

**CONTRIBUTION OF TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING (TVET) PROGRAM IN
PROMOTING EMPLOYMENT OPPORTUNITIES AMONG
THE YOUTH IN RWANDA: A CASE OF NYABIHU
DISTRICT (RWANDA)**

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ISSN 2277-7733

Volume 10 Issue 3,

December 2021

Abstract

The purpose of the study was to investigate the contribution of Technical and Vocational Education and Training (TVET) program in promoting employment opportunities among the youth in Rwanda. Its specific objectives are to assess the contribution of hands-on skills and entrepreneurship skills as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district. The study adopted both qualitative and quantitative design. The population from which the sample was delivered is 1883 persons. The sample size was derived from TVET graduates living in Nyabihu District to be surveyed using the Yamane's formula at a confidence interval of 90% and margin of error of 10%. The calculation gave 95 persons as the sample size. TVET graduates who were ready to provide information have been selected. The researcher used simple random sampling technique. He also used the questionnaire as a research instrument. The researcher analyzed data using SPSS and the results were presented in tables. The results showed that the respondents agree that Hands-on skills acquired from TVET have helped them to create a job. On this issue, the conclusion is that hands-on skills obtained from TVET schools are very important in job creation, performance at work, job promotion and job security with the aggregated Mean=4.28; SD=0.68. However, the importance on job creation and job security is very limited with their Mean falling under 4.20. Also, entrepreneurship skills acquired from Rwandan TVET schools are not fully exploited and their role in promoting employment opportunities is limited in Nyabihu District with the aggregated Mean of 3.01 and SD of 1.17. Based on the study findings the researcher recommends the following: The government should put in place a fund that would help TVET graduates to be able to create their own job; the courses related to Entrepreneurship should be strengthened.

Keywords: TVET, Vocational education, hands on skills, entrepreneurship,

Technical and Vocational Education and Training (TVET) as defined by UNESCO (2010) is an education process which leads to acquisition of practical skills, attitude, understanding and knowledge relating to trades in various sectors of economic and social life. TVET as an education system is an asset for confronting employment challenges (Quisumbing, 2011). However, this is true if TVET implementation meets the needs of the people. TVET also needs to be relevant to the employment demand of the environment; social, economic, cultural and political.

In a global context, development of vocational skills and promotion of lifelong learning are recognized as core national strategy in many advanced countries including Japan and United States. In addition, small and emerging nations such as Finland, Taiwan and Singapore strengthen their comparative advantage and gained the competitive position in international employment market through adapting 'select and focus' strategy. Both the UN and the African organizations make clear that sustained employment poverty reduction will be realized through the efficient development and utilization of productive capacity of human resource especially youth, thus employment creation should be the centre of political and economic reforms (Alam, 2008). Countries like Taiwan, China and India went further to use TVET as a means for supporting creation of skilled work force (UNESCO, 2009). This increases productivity and hence economic growth. But the role of TVET goes further to promotion of social development. This shows that TVET has varying roles on development. TVET has also been implemented as a poverty reduction initiative. Among the many poverty initiatives, TVET is implemented as a skills development programme for youth (Colley et al., 2017).

In regional context, several debates on reintegration of education, skills and work have been conducted to prioritize human resource development along TVET which should be given much more attention in both socio and economic development. Many African states developed TVET policies and strategies and undertake great efforts to improve quality and relevance of TVET in order to diminish unemployment among the population in general and youth in particular. Recent creations of TVET leading and matching institutions with the labour market display the recognition of this acuteness problem in countries such Botswana, Namibia, Tanzania and Burkina Faso (UNESCO, 2017). Progress in the elaboration of national qualifications framework in recent years is proof of the successful joint efforts of governments and private sector to ensure high responsiveness of TVET to the individual, enterprise and economy needs (UNESCO, 2017).

