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Baseline Study

ACCOUNTABLE GOVERNANCE AND LEADERSHIP IN TVET SCHOOLS IN RWANDA

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**ACCOUNTABLE GOVERNANCE
AND LEADERSHIP IN TVET
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1. INTRODUCTION

Technical and Vocational Education and Training (TVET) is concerned with the acquisition of knowledge and skills for the world of work. In the past, various terms have been used to describe elements of the field that are now conceived as comprising TVET. Increasing the effectiveness of vocational education and training (VET) to promote economic growth, employment, and social cohesion is pivotal for developing countries. Enabling stakeholder engagement to raise attainment in TVET can support sustainable economic growth, job creation, and citizens' welfare, and are applicable in every country and region in the world. Practice shows that accountable school governance and leadership are highly correlated with the overall TVET attainment. Governance influences the formulation and implementation of policies and forms the basis on which policies are further monitored and reviewed (ETF, 2013). Good governance, accountability, and management are being highlighted in how schools are organized and run in many countries. The evidence examined by several studies indicates that effective school leadership is important and raises attainment (EDT, 2014).

According to a report by the MasterCard Foundation (2019) Governance, in general, refers to structures and processes that are designed to ensure accountability, transparency, equity and inclusiveness, empowerment, and broad-based participation. Good governance is a major factor in improving the quality of education. It is common knowledge that all those who have a stake in the educational system know too well the crises facing present-day formal education. Accountability is a fundamental requirement of good governance. Accountability in education is the movement geared toward ascertaining the extent of the goals and objectives of education. Accountability demands sound management of decisions, policies, constant supervision, and monitoring of the education system (Nimota Jibola Kadir, 2019).

When people talk about holding schools accountable for results, the dominating discourse across the world tends to be related to managerial accountability. This has to do with a shift in focus on accountability policies during the last decades; from a focus on providing educational inputs and processes, to a focus on measurable outcomes. It means that schools and other stakeholders are held accountable for generating improvement in student learning outcomes, and attainment. A review of the literature on TVET implementation revealed little information on the roles local community stakeholders, including students, PTA, education workers, administrative heads, and elders or chiefs, can play in these endeavors, especially in influencing TVET attainment. Based on the above arguments from the literature, this study aims to stress the pivotal role of stakeholders and governance in fostering attainment in training and vocational schools in Rwanda.

1.1. Background of the study and rationale

TVET can be broadly interpreted as the development of ways of learning and the acquisition of attitudes that facilitate success at the workplace (UNESCO, 2019). TVET plays an important role in supplying skills requisite for improved workers 'productivity, economic competitiveness, occupational integration, raising income levels, and expanding opportunities for employment (Ngure, 2013). As revealed by the findings by Forh, (2014) TVET plays important role in the human capital and economic development of a nation. A trained and competent workforce is critical to the level of productivity of any economic system, the human development of a nation, and the standard of living of its people. The relevance of TVET and the advantages it accrues to individuals, especially the poor, rural dwellers, minorities, and disadvantaged groups. The adoption of TVET policies has also been linked to sustainable development for rural communities (IPA, 2014).

In Rwanda, in the last couple of years, Technical and Vocational Education and Training (TVET) have been an important component within the government policy to end poverty. A reform of the TVET sector has been approved in 2008 (WDA, 2019). According to MINEDUC (2008), different providers at various qualification levels have delivered TVET in Rwanda. Technical education is offered at the upper secondary school level; both by public schools under the Ministry in charge of education and by private schools and those belonging to faith-based organizations. VET is among the targeted areas of improvement in the Government programme.

Investment in TVET (Technical and Vocational Education and Training) is paving the way to Rwanda's socio-economic development as a diversified economy with a high skills level in the workforce. TVET is vital for technological progress, rapid industrialization as well as wealth creation, and poverty reduction. TVET plays an important role to catalyze Rwanda's socio-economic development more effectively by developing a responsive and increasingly vibrant labor market (GIZ, 2020). To achieve rising employability among its youth, a country should allocate adequate resources for modernizing teaching and learning facilities in TVET schools and for continuous professional capacity development for their teachers (British Council, 2017).

