their decision making (mean= 2.39), reasoning (mean=2.96), self-esteem (mean=2.92), sociability' (mean=2.90), integrity/honesty (mean= 2.60), money (mean=2.57), materials and facilities management

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(mean=2.67); understanding systems (mean=2.79), monitoring and correcting performance (mean=2.40), and improving systems (mean=2.24). Further, that most employers don't participate in curriculum design (50%).
Conclusion: TVET institutions should endeavor to improve on the negatively perceived aspects to instill the necessary employability skills among the graduates to make them readily employable.

Keywords: Perceptions; employability; graduates; employers.

1. INTRODUCTION

1.1 Technical, Vocational Education and Training (TVET): A Brief Overview

At the beginning of the twenty-first century, demography, urbanization, globalization and technological and macroeconomic crises brought about considerable job challenges. New occupations demanded new skills and competencies and Technical Vocational Education and Training (TVET) and Skills Development (SD) systems were called upon to respond to these needs [1] The United Nations Educational Scientific and Cultural Organization (UNESCO) defined TVET as: " those aspects of the educational process involving, in addition to general education, the study of technologies and sciences, in order to attain knowledge, practical skills, and attitudes for employment in various sectors of economic and social life" [2]. As an essential part of general education, TVET prepares individuals for effective participation in the world of work, lifelong learning, responsible citizenship and promotion of sustainable development [3]. Whereas general education makes one trainable, TVET makes one employable because it provides appropriate skills for the job market [4]. TVET has further been identified as the type of education that prepares both young people and adults for work by providing them with knowledge, skills and competencies for gainful employment, increased productivity and improved quality of life [5].

A distinct feature for TVET is that it can be provided at all stages of the learners. This makes it easy to not only respond to different skills needs of enterprises but also to training needs of learners from different academic backgrounds and prepare them for gainful employment and sustainable livelihoods [6]. Therefore, TVET is the type of education which offers individuals with skills, knowledge and attitudes for employment in specific occupations [7]. A well-educated and well-trained population is crucial for the efficient acquisition, utilization, creation and dissemination of knowledge and skills that increase productivity and economic growth [8]. The essential role of TVET in facilitating skills development for the socio-economic and technological development of countries globally account for the increasing importance that is being attached to TVET [7]. Therefore, an effective and successful TVET system is a crucial pillar for a successful economy [9]. Quality TVET is therefore recognized to be vital for enhancing economic competitiveness by contributing to the social inclusion, decent employment and income, and poverty reduction [10]. The quality of a TVET system is therefore vital for spearheading industrial development by providing vocational graduates who are creative and adaptable, understand products and services, and are central to technological innovations and practice [11].

A Group of Twenty (G-20) training strategy, prepared by the International Labour Organization (ILO), recognized the importance of developing a suitably skilled workforce. The strategy emphasized good quality education, matching skills supply to future market demands, and enabling workers to adjust to changes in technology [12]. In 2007, the African Union (AU) drafted the strategy to revitalize TVET in Africa. The report states that there is a fresh awareness among many African countries of the critical role that TVET plays in the national development. It recommended that VET national objectives in member countries be grouped into five specific areas that should be addressed by the syllabi: delivery of quality TVET, graduates' employability, improvement of consistency and management by training providers, promotion of life-long learning, and enhancing the status and attraction of vocational education [13]. There has been some noticeable improvements across most African states although quality provision and relevance of such is still a concern [14].

1.2 Technical, Vocational Education and Training in Uganda

In Uganda, Technical, Vocational Education and Training (TVET), is known as Business,

Technical, Vocational Education and Training (BTVET). The most significant legal instrument guiding the policy formulation and reforms for this education sector is the BTVET act of 2008. According to this act the objective of BTVET is to provide relevant and quality knowledge, values and skills for purposes of academic progression and employment in the labour market to the larger number of persons in an affordable way, and to improve the productivity capabilities of the individuals and enhance employability [15].

The BTVET system comprises– public; private; and firm based training. There are 144 public institutions; about 600 private training service providers and an unknown number of apprenticeships and enterprise based training programmes operating in Uganda. The national vision is to develop a BTVET system that will enable greater access, and realization of the full potential of Uganda's human resources. For the benefit of the economy, Business, Technical, and Vocational Education and Training (BTVET) is capable of producing a competent and polyvalent workforce with practical work skills, entrepreneurship skills and orientation that are essential for employment [16].