In Rwanda, the same challenge was evoked by concerned governmental institutions. According to the July 2016 final report on self-evaluation for the Poverty Reduction Strategy Paper (PRSP) II, about 170,000 young people start working life each year without any sufficient qualifications and therefore have only a limited chance to integrate successfully into the economic cycle. The current TVET is not responding this issue where secondary schools with technical courses accommodate only 82,792 students. In addition, post primary vocational training schools (VTS) have the capacity to accommodate only 27,366 trainees (Rwandan Ministry of Education, 2008).

As such, there has been restricted contribution of TVET to employment availability in Rwanda. This is due to factors relating to the way TVET is implemented not only in Rwanda but also in other countries. TVET has been and remains a common development strategy for many countries around the

world and Rwanda displays its willing to be among those countries which used TVET to equip youth with skills and knowledge to address the problem of youth unemployment (Rwandan Ministry of Education, 2016).

In Rwanda, in 2012, the National Employment Policy reported that at least 70% of job seekers were not qualified for the kinds of jobs they sought or the standards demanded by employers (National Employment Policy, 2012). The National Skills Audit conducted the same year (2012) reported an average 40% skills deficit and severe skills gaps in some categories such as technicians, with current demand exceeding supply by 60% across the public, private and not-for-profit sectors (National Skills Audit, 2012). Based on these revelations, the Government of Rwanda introduced a reform of the education system to develop human resources that are consistent with the country's labor-market requirements. It is in that context that the existing TVET system was revised in order to adapt the supply to the demand in terms of employment especially for young people.

However, seven years after those reforms, there are still problems of satisfying the employment demand in some categories of skills. For example, in Nyabihu District, it is difficult to find skilled technicians in key domain of employment such as tourism, mining, ICT services, food processing, tea, alternative technologies and handcraft (Nyabihu District, 2017). Although the Education Sector Policy and the National Science, Technology and Innovation Policy clearly indicate the Government's commitment to develop and improve TVET, this part of the country (Nyabihu District) still is in dire need of skilled workers and technicians in the cited domains. Even in those occupational fields that show high demand for skilled workforce, like the construction sector, TVET graduates in Nyabihu District remain unemployed because they have not acquired the practical hands-on competencies (Nyabihu District, 2017). For the priority economic sector in Nyabihu District, the TVET offer is partly missing and unrelated to sector development tendencies (Nyabihu District, 2017).

The main problem of this study is the existence of the discrepancy between the efforts made by the Government of Rwanda to adapt the TVET programs to the real employment situation demand and the mitigating results obtained on the satisfaction of the market vis-à-vis the TVET program. This study is much needed to raise the attention of TVET implementers and curricula planners to collaborate closely with the farms and industries' holders so that young people graduating from TVET be provided with update skills.

Due to the above situation, we found it crucial to conduct a study with the purpose of analyzing the contribution of Technical and Vocational Education and Training (TVET) program in promoting employment opportunities among the youth in Rwanda especially in Nyabihu District. Consequently, this study aims at answering the following research questions: What is the contribution of hands-on skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district? What is the

contribution of Entrepreneurship skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district?

We believe that this research would provide in depth description and analysis of the role played by TVET to help graduates to be integrated in employment market as much as this study had articulated the subject.

Literature review

An overview of TVET history in Rwanda

In Rwanda, technical and vocational training was provided by different institutions with different naming.

Before 1979: Ecoles Familiales: Offering vocational training for female graduates of primary school for 2 years; CERAR: Centre d'Enseignement Rural et Artisanale: Offering vocational training for male graduates of primary school for 2 years; 1980-1994: CERAI: Centre d'Enseignement Rural Artisanal Intégré: Former Ministry of education "MINEPRISEC" had developed a network of centers, managed by the district or by religious institutions; Enrolled pupils from primary not eligible for secondary education. Training duration was 2 years; Before 1979-2009: École Officielle Technique (ETO): Initially 4 École Officielle Technique (ETO) namely ETO Kicukiro, ETO Kibuye, ETO Kibungo, ETO Gatumba supervised by the Ministry of Education, offered technical education and award A3 and A2 certificates. After 1994, other three ETO were created namely ETO Nyamata, ETO Gitarama and ETO Muhima; 1980-2009: CFJ: Centre de Formation des Jeunes Supervised by the Ministry of Youth, Sports, Culture and Vocational Training Transformed into VTC when WDA was established Offered short course training of 6 months to 1year in different trades such as masonry, carpentry and Tailoring; 2009-2017: WDA, VTC, TSS, IPRCS: Workforce development authority (WDA):