TVET has historically been positioned as "second chance" or "second rate" education. In many countries, young persons who are seen as "academic underachievers" are shunted into TVET programs and institutions thus reinforcing negative perceptions and a low valuation of TVET (MINEDUC, 2015). The only way to change perceptions is to demonstrate the positive outcomes that can be achieved from TVET and to orientate students' attitudes towards the benefits of studying TVET qualifications, as opposed to academic ones (ILO, 2020). Enhancing the status and attractiveness of TVET will involve changing perceptions and attitudes of the public about technical and vocational education. According to OECD, (2016a), devolving the governance of TVET is an issue of growing interest to countries across the world as they seek to improve the effectiveness of their vocational education and training systems to meet increasing economic and social demands.

In the same context, the government of Rwanda considers the TVET as an important ingredient in its process of becoming a knowledge-based economy that will lead to the upper-income country status. As explained in the TVET policy published by MINEDUC, (2008), to achieve this, the government of Rwanda has been very conscious of TVET in all its short- and long-term development aspirations. The National Strategy for transformation NST1 planned to increase the number of TVET graduates with relevant skills to meet labor market demand. However, TVET was prioritized among national aspirations but it is still facing some challenges for achieving the intended results. For instance, there are still challenges with an adequate supply of TVET infrastructure and equipment, there are other pressing challenges affecting the quality and relevance of training in the TVET sub-sector: (i) many teachers lack adequate qualifications or have little or no practical experience in the relevant fields; (ii) training programs in some of the promising emerging industries, where there are highly active demands for skills, are still missing or slow to be scaled up; (iii) the examination system of TVET tend to measure only theoretical achievements; and (iv) links with potential employers are often missing or too weak, creating disconnects between training and the reality of industries, (v) lack or poor institutionalized research between education and the labor market. This leads to limited innovations and adaptations within the TVET system. In addition, under-funding has been a chronic structural problem in the TVET sector (World Bank, 2017).

Furthermore, some of IPRCs were reported with the issue related to poor contract management in their procurement process that for the fiscal year 2016-2017 resulted in the abandoned works in IPRC EAST. As the poor contract management issues related to the procurement weakness, it is very difficult to detach the procurement malfunctioning and risks of corruption (World Bank, 2017). Moreover, transparency international Rwanda in its annual Rwanda bribery index published in December 2019 ranked the TVET as the most service affected by bribe with 12.80%. This percentage has increased compared to the one in 2018, which was 7.14%. Most corrupt practices were experienced in the process of getting a certificate, seeking to get a temporary job and looking for an internship (TI Rwanda, 2019). Within this context, it seems that there are not enough studies assessing challenges related to corruption in TVET in Rwanda but there are facts that TVET in the same region are suffering from corruption risks and corrupt practices.

The facts that few studies revealed some challenges including corruption that hindering the performance of TVET in Rwanda, considering that corruption risks and performance constraints exist in other countries in the region, there is a strong need to extensively assess context and dimensions through which TVET in Rwanda is affected by corruption practices and other performance gaps and limitations. It is in this perspective that TI-RW in partnership with Leadership Quantum intends to contribute by ensuring to which extent TVET are affected by corruption risks and propose an accountable leadership training approach to address governance issues. This project will widely inform the Government of Rwanda on possible breaches in the implementation of TVET policy and well as proposes reliable strategies to effectively achieve intended results. The baseline study on accountable governance and leadership in TVET schools in Rwanda intends to provide evidence on the above-mentioned matters to inform the strategies and actions to be taken.

1.2. Objectives of the study

The main objective of this study is to generate a baseline basket of indicators elucidating current performance gaps, quality issues, and corruption risks across the TVET sector in Rwanda.

Specific objectives

Specific objectives include:

- i. Examine the level of performance of TVET vis –a- vis their mandate and identify existing performance gaps and reasons behind
- ii. Assess the quality of programs offered vs the market need, the capacity of TVET schools, and the status of the TVET management aspect
- iii. Analyze students' satisfaction with the quality of education provided in TVET (defined by employability criteria),
- iv. Measure the satisfaction of Employers (private sector) of TVET graduates with quality of education;
- v. Determine factors underpinning institutional governance failures,
- vi. To determine the level of corruption prevalence in the TVET sector, its different types, and determining factors
- vii. Propose recommendations to ensure effective performance of TVET institutions and increase the quality of TVET produces.