Over the last five years, all BTVET institutions have experienced increases in students' enrolment and the demand is continuing to rise. The demand for employment oriented skills training will therefore continue to raise both in the medium term and in the long run. In the light of all the above realities, BTVET needs appropriate recognition and support so that it can have a significant impact on poverty eradication within the context of the pro-poor economic growth strategy [17].

Realizing the importance of TVET in facilitating skills development for the socio-economic and technological development, the Ugandan government has been at the forefront in advocating for reforms in the BTVET education subsector. A 10-year BTVET strategic plan 2011-2020, launched in October 2012 and titled 'Skilling Uganda', emphasizes a more comprehensive system of skills development to raise the quality and economic relevance of BTVET. The strategic plan targets to reform the way BTVET programmes are delivered to different groups so as to improve the competences of graduates and make them competitive in the labour market [16]. The graduates should be competent enough to fit into Uganda's labour market, which has had a shift in economic structure. The predominantly agricultural economy has steadily shifted to industry and services, tourism, construction, oil and gas. All these have increased the demand for skills in the labour market [18]. However, it has been noted from different studies that most graduates from training institutions fail to get absorbed into the Ugandan labour market because their skills profile are ill-suited to find appropriate employment, yet opportunities do exist [19,17,20,21,22]. This was further confirmed by the Uganda Bureau of Statistics (UBoS) School-to-Work Transition Survey (SWTS) carried out in 2015 which revealed that young persons with tertiary level of education had higher levels of unemployment (12 percent) than the national average (7 percent) [23]. An example is that of the flower export enterprises. When these businesses began in Uganda, there was no skilled labor to carry out the work, so employees were imported from Kenya [21]. Similar cases are found in the hotel industry, oil and gas and the road construction sectors where most workers are foreign yet Ugandan BTVET institutions produce many graduates in these fields annually. In 2007, UNESCO noted that in almost all African countries, large numbers of graduates coming out of school system are unemployed, although opportunities for skilled workers do exist in their economy [24]. The lingering questions are, "Why is this so?"; "What are the employers' perceptions about the employability of TVET graduates in Uganda?" The study was conducted to address such questions. Identifying indicators for employability skills from the employer's perspective is crucial to develop students' employability skills. The education institutions must produce graduates who not only have technical skills but also employability skills [25].

1.3 Scope of the Study

The study was conducted between February, 2018 to August, 2018 and it was limited to only engineering/technical fields in BTVET.

1.4 Literature Review

Several studies have been conducted about employers' perceptions about the employability of TVET graduates.

In The Gambia, a tracer study of TVET graduates was carried out by the Educational Research Network for West and Central Africa (ERNWACA) (2013) for the period (2009 –

2011). Views from a sample of 34 employers were sought in regard to their satisfaction about TVET graduates skills and performance level. The employers noted that they had found the graduates' performance adequate, especially for those graduates mainly working in the commercial sector. However, for those in the engineering and construction sectors, the results were the opposite [26].

The Ministry of Higher Education of Malaysia (MOHE) (2009), carried out an overview about undergraduates' employability at a private university. The findings showed that undergraduates were all highly competent in possessing personal qualities and skills. However, there existed a mismatch between employers' and undergraduates' perception on skills such as critical analysis, planning, problem solving, oral communication, decision making, and negotiation skills [27].

A survey was carried out in 2010 by Flash Euro barometer covering all 27 European Union (EU) member states, regarding "Employers' perception of graduate employability". The survey provided insights into the needs and perceptions of graduate recruiters. Taking into account certain skills and abilities as "very important", employers highlighted the importance of teamwork (67%), and special sector skills such as, communication skills, computer skills, the ability to deal with a new situation, reading / writing ability, and problem solving skills all 58% - 62% [28].

Furthermore, from the European Commission survey, when asked to name the two most important challenges they faced in filling vacancies, almost half (47%) of graduate recruiters mentioned a shortage of applicants, in their country, with the right skills and capabilities; a somewhat smaller number of respondents (43%) saw a difficulty in being able to offer a competitive starting salary as one of the two main challenges (European Commission, 2010). These findings are in line with a World Bank report (2010), which noted that nowadays employers in many economies are seeking workers who possess behavioral skills such as teamwork, diligence, creativity, and entrepreneurship. In addition workers need personal attributes, like work ethics and problem-solving skills. Thirdly, workers are required to have technical skills, e.g. dealing with corruption and bribery, as well as self- improvement skills such as self-worth, confidence and motivation which are essential to thrive in today's rapidly evolving, technologically-driven globalized economies [29].