In 2008, the Government of Rwanda initiated Workforce Development Authority as an institutional framework to provide a strategic response to the skills development challenges facing the country across all sectors of the economy with the following mandates:

Established by the law no 03/March/2009 and restructured by the law no N°42/2016 of 18/10/2016; In 2013 new competency-based curricula were developed and piloted in Southern Province, Rwanda TVET qualification framework elaborated; Vocational training centers (VTC) and Technical secondary school (TSS): After the establishment of WDA, the supervision of CFJ shifted from the Ministry of youth, sport and culture to the ministry of education. Then, the name changed to VTC, and all secondary schools offering vocational courses become technical secondary schools (TSS).

Integrated polytechnics regional centers (IPRCs): In 2007, Tumba College of Technology was established in Northern Province in Rulindo District. Five IPRCS were established in 2008, namely IPRC Kigali, IPRC EAST, IPRC WEST which inherited the existing physical infrastructures of ETO in their

respective provinces. All IPRCs were under the supervision of WDA but since 2018 after the implementation of new restructuring of WDA, IPRCs are under supervision of Rwanda polytechnic (RP). On 28 February 2018, Gishali Integrated College was established in Eastern Province, Rwamagana District.

2018: Rwanda polytechnic (RP): In 2017, after Education sector reform, Rwanda Polytechnic (RP) is established by the law N° 21 bis/2017 of 28/04/2017 but become operational since March, 2018.

Hands-on skills acquired from TVET and employment opportunities

In 2013, Everard van Kemenade (2013) conducted a study on Hands-on skills acquired from technical and vocational education and training (TVET) program components/mechanisms and their overall effect on employment opportunities in a developing country context. Using secondary data, his descriptive case study integrates the realistic evaluation framework of Pawson and Tilley with Total Quality Management (TQM) frameworks. He found that his case study's TVET system adopts/adapts international best practices. Following the implementation of the 2008 TVET strategy, the proportion of formal TVET graduates who were recognized as competent based on their hands-on skills by the assessment and certification system increased from 17.42 percent in 2009/2010 to 40.23 percent in 2011/2012. Nevertheless, there is regional variation. He concluded that TVET reforms that are based on TQM frameworks could improve hands-on skills achievements in developing countries by enhancing awareness, coordination, integration, flexibility, participation, empowerment, accountability and a quality culture. Nevertheless, his research is limited by lack of longitudinal data on competency test results. There is also a need for further investigation into the practice of TQM and the sources of differences in internal effectiveness across TVET institutions. Based on his findings, he suggested that his description of the case study reform experience, which is based on international best experience, could better inform policy makers and practitioners in TVET elsewhere in Africa.

Karikari *et al.*, (2015) conducted a study on Effective Components of a Technical and Vocational Education Program: The Nigerian Case. The study asserted that TVET can create better pathways from school to work based on hands-on skills acquired by graduates. Effective TVET programs equip students with the practical skills, knowledge, and entrepreneurial tools that match labor market needs. Such programs provide quality training and accreditation in the field of study and directly link students to industry through apprenticeships. Last, it ensures that all students, regardless of gender, are equipped to make informed career choices, and provides equal access to both men and women to opportunities to sustainably improve their livelihoods. The study recommended that; it is important to have an effective TVET program as it would enhance the ability of the youth in their way from School to Work.

According to Akilah Institute for Women (2018) TVET programmes should be effective to achieve the expected results. In a study conducted by this institution

on the effectiveness of TVET programmes in Africa, if TVET courses are to be successful, their design must be “demand-driven, and the education and private sector development sectors must coordinate to ensure this is fulfilled and must be based on hands-on skills”. Akilah, located in Kigali, provides the finest example of how an education institution can become the bridge between what the vast labour market demands and what education institutions should supply.