2. LITERATURE REVIEW

Education is acknowledged as a means for transforming and empowering communities. In light of the job crisis and skills mismatch between labor market needs and training provided by general education systems in many countries, it has become widely recognized that TVET provision is an important, even growing, part of national education systems and any skills development agenda (ILO, 2015). As asserted in various studies, TVET can be broadly interpreted as the development of ways of learning and the acquisition of attitudes that facilitate success at the workplace. It plays an important role in supplying skills requisite for improved workers' productivity, economic competitiveness, occupational integration, raising income levels, and expanding employment opportunities. TVET encompasses on-the-job training, apprenticeships, vocational secondary schools, sector-specific TVET institutions, and vocational pathways within comprehensive school's aspects which can serve as practical and effective ways of skills upgrading (British Council, 2018; IPA, 2014).

2.1. TVET governance

Education systems in general serve three main purposes: individual control ability, human capital, and equality of opportunity. The human capital function is to provide sufficient labor both qualitatively and quantitatively. TVET should prepare young people to enter the labor market through meaningful and effective education processes while providing entry into the labor market (Wiederhold & Riva, 2013). As discussed in the study by Chinyere Shirley, Ayonmike, et al., (2015), TVET leaders need to assure that quality is directly related to the achievement of the learning outcomes (knowledge, skills, and competence achieved at the end of the learning process) that fulfills the key stakeholders' expectations.

As it is well known, good TVET benefits individuals, societies, and industries. Individuals can continuously update and re-orient their skills over time, and the industry has workers who can facilitate growth and spur innovation (ILO, 2020). Therefore, good governance should be given a lot of attention in TVETs. Good governance for TVET is realized when functions, strategies, and goals are coherent and fulfilled.

2.1.1. Evidence on governance mode in TVET

TVET is not a poverty-specific policy, but one of its key roles is to provide individuals with access to the economy while providing the economy with skilled human resources. Within this regard, Wiederhold & Riva, (2013) mentioned outcome-oriented incentives as a helpful tool in TVET good governance. Several studies find that incentivizing outputs instead of focusing on funding inputs helps meet goals, limit corruption, and encourage efficiency. Unlike general education, TVET must interact with employment. As argued by several authors the relationship between education and employment can be structured in various ways (OECD, 2016a). TVET programmes must fit the enterprises where training takes place, encourage cooperation among actors from the education and employment systems (Asian Development Bank, 2009). Linking education- and employment-system actors is an important determinant of TVET quality. Wiederhold & Riva, (2013) indicate that higher education-employment linkage in countries' largest TVET programme is likely correlated with improved youth labor market outcomes for the country overall. Additionally, linking education and employment features is also prominently in UNESCO's recommendations on TVET (UNESCO, 2016).

2.2. Challenges faced by TVET in developing countries

The problems ranging from the limited number of technical institutes available in the country, lack of facilities and materials for training students, inadequate technical teachers or facilitators, a limited number of training institutions for technical teachers, and difficulty in career progression. As mentioned in the report by ILO, (2015), in light of the job crisis and skills mismatch between labor market needs and those provided by general and vocational education systems in many countries, it has become widely recognized that TVET provision is an important, even growing, part of national education systems and any skills development agenda. At the same time, the capacity of the TVET sector to adequately respond to these challenges through the provision of high-quality and relevant skills development programmes depends largely on the quality of its teachers and trainers, and, by extension, the quality of its teachers training programmes.

Skills development in developing countries is important for economic development, poverty mitigation, and social inclusion. However, despite this important role that TVET plays in addressing labor challenges, in major policy documents there lacks an explicit approach by which this role can be achieved in less developed countries. This failure to fully embrace the role of skill training is particularly baffling because most African governments and donor countries are consistent in emphasizing the need for intensive structures that shape the human capital of the marginalized (Ngure, 2013).