In Bhutan, TVET is seen as a system to equip those cohorts of young people not only with vocational skills but also with a broad range of knowledge, skills and attitudes indispensable for a meaningful participation in work and life. The Royal Government of Bhutan aims for TVET to close the skills gap between skills required by employers and those that employees have acquired [30]. In his research about skills development in Bhutan, [30] concluded that the majority of the employers (more than 80%) agreed that industries require TVET graduates who possess a broad range of generic/employability skills rather than only specialized/ technical skills and that generic/employability skills should be imparted in TVET institutions. Employers expect graduates to be self-confident, able to solve problems and take practical decisions on their own. Besides, they valued creativity and innovativeness. She further found out the five skills that employers considered important for the labour market as: being able to solve problems, being able to understand how ideas and systems are linked to each other, being able to work with other people in teams, having a customer focus and being motivated.

In Tanzania, research shows huge divergence between the kind of graduates employers expect and those produced by colleges and universities as attested by public and private sectors [31]. He further quotes former Tanzanian president Dr. Jakaya Mrisho Kikwete who hinted that "many of the Tanzanian graduates are unemployable because they do not get the required skills needed by the markets inside and outside the country".

In Papua New Guinea, results from an investigation into a Vocational Education and Training (VET) model for secondary schools revealed that employers are interested in recruiting only those secondary or post-secondary school graduates who have proper qualifications with employability skills. Unless the students were given sufficient training in some of the employability skills and attributes, there is no guarantee of employment for the majority of secondary school graduates in Papua New Guinea. Students should acquire these employability skills and attributes at secondary level so that it would assist their smooth

transition from school to further education/training and employment [32].

In Nigeria, [33] researched about employers' perception of the role of technical vocational education and training in sustainable development. The sample comprised of 84 indigenous and 72 multinational employers in the north-east geopolitical zone of Nigeria. To guide the study were two research questions and null hypotheses. The data was collected using a questionnaire and were analyzed using means and standard deviation and the t-test. They concluded that Nigerian employers are not satisfied with the Technical and Vocational Education and Training (TVET) system in Nigeria.

In Togo, [34] researched about technical and vocational education stakeholders' perceptions on professional skills acquired in private "Brevet de Technicien Supérieur (BTS)" schools. One of their major findings revealed that eighty percent of the employers' expressed their dissatisfaction regarding implemented BTS curricula compared to the needs of the labor market. A large majority of respondents were unsatisfied (73% and 60% respectively), about the skills acquired by BTS graduates especially labor market expectations, and opportunities for professionals involved in the training process. They concluded that, employers believe that students' theoretical knowledge is not well understood and their practical abilities are not up to standard. This may result in BTS training being a way for students to gain a diploma of little use while the private BTS institutions are run as a business, rather than an educational institution which teaches theory and practical skills.

In Kenya, [35] researched about the perceptions of stakeholders of TVET in the micro and small enterprises of motor vehicle service and repair industry. She found that although most employers agreed that TVET is a necessary program for the country's industrial growth, others rated the success of the program differently.

2. METHODOLOGY

The study adopted a descriptive survey design because it is used to describe the state of affairs, as it exists. It is used when collecting information about people's attitudes, opinions, habits or any of the variety of education or social issues [36]. Many educational study approaches are descriptive because they describe the conditions or existing relationships and practices that are happening [37]. The target population comprised of 58 prominent employers of TVET graduates in Uganda. The sample size was determined using Krejie and Morgans' table (1970). Accordingly, for a target population of 58, the sample size was 50.The list of prominent employers was drawn up by the researchers from records of the Uganda bureau of statistics. The names of the companies were written on a piece of paper which was then folded and put into a box. After a thorough shaking of the box, the researcher randomly picked the papers and the names of the companies found were considered for the study. The respondents were then randomly selected from among the administrators and supervisors from these companies. The study sought views from the employers in order to identify indicators for employability skills from the employer's perspective which are crucial to develop students' employability skills. The study adopted and modified a SCANS (Secretary's Commission on Achieving Necessary Skills) questionnaire which was developed in the U.S.A. The SCANS questionnaire is made up of five competencies and a three-part foundation of skills and personal qualities needed for solid job performance. The SCANS questionnaire has been used over time and it focuses on similar themes as many other employability skills measures. It was considered valid and reliable because it has been extensively used for measuring competence. Therefore, the researcher found it useful and reliable for determining basic skills and competences for TVET graduates in Uganda. The researchers conveniently administered and followed up the 50 questionnaires which were distributed to the respondents to ensure that they were all properly filled and returned. The data collected was analyzed using Statistical Package for Social Scientists (SPSS) version 20.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Number of TVET graduates employed by the companies