Entrepreneurship skills and employment availability

Kuyini in a study entitled Barriers to youth employment conducted in 2014 in Ghana found that Youth do not have the ease of entry into the workforce or the work stability that their parents experienced. There is also greater demand by employers for entrepreneurship skills whereas a lot of young people pretend to possess soft skills as well as qualifications. The study highlighted that young people often struggle with the unfamiliar processes of the world of work, which frustrates employers who see workplace culture as the norm.

However, this study failed to display the role played by Entrepreneurship skills acquired from TVET in helping the youth to get employed. It only noted the increasing numbers of casual jobs. This situation of growth in casual contracts and part-time work mean many young people are in entry-level jobs, or in jobs for a short period of time.

In Rwanda, even if studies on Entrepreneurship skills acquired from TVET and youth employment are scarcer, Bizimana (2010) conducted a study on the Importance of TVET on matching skills and jobs in Rwanda, the case study of Karongi District. The study was both Qualitative and quantitative with the help of triangulation methods of data collection. The study concluded with the following findings: Many employers in Karongi District report difficulties in finding suitably skilled workers. Although part of these difficulties is related to Entrepreneurship skills gaps and deficits in specific sectors, occupations and regions, they are mostly explained by factors other than skills, such as uncompetitive wages, unattractive working conditions, poor recruitment policies and/or mismatch between the location of skills and jobs. As a result, many shortages could be addressed by changes in training and recruitment practices, as well as by facilitating labor mobility.

Even though this study raised the problem of mismatch on the employment market, it did not exhaust the subject on Entrepreneurship skills and promotion of jobs among young people. And, promoting jobs without paying due attention to their quality and to the skills required may only buy time and ultimately prolong the jobs crisis. He recognized that public employment services have an important role in ensuring that the return to job growth does not come at the expense of lower-quality skill matches. Activation strategies should not only focus on the immediate benefit of filling a job vacancy, but also consider the long-term consequences of training and placement decisions on individuals' employability and adaptability (Bizimana, 2010).

Materials and Methods

Research design: This research adopted the quantitative research design to assess family related variables influencing the decline of student enrollments in Tertiary institutions. According to Aliaga and Gunderson (2005), quantitative research design consists of elucidating a phenomenon by gathering data in the form of numbers and examining them by statistical analysis. The same author says that quantitative research design can be employed when one has narrative data as well. In this case, narrative (non-numerical) data is converted into numerical one by means of especially Likert scales. As Tanibas (2014) puts it, when narrative data turns out to be numerical, the technique is also deemed to be quantitative in nature. In fact, the researcher collected data based on people’s opinions which were translated into numerical data in order to generalize and draw conclusions regarding TVET related variables responsible of promoting employment opportunity among the youth in Rwanda.

Participants

Table 3.3 Workshops and sample

No.	Workshops	Number of TVET graduates	%
1	Agakiriro ka Jenda	29	30.5
2	Cooperative of Nyabihu Electricians (CONE Mukamira)	21	22.1
3	Kabatwa Site	18	18.9
4	Kora Site	15	15.8
5	Gasiza Site	12	12.6
Total	3	95	100

Source: Researcher, 2019

This research was conducted September, 2019-August, 2020. It was carried out in Nyabihu district where TVET graduates who participated to this research were met at their respective workshops. Indeed, in Nyabihu District, there are 5 public workshops and all of them have been included in the target population and sampled according to their members. These are Agakiriro ka Jenda in Jenda Sector with 29 respondents which represent 30.5% of the whole sample, Cooperative of Nyabihu Electricians (CONE Mukamira) in Mukamira Sector with 21 respondents which represent 22.1% of the whole sample, Kabatwa site in Kabatwa Sector with 18 respondents which represent 18.9% of the whole sample, Kora site with 15 respondents which represent 15.8% of the whole sample and Gasiza site in Rambura Sector with 12 respondents which represent 12.6% of the whole sample. The number of respondents was taken based on the number of TVET graduates working in each workshop. Indeed, Agakiriro ka Jenda is the big site in Nyabihu District and Gasiza is the smallest in terms of the number of TVET graduates working there. The total population of the survey is composed of all the TVET graduates living in Nyabihu District from 2017-2019. According to the annual report of Education in Nyabihu District, TVET graduates are 1883 persons from 2017-2019.