As qualitative TVET is increasingly recognized as the bedrock of every development, quality assurance, therefore, is an indispensable process for achieving the national goals in TVET which will, in turn, lead to the production of qualitative human capital for sustainable national development (UNESCO, 2016). In TVET, quality is directly related to the achievement of the learning outcomes (knowledge, skills, and competence achieved at the end of the learning process) that fulfills the key stakeholders' expectations: - students, parents, employers, and community in general (ILO, 2015). However, over the years Africa TVET programmes are bedeviled with numerous challenges that have been affecting the quality of TVET programmes both in output and input. According to various authors, these challenges include inadequate funding of TVET; inadequate infrastructures; poor power supply; shortage of qualified TVET teachers/ instructors; poor supervision of TVET programmes; inadequate curriculum planning and implementation (Chinyere Shirley et al., 2015). As mentioned in the report by ADB, (2014), a Lack of essential inputs compromises the quality of training in many countries. Poor educational attainment of incoming trainees limits skill achievements. The level of skills and knowledge of teachers and work-based instructors is a key determinant of the quality of any country's system of education and training. Although, Inadequate numbers and qualifications of instructors are among the main factors responsible for the low quality of instruction.

2.3. TVET system in Rwanda

Rwanda has clear aspirations to accelerate inclusive economic and social development. The National Strategy for Transformation (NST 1) outlines the overall mid-term development strategy of Rwanda. In particular, the NST 1 has the pillar, Social Transformation, which has a goal and objective to develop Rwandans into capable and skilled people with quality standards of living in a stable and secure society. The goal and objectives are to be achieved through the priority area to enhance the demographic dividend through improved access to quality education. To achieve the goal and objective, the Ministry of Education (MINEDUC)



spearheads Technical Vocational Education and Training (TVET) as one of the priorities. The Education Sector Strategic Plan (ESSP) states its clear TVET strategy that utilizes competency-based training and assessment (CBT/CBA) into TVET. To do so, ESSP emphasizes on CBT/CBA quality management system by Workforce Development Authority (WDA, 2019).

In the past, TVET had a bad reputation in Rwanda and was considered as the second choice where higher learning institutions attracted more students. Today TVET has been taken as government priority as one of the sectors which will play a demonstrated role in Rwandan economic growth. The Rwandan Government targets that 60% of secondary students choose TVET and 40% go for general education and universities. Rwandan Technical and Vocational Education and Training system provide young people and the unemployed with the skills to gain productive employment and also provides those already in employment with an opportunity to upgrade their skills, including entrepreneurs and those wishing to work for themselves (GIZ, 2020).

2.3.1. TVET Institutional arrangement in Rwanda

TVET has emerged as one of the most effective human resource development strategies that Rwanda has embraced in order to train and modernize the technical workforce for national development. Since its development in 2008, the Government has put efforts to expand the TVET and attract foreign investments and produce a competent laborforce. Since then, technical and vocational education and training (TVET) initiatives and projects have been increasing and key stakeholders have been involved.

❖ Ministry of Education

The line ministry for TVET is MINEDUC. The mandate of the Ministry of Education as far as TVET is concerned is to plan and coordinate all TVET policy-related activities. It has a responsibility for the development of strategies and ensures that all required legal instruments are in place. The Ministry monitors and evaluates the whole system and puts in place correctional policies, strategies, and legal instruments to ensure that the quality, relevance, and access standards are met.

❖ Rwanda TVET Board (RTB)

Rwanda TVET Board (RTB) is a government institution established in 2020 by the presidential order No N° 123/01 of 15/10/2020 published in Official Gazette N° 32 bis of 19/10/2020. It was established under the Ministry of Education and is mandated with the coordination of all programs, projects, and activities that can fast-track the development of TVET in Rwanda, at level one (1) through level five (5). The newly established Rwanda Technical and Vocational Education and Training Board (RTB) has taken over part of the responsibilities of the Workforce Development Authority (WDA), an institution that was dissolved in an ongoing restructuring in public service.

RTB was established alongside National Examination and School Inspection Authority (NESA), to take over the mantle of the former Workforce Development Authority (WDA), an institution that was dissolved as part of the ongoing restructuring in public service.

❖ **Rwanda Polytechnic (RP)**

Rwanda Polytechnic was established by the Government of Rwanda in 2017 to implement Technical and Vocational Education and Training (TVET) skills development across the country. The Government of Rwanda (GoR) has been focusing on a development agenda aimed at transforming Rwanda and the expansion of the TVET system with collaboration from development partners, private sector actors, and civil society is part of this initiative.

❖ **The Higher Education Council (HEC)**

To support it in transforming higher education the Government has established the Higher Education Council as an independent Government Agency. The Higher Education Council is responsible for ensuring the structure, organization, and functioning of higher education institutions and monitoring and evaluating the quality and standard of provision, and ensuring the quality enhancement of teaching and research. It advises the Minister in charge of Higher Education on all matters relating to the accreditation of higher education institutions. One of the key responsibilities of the Higher Education Council is to act as a regulatory agency.