The first item on the questionnaire sought to know the number of TVET graduates employed in the companies or organizations of the respondents. Table 1 shows the findings.

As indicated in Table 1, out of the 50 companies or organizations from which data was gathered, 80% had less than 250 TVET graduates working them.

Table 1. Number of TVET graduates employed by the companies

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Less than 50	20	40.0	40.0	40.0
	50-249	20	40.0	40.0	80.0
	250 or more	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

3.1.2 Ownership structure of employers' companies/organizations

The second item on the questionnaire sought to establish the ownership structure of employers' companies or organizations of the respondents. Table 2 shows the findings.

As indicated in Table 2, out of the 50 companies or organizations from which data was gathered, 80% were privately owned and 20% were public enterprises.

3.1.3 Main activities of the employers

The researchers sought to establish the main activities of the employers. The table 3 gives the main activities in which most TVET graduates were engaged:

As indicated in Table 3, most TVET graduates were engaged in 'motor vehicles and motorcycles repair' (20%), 'manufacturing' (7%), and 'electricity and gas supply services' (6%).

Whereas 'professional, scientific and technical consultancy activities' (2%) and 'real estate management' (2%) were the activities in which fewer TVET graduates were engaged.

3.1.4 Employers' rating of foundation skills and personal qualities required for work amongst TVET graduates

This section deals with the employers' rating of skills required for work amongst TVET graduates. It is divided into eight sub-groups. The sub-groups were categorized according to SCANS eight specific skills and these were: basic skills; thinking skills; personal qualities; resource management skills; information skills; interpersonal skills; system management and technology use. The responses were gathered using a five point likert scale and were indicated by 'strongly agree', 'agree', 'not sure', 'disagree', and 'strongly disagree'. Scoring weights of 5, 4, 3, 2, and 1 were used for 'strongly agree', 'agree', 'not sure', 'disagree', and 'strongly disagree' respectively for statements favoring a rating regarding skills required for work amongst TVET graduates.

The analysis of the employers' perception was done using mean and standard deviations. Standard deviation is the average spread of scores around the mean. According to [38], when the standard deviation is greater than the mean, then the mean is inappropriate as an illustrative measure of central tendency. Accordingly, for this study the values of the standard deviations are less than the mean values as indicated in the tables below, and hence, the mean is appropriate to measure the employers' rating of skills required for work amongst TVET graduates.

3.1.4.1 Basic skills

The first item under this section on the questionnaire sought to find out the perception of the employers regarding the basic skills of TVET graduates. Table 4 shows the findings.

As indicated in Table 4, all the items presented to the respondents rated above the average mean on the scale running from 1 to 5. This implies that the employers agreed that TVET graduates in Uganda possessed the basic skills required for work.

Table 2. Ownership structure of employers' companies/organizations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	10	20.0	20.0	20.0
	Private	40	80.0	80.0	100.0
	Total	50	100.0	100.0	

Table 3. Main activities of the employers

		Frequency	Percent	Valid percent	Cumulative percent
Valid	Manufacturing	7	14.0	14.0	14.0
	Transportation and storage	4	8.0	8.0	22.0
	Building and road construction	5	10.0	10.0	32.0
	Water supply; sewerage, waste management activities	3	6.0	6.0	38.0
	Refrigeration and air conditioning services	4	8.0	8.0	46.0
	Motor vehicle and motorcycle repair	10	20.0	20.0	66.0
	Electricity and gas supply services	6	12.0	12.0	78.0
	Professional, scientific and technical consultancy activities	2	4.0	4.0	82.0
	Real estate management activities	2	4.0	4.0	86.0
	Other service activities	7	14.0	14.0	100.0
	Total	**50**	**100.0**	**100.0**	

3.1.4.2 Thinking skills

The second item under this section on the questionnaire sought to find out the perception of the employers regarding the thinking skills of TVET graduates. Table 5 below shows the findings.