The sample size was derived from population of 1883 TVET graduates to be surveyed using the Yamane’s formula at a confidence interval of 90% and margin of error of 10% as described below (Grinner & William, 2000):

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

n is the minimum sample size

N is the population from which the sample was drawn and it is estimated at 1883 individuals.

e is the margin of error estimated at 10%. Substituting in the above formula, the sample size is determined as;

$$n = \frac{1883}{1 + 1883(0.10)^2} =$$

$$n = 94.96 = 95 \text{ respondents}$$

Research instruments

This study used structured questionnaire to collect data from the 5 sampled workshops. The study also used documentary review to collect secondary data (from journal articles, books, theses, etc.). The questionnaire contained close-ended questions only in the form of Likert scales (1=Strongly Disagree 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The participants had to tick the appropriate box with regard to their understanding.

Data Collection Procedures

Before collecting data, the researcher sought the authorization to collect research data from the mayor of Nyabihu district where 5 workshops were located. Before data collection, the researcher sought the informed consent from the respondents using an appropriate form. Before collecting the data, the researcher did a pilot study to establish the validity and reliability of the instruments and this was made using Cronbach’s alphas analysis. The pilot study was done by having 20 TVET graduates to fill the questionnaire and giving their feedback on it. This exercise was conducted in two workshop that was randomly selected. However, the selected workshops for pilot study were not involved again in collecting the real data. The data was taken out from the questionnaires and entered into SPSS 20. The following table show the obtained Cronbach’s alphas scores.

Table 1 : Results of reliability test

Variables	Number of items	Cronbach’s Alpha	Comments
Hands on skills	10	0.970	Accepted
Entrepreneurship skills	10	0.980	Accepted

According to Kombo (2006), the coefficient must be 0.7 and above to certify that the instrument was reliable. The results in Table 4.1 show that the coefficient of the reliability test is above 0.90. This result certifies that the instrument is reliable as the obtained coefficient is above 0.7 taken as the certification line.

Results

This research was set answer the following research question: What is the contribution of hands-on skills, as acquired from Rwandan TVET schools, in

promoting employment opportunities among the youth in Nyabihu district? What is the contribution of Entrepreneurship skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district?

The results presented below are about the descriptive statistics for all the involves dependent and independent variables.

Table 2 : Contribution of hands-on skills acquired from Rwandan TVET schools in promoting employment opportunities

Descriptive Statistics						
Options	N	Minimum	Maximum	Mean	Std. Deviation	
Hands-on skills acquired helped me to create a job	95	4.00	5.00	4.7263	.44821	
Hands-on skills acquired helped me to maintain the created job	95	3.00	5.00	4.1474	.63528	
Hands-on skills acquired helped me to gain a job	95	3.00	5.00	4.2947	.69762	
Hands-on skills acquired helped me to maintain the gained job	95	4.00	5.00	4.2842	.45343	
Hands-on skills acquired helped me to be promoted on my job	95	3.00	5.00	4.0105	.53584	
Hands-on skills acquired helped me to maintain my on-job promotion	95	4.00	5.00	4.1368	.34550	
Hands-on skills acquired helped me to increase my performance at work	95	4.00	5.00	4.4316	.49792	
Hands-on skills acquired helped me to maintain my performance at work	95	4.00	5.00	4.4421	.49927	
Hands-on skills acquired helped me to ensure my job security	95	4.00	5.00	4.2842	.45343	
Hands-on skills acquired helped me to maintain my job security	95	2.00	5.00	3.9895	.93961	
Aggregated mean and SD				4.2814	.68147	