❖ **National Examination and School Inspection Authority (NESA)**

National Examination and School Inspection Authority (NESA) is a government institution established in 2020 by the presidential order No N° 123/01 of 15/10/2020 published in Official Gazette N° 32 bis of 19/10/2020. It was established under the Ministry of Education, to be at the center by monitoring the implementation of Norms and Standards through school inspections and also administrate the comprehensive assessments from level one (1) to level (5) in TVET and Basic Education in line with Competence-Based Curriculum / Training.

Previously, it appeared that the WDA was the sole organization in charge of all secondary and tertiary TVET schools and that the WDA served the same implementation and regulatory role. Which led to the emergence of governance gaps in the TVET sector (Carrying out implementation duties and assess your effectiveness as a regulator). As can be seen in the study, the government has made significant reforms, especially in setting up various institutions that manage the TVET sector. Where regulatory and implantation responsibilities were vested in the WDA alone, regulatory bodies and implementation agencies have now been established. So it is clear that this reform gives more prominence to improving governance in the TVET sector in the future, and addressing the issues raised in this study.

2.3.2. TVET qualification framework

The Rwanda TVET Qualification Framework (RTQF) structure and architecture consist of seven levels set out in a single strand (WDA, 2019). The Foundation Level or Transcript level has no level descriptors and contains both general and TVET education. The basic skills level caters for pathways (entry or access points) for non-formal and informal TVET, while level three to seven provide pathways for school-based TVET. All levels of the RTQF except the TVET foundation level have Level Descriptors described in terms of the required Knowledge, Skills, and Competence (KSC) that needs to be achieved in qualifications at each of the levels (GIZ, 2020). Essentially two measures are used to place qualifications into the RTQF:

- ✓ The level of complexity of the learning outcomes to be achieved; and
- ✓ The volume or amount of learning, as measured by student notional learning hours and the credit attached to each program or course.

It is a 7-level framework that includes a Foundation Level as Level 1, four TVET Certificates (at Levels 2 to 5), a TVET Diploma at Level 6, and an Advanced TVET Diploma at Level 7. At Level 5, the current Year 12 Technical School Graduation qualification is shown as being at the same level as TVET Certificate III. In the TVET subsector, a person can be accepted as a student if the education provider considers that he/she has adequate requirements for completing the level. The students may include prior learning in the qualification and use it to replace compulsory, elective, or free-choice studies (GIZ, 2020).

Table 1: TVET Qualifications

RTQF Level	Qualifications	Level Summary
7	Advanced Diploma	Graduates at this level will have broad knowledge and skills for highly skilled work that requires judgment and defined responsibility in known or changing contexts
6	Diploma, TVET	Graduates at this level will have specialized knowledge and skills for skilled work that requires limited responsibility in known or changing contexts
5	TVET Certificate III	Graduates at this level will have theoretical and practical knowledge and skills for work that requires taking limited responsibility in known and stable contexts
4	TVET Certificate II	Graduates at this level will have knowledge and skills for work on routine tasks in a defined context that requires limited judgment
3	TVET Certificate I	Graduates at this level will have knowledge and skills for initial routine work that requires supervision

Source: (GIZ, 2020)

2.3.3. Quality assurance in TVET schools in Rwanda

In all countries worldwide, fast-changing technical developments and global competition are leading to a growing demand for well-qualified workforces; investments in education are an important means for Rwanda to keep pace internationally, as well as contributing to increased

social cohesion. Financial investments alone are not sufficient to make TVET attractive, socially inclusive, and competitive – the quality of TVET must be considered too.

Quality can be defined in many different ways. For instance, it can mean excellence, zero defects, uniform quality, satisfying customer needs, or operational improvement. Instead of creating a pervasive and unequivocal definition of TVET quality, it is more relevant to examine it as a relative and contextual concept. Quality is always bound to satisfying customer needs. Defining quality is ultimately a common task for TVET providers and their key customer and stakeholder groups.