As indicated in Table 5, two items, that is, 'decision making' (2.39), and 'reasoning' (2.96) scored below the average mean value. The remaining four items namely, 'creative thinking' (3.83), 'Problem solving' (3.16), 'seeing things in the mind's eye' (3.38) and 'knowing how to learn' (3.06) were all rated above the mean average on the scale running from 1 to 5. This implies that the employers negatively perceived the decision making and reasoning skills of TVET graduates in Uganda.

3.1.4.3 Personal qualities

The third item under this section on the questionnaire sought to find out the perception of the employers regarding the personal qualities of TVET graduates. Table 6 shows the findings.

From issues presented to the respondents as indicated in Table 6, two items, that is, 'responsibility' (3.31), and 'self-management' (3.10) scored above the average mean value. The remaining three items namely, 'self-esteem' (2.92), 'sociability' (2.90), and 'integrity/honesty' (2.60) were all rated below the mean average on the scale running from 1 to 5. This implies that the employers negatively perceived the self-esteem, sociability and integrity/honesty of TVET graduates in Uganda.

3.1.5 Employers' rating of the competencies required for work amongst TVET graduates

3.1.5.1 Resource management skills

The first item under this section on the questionnaire sought to find out the perception of the employers regarding the resource management skills of TVET graduates employed in the companies or organizations of the respondents. Table 7 shows the findings.

From issues presented to the respondents as indicated in Table 7, two items, that is, 'time' (3.00), and 'human resources' (3.16) scored above the average mean value. The remaining two items, 'money' (2.57), and 'materials and facilities' (2.67) were rated below the mean average on the scale running from 1 to 5. This implies that the employers were satisfied with the TVET graduates' time management and human resources skills. However, they had concerns regarding money, materials and facilities management by TVET graduates in Uganda.

Table 4. Basic skills of TVET graduates (N=50)

Statement	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mean	Standard deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Reading	20	40.0	12	24.0	8	16.0	8	16.0	2	4.0	3.80	1.25
Writing	17	34.0	19	38.0	-	-	12	24.0	-	-	3.85	1.17
Arithmetic	18	36.0	29	58.0	-	-	-	-	-	-	4.38	.49
Mathematics	10	20.0	20	40.0	8	16.0	10	20.0	2	4.0	3.52	1.15
Listening	8	16.0	30	60.0	10	20.0	-	-	-	-	3.96	.62
Speaking	20	40.0	16	32.0	8	16.0	4	8.0	2	4.0	3.96	1.12

Table 5. Thinking skills of TVET graduates (N=50)

Statement	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mean	Standard deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Creative thinking	-	-	39	78.0	8	16.0	-	-	-	-	3.83	.379
Decision making	8	16.0	-	-	-	-	35	70.0	5	10.0	2.39	1.22
Problem solving	9	18.0	10	20.0	10	20.0	20	40.0	-	-	3.16	1.16
Seeing things in the mind's Eye	-	-	28	56.0	10	20.0	10	20.0	-	-	3.38	.82
Knowing how to learn	-	-	25	50.0	-	-	22	44.0	-	-	3.06	1.01
Reasoning	-	-	18	36.0	10	20.0	20	40.0	-	-	2.96	.89

Table 6. Personal qualities of TVET graduates (N=50)

Statement	Strongly agree		Agree		Not Sure		Disagree		Strongly disagree		Mean	Standard deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Responsibility	-	-	28	56.0	-	-	18	36.0	2	4.0	3.13	1.06
Self-Esteem	8	16.0	-	-	20	40.0	20	40.0	-	-	2.92	1.05
Sociability	-	-	-	-	20	40.0	10	20.0	5	10.0	2.90	.95
Self-Management	-	-	22	44.0	10	20.0	17	34.0	-	-	3.10	.89
Integrity/Honesty	-	-	9	18.0	16	32.0	21	42.0	4	8.0	2.60	.88

Table 7. Resource management skills of TVET graduates (N=50)

Statement	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mean	Standard deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Time	-	-	23	46.0	7	14.0	17	34.0	3	6.0	3.00	1.03
Money	-	-	9	18.0	10	20.0	30	60.0	-	-	2.57	.79
Materials and Facilities	-	-	16	32.0	-	-	32	64.0	-	-	2.67	.95
Human Resources	9	18.0	10	20.0	10	20.0	20	40.0	-	-	3.16	1.16