N=95, Source: Primary data, 2020

Note: Strongly Disagree= [1-2]=**Very Low Mean**; Disagree= [2-3]=**Low mean**; Neutral= [3-4]=**Moderated mean**; Agree= [4-5]=**High mean**; Strongly Agree = [5]=**Very High mean**

The result in table 2 show that most of the respondents agree that Hands-on skills acquired from TVET have helped them to create a job (Mean=4.72; SD=0.44). They agree that Hands-on skills acquired from TVET have helped them to maintain the created job (Mean=4.17; SD=0.63). The respondents agree that Hands-on skills acquired from TVET have helped them to gain a job (Mean=4.29; SD=0.69). They also agree that Hands-on skills acquired from TVET have helped them to maintain the gained job (Mean=4.28; SD=0.45).

The results also show that the respondents agree that Hands-on skills acquired from TVET have helped them to be promoted on their respective jobs (Mean=4.01; SD=0.53). They also agree that Hands-on skills acquired from TVET have helped them to maintain their on-job promotion (Mean=4.13; SD=0.34). The respondents also agree that Hands-on skills acquired from TVET have helped them to increase their performance at work (Mean=4.43; SD=0.49). They agree that Hands-on skills acquired from TVET have helped them to maintain their performance at work (Mean=4.28; SD=0.45).

Also, the results show that the respondents agree that Hands-on skills acquired from TVET have helped them to ensure their job security (Mean=4.28; SD=0.45) and to maintain their job security (Mean=3.98; SD=0.93).

One interviewee told the researcher that the weakness of their career resides in the insufficiency of working places for TVET graduates in terms of workshops. Indeed, the whole District possesses one recognized workshop commonly known as “*Agakiriro ka Jenda*”. This workshop is the only place designed to be a springboard for putting into practice the subjects studied in TVET schools. Other places include small self-owned businesses where each graduate often operates informally.

These findings are similar to the results of Kuyini (2014). In Ghana, the contribution of hands-on skills acquired from TVET schools in promoting employment opportunities is judged very high by 85% of the respondents in the study conducted in 2014 entitled *Barriers to youth employment in Ghana*. On the questions related to hands-on skills and the promotion of employment opportunities, Kuyini’s study found that hands-on skills obtained from TVET schools are essential on job performance but are not enough to promote job creation. The conclusion is that hands-on skills obtained from TVET schools are very important in job creation, performance at work, job promotion and job security (aggregated Mean=4.28; SD=0.68). However, the importance on job creation and job security is very limited with their Mean falling under 4.20.

Table 3 : Contribution of entrepreneurship skills acquired from Rwandan TVET schools in promoting employment opportunities

Descriptive Statistics					
Options	N	Minimum	Maximum	Mean	Std. Deviation
E-Ship skills acquired from TVET helped me to create a job	95	2.00	5.00	3.0316	1.20683
E-Ship skills acquired from TVET helped me to maintain the create a job	95	2.00	4.00	3.0211	.93375
E-Ship skills acquired from TVET helped me to gain a job	95	2.00	5.00	3.6000	1.05589
E-Ship skills acquired from TVET helped me to maintain the gained a job	95	2.00	5.00	3.1789	1.12967
E-Ship skills acquired from TVET helped me to be promoted on my job	95	1.00	4.00	2.7474	1.27970
E-Ship skills acquired from TVET helped me to maintain my on-job promotion	95	1.00	4.00	2.7474	1.27970

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E-Ship skills acquired from TVET helped me to increase my performance at work	95	2.00	5.00	3.1684	1.13599
E-Ship skills acquired from TVET helped me to maintain my performance at work	95	2.00	5.00	3.3526	.90822
E-Ship skills acquired from TVET helped me to ensure my job security	95	1.00	5.00	3.1895	1.46080
E-Ship skills acquired from TVET helped me to maintain my job security	95	1.00	5.00	3.1789	1.24609
Aggregated Mean and SD	95			3.0142	1.17453