The development of quality TVET demands a clear division of roles and responsibilities of the key stakeholder in the TVET landscape. Developing and assuring institutional quality remains with the authorities in charge of TVET, though many other stakeholders like the private sector play a vital (cooperation) role. However, in Rwanda 4 main players were identified and assigned to cascading the development and maintenance of quality TVET. The table below describes their different roles in the process of establishing TVET quality. While this handbook targets the management staff of TVET providers as users it was considered being an important step to design a TVET Quality Management process involving all authorities to ensure a coherent system (WDA, 2019).

Table 2: Quality standards in TVET

Key player / Stakeholder	Role and Responsibilities
MINEDUC	<ul style="list-style-type: none"> ✓ Monitor and evaluates the whole system and put in place correctional policies, strategies, and legal instruments to ensure that the quality, relevance, and access standards are met ✓ To plan and coordinate all TVET policy-related activities. ✓ Development of strategies and ensures that all required legal instruments are in place
RTB	<ul style="list-style-type: none"> ✓ To design and distribute curricula, teaching materials, trainer’s guides, methodologies and establish training methods for technical and vocation education and training from level one (1) to five (5); ✓ To promote the use of information and communication technology in technical and vocation education and training from level one (1) to five (5); ✓ To coordinate and fast track technical and vocation education and training programs and activities; ✓ To coordinate programs and activities to ensure trainers development, build their capacities and monitor their management; ✓ To advise the Government on all activities which can fast track technical and vocation education and training development in Rwanda

<p>NESA</p>	<ul style="list-style-type: none"> ✓ Supervise and coordinate the implementation of TVET laws, Policies, and regulations related to Norms and Standards. ✓ Supervise and coordinate preparation and implementation of annual action plans for the division of TVET Quality Standards ✓ Provide technical and professional advice to her/his supervisor on TVET Norms and Standards ✓ Supervise and coordinate the development and/or implementation of standards, norms, criteria guidelines, and procedures for school accreditation and quality assurance, and Validate them ✓ Plan, organize, coordinate, supervise and evaluate the capacity building of inspectors as per areas of priority. ✓ Disseminate validated standards, norms, criteria, guidelines, and procedures for school accreditation and quality assurance. ✓ Prepare and submit periodic reports on the situation of TVET norms and quality standards
<p>RP</p>	<ul style="list-style-type: none"> ✓ To prepare technical and vocational education curricula for their use at various technical and vocational training levels and submit them to the competent authority for approval ✓ To offer technical and Vocational courses leading to certificate or Diploma ✓ To provide science- and technology-based technical and vocational training as well as education which enable the beneficiary to create jobs for personal development and contribute to national development; ✓ To carry out and promote research and technology in technical and vocational fields and disseminate their findings to foster national development; ✓ To participate in the discovery, exchange, and preservation of knowledge in technical and vocational fields; ✓ To promote education, culture, and Rwandan values; ✓ To impart knowledge required to provide technical and vocational education and apprenticeship training; ✓ To offer in-service training to practitioners in various fields to develop their technical and vocational skills; ✓ To coordinate programmes and activities aimed at developing teaching and research staff within institutions of technical and vocational education, upgrade their knowledge and skills capacities and improve their management; ✓ To contribute to finding solutions to other problems related to national development; ✓ To cooperate and collaborate with other national, regional, or international institutions with a similar mission to achieve its mission.
<p>HEC</p>	<ul style="list-style-type: none"> ✓ To act as a regulatory agency. ✓ Ensuring the structure, organization, and functioning of higher education institutions and monitoring and evaluating the quality and standard of provision ✓ Ensuring the quality enhancement of teaching and research ✓ Advises the Minister in charge of Higher Education on all matters relating to the accreditation of higher education institutions ✓ Advises the Minister in charge of Higher Education on issuing operating agreements to private sector higher education institutions ✓ Reviewing and Approving applications for programs and operating agreements.
<p>TVET Providers</p>	<ul style="list-style-type: none"> ✓ Quality Standards: to implement quality standards

	<ul style="list-style-type: none"> ✓ Quality Audit: to conduct self-assessment, and to provide all necessary information ✓ Accreditation: to conduct self-assessment, and to provide all necessary information with application ✓ Quality Assurance: to improve TVET quality based on mentoring and coaching
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Source: Compiled by Researcher, 2021

2.3.4. Challenges faced by TVET schools in Rwanda

Several systemic and institutional constraints face the current TVET system and account for the low skills base and the growing gap between what is produced by the institutions and what is expected by the labor market and companies. Most of these are being addressed under current strategies. Its main strength is the good structure and that the Government aims for national standards while its main weaknesses are the lack of capacities in management and trainers as well as the weak linkages between public and private sector. The companies complain about unskilled graduates according to different skills surveys highlighting the unsatisfied need for qualified employees in skilled crafts (GIZ, 2020).