Table 8. Information and communication skills of TVET graduates (N=50)

Statement	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mean	Standard deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Acquires and evaluates information.	5	10.0	42	84.0	-	-	-	-	-	-	4.12	.31
Organizes and maintains information.	8	16.0	30	60.0	-	-	10	20.0	-	-	3.75	.98
Interprets and communicates information.	10	20.0	18	36.0	8	16.0	12	24.0	2	4.0	3.44	1.18
Uses computers to process information.	18	36.0	20	40.0	10	20.0	-	-	-	-	4.17	.75

Table 9. Interpersonal skills of TVET graduates (N=50)

Statement	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mean	Standard Deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Participates as a member of a team	7	14.0	22	44.0	10	20.0	10	20.0	-	-	3.53	.98
Teaches others new skills.	-	-	29	58.0	10	20.0	10	20.0	-	-	3.39	.81
Serves Clients/Customers	-	-	41	82.0	7	14.0	-	-	-	-	3.85	.36
Exercises Leadership	8	16.0	30	60.0	10	20.0	-	-	-	-	3.96	.62
Negotiates	-	-	35	70.0	8	16.0	6	12.0	-	-	3.59	.70
Works With Diversity	-	-	29	58.0	10	20.0	10	20.0	-	-	3.39	.81

Table 10. System management skills of TVET graduates (N=50)

Statement	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mean	Standard deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Understands Systems	4	8.0	16	32.0	-	-	24	48.0	5	10.0	2.79	1.24
Monitors and Corrects Performance	-	-	10	20.0	10	20.0	20	40.0	10	20.0	2.40	1.03
Improves or Designs Systems.	-	-	8	16.0	8	16.0	22	44.0	12	24.0	2.24	1.00

Table 11. Technology use by TVET graduates (N=50)

Statement	Strongly agree		Agree		Not sure		Disagree		Strongly disagree		Mean	Standard deviation
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%		
Selects Technology	3	6.0	18	36.0	-	-	25	50.0	3	6.0	2.86	1.17
Applies Technology to Task.	5	10.0	10	20.0	5	10.0	20	40.0	10	20.0	2.60	1.29
Maintains and Troubleshoots Equipment	17	34.0	30	60.0	-	-	-	-	-	-	4.36	.49

Table 12. Cooperation with TVET institutions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very frequently	2	4.0	4.0	4.0
	Rather frequently	3	6.0	6.0	10.0
	Sometimes	20	40.0	40.0	50.0
	Never	25	50.0	50.0	100.0
	Total	50	100.0	100.0	

3.1.5.2 Information skills

The second item under this section on the questionnaire sought to find out the perception of the employers regarding information and communication skills of TVET graduates employed in the companies or organizations of the respondents. Table 8 shows the findings.

From issues presented to the employers as indicated in Table 8, all the four items were rated above the mean average on the scale running from 1 to 5. This implies that the employers agreed that TVET graduates in Uganda possessed the information and communication skills required for work.

3.1.5.3 Interpersonal skills

The third item under this section on the questionnaire sought to find out the perception of the employers regarding interpersonal skills of TVET graduates employed in the companies or organizations of the respondents. Table 9 shows the findings.

As indicated in Table 9, all the items presented to the respondents rated above the average mean on the scale running from 1 to 5. This implies that the respondents agreed that TVET graduates in Uganda possessed the interpersonal skills required for work.

3.1.5.4 System management skills

The fourth item under this section on the questionnaire sought to find out the perception of the employers regarding system management skills of TVET graduates. Table 10 shows the findings.

As indicated in Table 10, all the items presented to the respondents rated below the average mean on the scale running from 1 to 5. This implies that the employers had a negative perception on the TVET graduates' ability to understand systems, monitor and improve systems' designs.

3.1.5.5 Technology use

The fifth item under this section on the questionnaire sought to find out the perception of the employers regarding technology use by TVET graduates. Table 11 shows the findings.

From issues presented to the respondents as indicated in Table 11, two items, that is, 'selects technology' (2.86), and 'Applies technology to task' (2.60) scored below the average mean value. The remaining item, 'maintains and troubleshoots equipment' (4.36) was rated above the mean average on the scale running from 1 to 5. This implies that the employers had a negative perception on the way TVET graduates select and apply technology.