N=95, Source: Primary data, 2020

Note: Strongly Disagree= [1-2]=**Very Low Mean**; Disagree= [2-3]=**Low mean**; Neutral=[3-4]=**Moderated mean**; Agree= [4-5]=**High mean**; Strongly Agree = [5]= **Very High mean**

The result in table 4.3 shows that the respondents disagree with some items retained on this objective and remain neutral with others. Indeed, they are neutral that Entrepreneurship skills acquired from TVET have helped them to create a job (Mean=3.03; SD=1.20). The respondents are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain the created job (Mean=3.02; SD=0.93). They are also neutral that Entrepreneurship skills acquired from TVET have helped them to increase their performance at work (Mean=3.16; SD=1.13). They are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain their performance at work (Mean=3.35; SD=0.90). They are neutral that Entrepreneurship skills acquired from TVET have helped them to ensure their job security (Mean=3.18; SD=1.46). And they are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain their job security (Mean=3.17; SD=1.24). The respondents are neutral that Entrepreneurship skills acquired from TVET have helped them to gain a job (Mean=3.60; SD=1.05). They are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain the gained job (Mean=3.17; SD=1.12).

On the other hand, they disagree that Entrepreneurship skills acquired from TVET have helped them to be promoted on their jobs (Mean=2.74; SD=1.27). And they disagree that Entrepreneurship skills acquired from TVET have helped them to maintain their on-job promotion (Mean=2.74; SD=1.27).

In an interview with one of the teachers of TVET school met “*Agakiriro ka Jenda?*”, the researcher was told that Entrepreneurship skills offered by TVET are not fully exploited. According to him, in Entrepreneurship lessons, students are taught how they could create their own jobs. However, very few are those who have been able to create their own jobs. The interviewee also pointed out the financial problems which handicap graduates from creating their own jobs.

This situation is almost the same in other sites gathering a good number of graduates of TVET schools in other African countries because Karikari *et al* in their study conducted in 2015 on Effective Components of a Technical and Vocational Education Program: The Nigerian Case, they found that the program emphasize on promoting Hands-on skills rather than other skills including Entrepreneurship skills. The study also recommended that; the effort

made on promoting Entrepreneurship skills should be increased if the graduates have to be equipped with a solid knowledge which can help them to create their own jobs.

The study put more emphasize on how TVET should promote entrepreneurship. Indeed, TVET, at all levels including tertiary programmes, should be a main contributor to entrepreneurship skills acquisition in both its senses. Entrepreneurship is more relevant to TVET than to most other types of education.

In Rwanda, Bizimana (2010) also found similar situation as he conducted a study on the *Importance of TVET on matching skills and jobs in Rwanda, the case study of Karongi District*. The study was concluded with the following findings: In a context of dynamic and complex labour markets, gathering intelligence on current and future skill needs can support better matching of training and jobs, which is of paramount importance for every country in the world and in Rwanda in particular. Skills matching can also help reduce unemployment, particularly among young people, build a better life for individuals by improving employability, social mobility and inclusion. The conclusion is that entrepreneurship skills acquired from Rwandan TVET schools are not fully exploited and their role in promoting employment opportunities is limited in Nyabihu District with the aggregated Mean of 3.01 and SD of 1.17.

Discussion

As earlier mentioned, this study was aimed to assess the contribution of TVET related variables on promoting employment opportunities among the youth in Nyabihu district by answering the following research question: What is the contribution of hands-on skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district? What is the contribution of Entrepreneurship skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district?