While there are still challenges with an adequate supply of TVET infrastructure and equipment, there are other pressing challenges affecting the quality and relevance of training in the TVET sub-sector: (i) many teachers lack adequate qualifications or have little or no practical experience in the relevant fields; (ii) training programs in some of the promising emerging industries, where there are highly active demands for skills, are still missing or slow to be scaled up; (iii) the examination system of TVET tend to measure only theoretical achievements; and (iv) links with potential employers are often missing or too weak, creating disconnects between training and the reality of industries, (v) lack or poor institutionalized research between education and the labor market. This leads to limited innovations and adaptations within the TVET system. In addition, under-funding has been a chronic structural problem in the TVET sector (World Bank, 2017).

Currently, most public TVET institutions just receive enough budgets to pay the salaries of the trainers, but not to procure the necessary equipment, tools and consumables, particularly needed to skill TVET students. It is the responsibility of parents and trainees to pay (school fees) for the school to get required resources such as workshops, equipment, consumables, other infrastructures, required resources for boarding schools, etc. TVET Education seems expensive due to the use of tools, materials during practical sessions which are not affordable for a number of families (GIZ, 2020).

In general, the private sector (companies) are involved in the curriculum development, assessment, and occupational analysis and delivery of apprenticeship, internship, industrial-based training. The number of workplace learning opportunities provided by companies does not meet the growing demand; capacities of companies to appropriately train, guide, and supervise interns and apprentices are underdeveloped; many of the existing workplace learning schemes are not certified; and finally, necessary systems, structures and regulations to foster and manage workplace learning are not effective, and minimum quality standards are missing (GIZ, 2020).

3. METHODOLOGY

3.1. Approach

The study used both a quantitative and a qualitative approach. The use of both approaches allows the research team to triangulate collected data and information and therefore increase the validity and reliability of the findings. Under the quantitative approach, the baseline study used a structured questionnaire, which was administered to sampled respondents. The questionnaire was designed based on the study objectives. Four (4) research questionnaires were developed according to the four categories of respondents (TVET teachers, TVET students, TVET graduates employers, and TVET administrative staff).

As regards the qualitative approach, the study used three (3) major data collection methods including focus group discussions (FGDs), key informant's interview (KIIs), and desk review.

3.2. Sampling strategy

A purposive random sampling technique was used to guide the selection of districts, sectors, to eventually reach individual respondents (TVET students, teachers, administrative staff, and employers of TVET graduates). Two districts were selected from each province and the City of Kigali is Ten (10) districts across the country based on the fact that the district has a TVET school. At least Four TVET schools were selected in each district which makes a total of 40 TVET schools surveyed in this study (see the list on Annex 1). Regarding the sampling frames, the following lists were considered:

- ✓ List of employers of TVET graduates (to be availed in collaboration with Head Masters)
- ✓ List of teachers (available at TVET school)
- ✓ List of students (available at TVET school)
- ✓ List of TVET administrative staff (available at TVET school)

The sample size was computed using the formula below.