3.1.6 Cooperation with TVET institutions

The employers were further invited to rate their cooperation with TVET institutions with regard to curriculum design of the study programmes. Table 12 shows the findings.

As indicated in Table 12, out of the 50 companies or organizations from which data was gathered, the majority, 50% had never participated in curriculum design of the study programmes, whereas 40% acknowledged that some times, they are involved. This implies that generally, employers do not participate in curriculum design of study programmes.

3.2 Discussion

3.2.1 Employers' rating regarding foundation skills and personal qualities required for work amongst TVET graduates

Basic skills: As indicated in Table 4, findings indicated that TVET graduates in Uganda possessed the basic skills required for work. According to [39], 'basic skills include both the literacy and numeracy skills necessary for getting work that can pay enough to meet day-to-day needs. These skills are also a prerequisite for continuing in education and training, and for acquiring other vocational, professional and core work skills that enhance the prospect of getting a good job'. From the experience of the researchers as TVET trainers, it's true that TVET graduates in Uganda have the basic skills required for work and to enable them pursue further studies.

Thinking skills: As indicated in Table 5, findings indicated that employers had issues regarding decision making and reasoning of TVET graduates in Uganda. Similar challenges were reported amongst TVET graduates in Malaysia. A national graduate employability blueprint 2012-2017 [40], reported that many graduates were finding it difficult to get employed because they lack the technical knowledge and generic skills which employers require. Among the examples

of skills mentioned were teamwork skills, oral communication skills, creative thinking skills and decision making skills. In the view of the researchers, decision making and reasoning skills can be inculcated from the training methods a TVET trainer employs. Further, adequately preparing young people at the lower education levels can instill those values.

Personal qualities: As indicated in Table 6, findings indicated that the employers had issues regarding self-esteem, sociability and integrity/honesty of TVET graduates in Uganda. The same concern was raised by [41], in their study about employability awareness among Malaysian undergraduates. They noted that there was an outcry from most employers about the soft skills possessed by most graduates. Most notably, employers were of the view that students lacked skills such as self-management, work ethic, dependability, self-management and other soft skills. In the view of the researchers, TVET curriculum should also emphasize not only the technical skills but also the soft skills which are required for graduates to fit in the world of word.

3.2.2 Employers' rating regarding competences required for work amongst TVET graduates Resource management skills

As indicated in table 7, findings indicated that employers had issues regarding materials and facilities management by TVET graduates in Uganda. The findings are similar to those of [42] in their assessment of the workshop facilities management practices in technical colleges of Niger state. They concluded that there were ineffective mechanisms for proper management of workshop facilities in technical colleges and therefore the TVET programme was not meeting its intended objectives. In the view of the researcher, learners will always practice what they are taught and what they see at their training institutions. It's therefore not surprising that the employers have issues with TVET graduates regarding materials and facilities management. TVET administrators and trainers should therefore improve their facilities management practices.

Information skills: As indicated in Table 8, findings indicated that employers agreed that TVET graduates in Uganda possessed the ICT skills required for work. The relevance of having adequate ICT skills was emphasized by [43] who noted that globalization and the widespread use of ICT at the workplaces in such activities like medical imaging, bio-technologies, just-in-time technology among others has affected the way work gets done in many occupations. This has led to demands of a new set of skills from prospective employees in order to make them to be successful on the job.

Interpersonal skills: As indicated in Table 9, findings indicated that employers agreed that TVET graduates in Uganda possessed the interpersonal skills required for work. This was similar to a study carried out in Malaysia by [44]. The study was to identify the level of interpersonal communication skills element amongst final year TVET undergraduate students in Malaysia. The findings revealed that most graduates' interpersonal communication skills had high levels of proficiency. Also, in a tracer study conducted to ascertain the performance of Higher National Diploma (HND) building technology graduates by [45] in Ghana, most employers emphasized that most graduates possessed attributes such as verbal communication, teamwork, time management, commitment and interpersonal skills which are required in the construction industry. This is an indicator that most TVET graduates have good interpersonal skills.