The contribution of hands-on skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district Regarding research question number one, it was found that hands on skills as acquired from Rwandan TVET schools, have a positive significant contribution in promoting employment opportunities among the youth in Nyabihu district. In order to achieve this, 10 items or options have been used and the respondents ticked the appropriate box according to their choices. The respondents agree that Hands-on skills acquired from TVET have helped them to create a job (Mean=4.72; SD=0.44). They agree that Hands-on skills acquired from TVET have helped them to maintain the created job (Mean=4.17; SD=0.63). The respondents agree that Hands-on skills acquired from TVET have helped them to gain a job (Mean=4.29; SD=0.69). They also agree that Hands-on skills acquired from TVET have helped them to maintain the gained job (Mean=4.28; SD=0.45). The results also show that the respondents agree

that Hands-on skills acquired from TVET have helped them to be promoted on their respective jobs (Mean=4.01; SD=0.53). They also agree that Hands-on skills acquired from TVET have helped them to maintain their on-job promotion (Mean=4.13; SD=0.34). The respondents also agree that Hands-on skills acquired from TVET have helped them to increase their performance at work (Mean=4.43; SD=0.49). They agree that Hands-on skills acquired from TVET have helped them to maintain their performance at work (Mean=4.28; SD=0.45). Also, the results show that the respondents agree that Hands-on skills acquired from TVET have helped them to ensure their job security (Mean=4.28; SD=0.45) and to maintain their job security (Mean=3.98; SD=0.93). The conclusion is that hands-on skills obtained from TVET schools are very important in job creation, performance at work, job promotion and job security (aggregated Mean=4.28; SD=0.68). However, the importance on job creation and job security is very limited with their Mean falling under 4.20.

The contribution of Entrepreneurship skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district

Concerning research question number two, the respondents disagree with some items retained on this variable and remain neutral with others. Indeed, they are neutral that Entrepreneurship skills acquired from TVET have helped them to create a job (Mean=3.03; SD=1.20). The respondents are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain the created job (Mean=3.02; SD=0.93). They are also neutral that Entrepreneurship skills acquired from TVET have helped them to increase their performance at work (Mean=3.16; SD=1.13). They are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain their performance at work (Mean=3.35; SD=0.90). They are neutral that Entrepreneurship skills acquired from TVET have helped them to ensure their job security (Mean=3.18; SD=1.46). And they are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain their job security (Mean=3.17; SD=1.24). The respondents are neutral that Entrepreneurship skills acquired from TVET have helped them to gain a job (Mean=3.60; SD=1.05). They are neutral that Entrepreneurship skills acquired from TVET have helped them to maintain the gained job (Mean=3.17; SD=1.12). On the other hand, they disagree that Entrepreneurship skills acquired from TVET have helped them to be promoted on their jobs (Mean=2.74; SD=1.27). And they disagree that Entrepreneurship skills acquired from TVET have helped them to maintain their on-job promotion (Mean=2.74; SD=1.27). The conclusion is that entrepreneurship skills acquired from Rwandan TVET schools are not fully exploited and their role in promoting employment opportunities is limited in Nyabihu District with the aggregated Mean of 3.01 and SD of 1.17.

Conclusion

As said in the preceding pages, there are various policies, laws, regulations, guidelines and plans providing directions to promotion of employment in Rwanda. Having implemented many interventions, this study wished to investigate the contribution of TVET program in promoting employment opportunities in Rwanda. The overall results showed that the promotion of employment in Nyabihu District is highly correlated to TVET as it allows its graduates to acquire additional knowledge of hands-on skills and entrepreneurship skills.

In sum, concerning Objective 1, it has been found that hands-on skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district is very high. Concerning Objective 2, it has been found that the contribution of Entrepreneurship skills, as acquired from Rwandan TVET schools, in promoting employment opportunities among the youth in Nyabihu district is in a middle level.

Recommendations

Based on the study findings the study recommends the following: 1. The government should put in place a fund that would help TVET graduates to be able to create their own job because the researcher found that financial problems constitute a major handicap in the domain of job creation; 2. The courses related to Entrepreneurship should be strengthened because the results showed that a lot of graduates have not enough benefited from its content and the Ministry of Education should work on this; 3. There should be a close collaboration between curriculum planners and firms or industries so that the graduands have updated skills.

Acknowledgement

I am so grateful for all the people who contributed to the completion of this article. Most importantly I am thankful for the Mayor of Nyabihu district who authorized and facilitated the process of data collection; the TVET graduates who accepted to participate to this study by filling the questionnaires and my colleagues who provided constructive inputs to make this work a success.

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