System management skills: As indicated in Table 10, findings indicated that employers had issues regarding TVET graduates understanding of systems, monitoring and improving of systems' designs. This predicament was further highlighted during a private chat with a mate who has franchises in ICT and often employs TVET graduates in his contracts, he explained;

'…the type of technologies in our sector changes so rapidly. In ICT, we expect new software in the market after every six months. I doubt whether the TVET institutions can cope with these rapid changes to train their students to be up to-date. It is expensive for them. This implies that their graduates cannot have the latest skills we require. We have to re-train them before they start to work with us'.

In the view of the researcher, this dilemma will be overcome with close cooperation between the training institutions and the world of work.

Technology use: From issues presented to the respondents as indicated in Table 11, findings indicated that employers in Uganda had issues regarding TVET graduates' selection and

application of technologies. Concerned about the same issue in Kenya, [46] reported in the standard media that the Kenyan ministry of education is working on a program of making TVET graduates better equipped. Students studying for diplomas and certificates will spend half of the course duration on attachment. The plan will ensure that graduates from middle-level colleges have the requisite skills to increase their chances of securing jobs. Education experts have been faulting the current system for not giving enough practical skills to diploma and certificate students before graduation. The Kenya National Qualifications Authority (KNQA) director general Juma Mukhwana who said 'the new system would see all TVET students attached to industries for mandatory internships that will be scored to form part of the overall grading' [46]. In the view of the researcher, this will come a long way in enhancing students' practical skills. The only fear is in implementation. For instance, how will the larger number of trainees get absorbed within the few industries? And, what will be the fate of those who miss out on getting industrial training placement? Therefore, a lot of answers are needed before the plan is rolled out.

3.2.3 Cooperation with TVET institutions

As indicated in Table 12, findings indicated that most employers are left behind during curriculum design of study programmes. This is contrary to [47], who asserts that 'collaboration with industry is a means of developing and improving the quality of training given to students in TVET institutions; a process of involving the industry in the total education and training system to develop and improve student practical skills and also facilitates the placement of students in industries to acquire workplace experience under an industrial attachment scheme'. Collaboration with industry leads to improvement of the quality of education and training through joint curriculum development [47]. The researcher is of the view that since industry are the end users of the TVET graduates, collaborations in curriculum design helps to incorporate those aspects employers expect to find among the graduates when they employ them.

4. CONCLUSION

It is important to identify indicators for employability skills from the employer's perspective because it is helps trainers to develop the same among the trainees. In the study, it was established that most TVET graduates possessed the basic skills, ICT skills and interpersonal skills required for work. However, it was also indicated that most employers negatively perceived some items about TVET graduates. The items were: decision making and reasoning; regarding self-esteem, sociability and integrity/honesty; materials and facilities management; understanding of systems, monitoring and improving of systems' designs; and issues regarding TVET graduates' selection and application of technologies. TVET institutions should therefore endeavor to improve on those negatively perceived aspects during the training process to make their graduates employable.

5. RECOMMENDATIONS

- It is recommended that there should be an increase of staff exchange programmes between TVET training institutions and industry to enhance the practical skills of TVET trainers so that the gap between theory taught at the institutions and practice as demonstrated in the industry are enriched.
- There should be continuous research by TVET institutions about the essential characteristics of the labor market to analyze the main features which influence employment companies' hiring needs.
- Industrial-institutional linkages should be fostered to support curriculum improvement processes, provision of facilities, and provision of industrial placement opportunities for both trainees and trainers. This will ensure that there is no skills mismatch with training provision.
- It is further recommended that the employers, parents, and trainers in the TVET institutions should work together to nurture employability skills amongst the trainees regardless of gender or trainees' field of study.
- The TVET institutions should properly guide their trainees on the current labour market requirements and provide appropriate education which fulfils the requirements. This is possible by revising the curriculum time and again so that it is relevant and up to date.
- The duration of industrial training attachment should be increased and its effectiveness should be regularly monitored through a vibrant quality assurance system to ensure that the trainees acquire the necessary skills.

ETHICAL APPROVAL

Before going to the field for data collection, the research proposal was sent to an ethical review committee. Mbarara University of Science and Technology Research Ethical Committee (MUST-REC) was used and it approved the research. Additionally, the committee approved an informed consent document which was used to get consent from the respondents before collection of the data. However, for the study most of the employers requested to remain anonymous. The next step was to get clearance from the Uganda National Council for Science and Technology (UNCST), the body which supervises research activities in Uganda. The proposal was submitted to UNCST and the study was cleared to be carried out.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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