$$n = \frac{N (z s/e)^2}{N + (z s/e)^2}$$

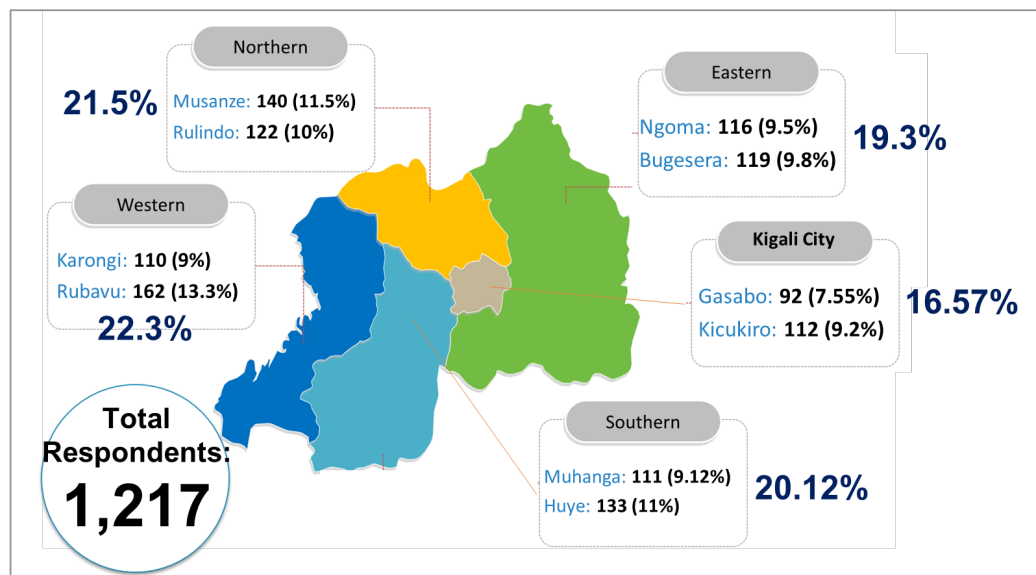
Where:
z = 1.96 for 95% level of confidence
s = p (1-p) p = estimated proportion
e = desired margin of error
N = population size

In this estimation, the significance level is taken as 95% with a margin of error of 2.8 %. Such a sample size provides a base for meaningful comparison to undertaking statistically valid sub stratifications that fall within acceptable confidence levels. Based on the above formula, the baseline sample size was estimated at 1155 rounded to 1200 respondents which were estimated at 1217 after data collection. This sample was distributed among 400 student respondents, 200 teaching staff, 350 TVET graduates' employers, and 250 administrative staff in TVET schools as shown in the table below.

No	Category of respondents	Estimated Sample size(n)
1	TVET Students	400
2	TVET Teaching staffs	200
3	TVET Administrative staffs	250
4	TVET graduates Employers	350
	Total	1200

The findings from data collection in the Ten (10) districts came up with an overall sample size of 1217 distributed in the selected districts as follows:

Figure 1: Sample size by districts



3.3. Data collection methods

Quantitative data was collected through **questionnaires** administration by experienced enumerators under the supervision of Team Leaders and Supervisors.

Focus Group Discussions (FGDs) were used to collect information from various categories of people (selected students, teachers, and parents). Discussions focus on various aspects of governance gaps in TVET, challenges, and mitigative strategies. Efforts were made to better understand the meaning of some figures, which emerged from quantitative data.

Key informants' interviews (KIIs) were conducted with selected people (particularly practitioners and experts from the public, private, and CSOs in the area of education and more specifically in TVET, to get their perspectives on the status of TVET in Rwanda.

Desk review consisted of collecting secondary data on the existing literature in line with TVET both nationally, regionally, and internationally.

3.4. Data processing and analysis

Quantitative data was organized, cleaned, and coded, and entered into the SPSS for analysis into descriptive statistics while qualitative data was transcribed as per the tools, grouped into

themes, categorized, and analyzed using content value analysis. During data collection, quantitative data captured in the tablets by enumerators under the supervision of their respective team leaders were being submitted on daily basis to the data analyst. The data analyst then generated statistical outcomes based on the tabulation plan.

3.5. Quality assurance measures

Conducting such a study necessitated undertaking a set of measures to ensure the quality of data. For this purpose, in addition to ensuring effective coordination of the work and more specifically data collection, the following measures were undertaken:

- The use of a participatory approach in developing research instruments
- The research protocol and instruments were approved by the National Institute of Statistics of Rwanda.
- A training of enumerators and team leaders was organized to ensure a reasonable understanding of the study objectives, methodology, and tools.
- Continuous field meetings between the consultants, the enumerators, and supervisors were organized to identify arising issues while collecting data and to develop appropriate solutions.
- Anonymous questionnaire was administered as a way of encouraging free and open expression by respondents.
- Supervision and overall coordination of data collection
- Tablets were used to collect data and more particularly to minimize data collection and entry errors.

3.6. Ethical considerations

Our search for information does not violate ethical values, including the responsibility to avoid harming or embarrassing respondents and to respect their privacy. For this reason, a series of procedures to comply with ethical guidelines need to be followed during the entire study process.

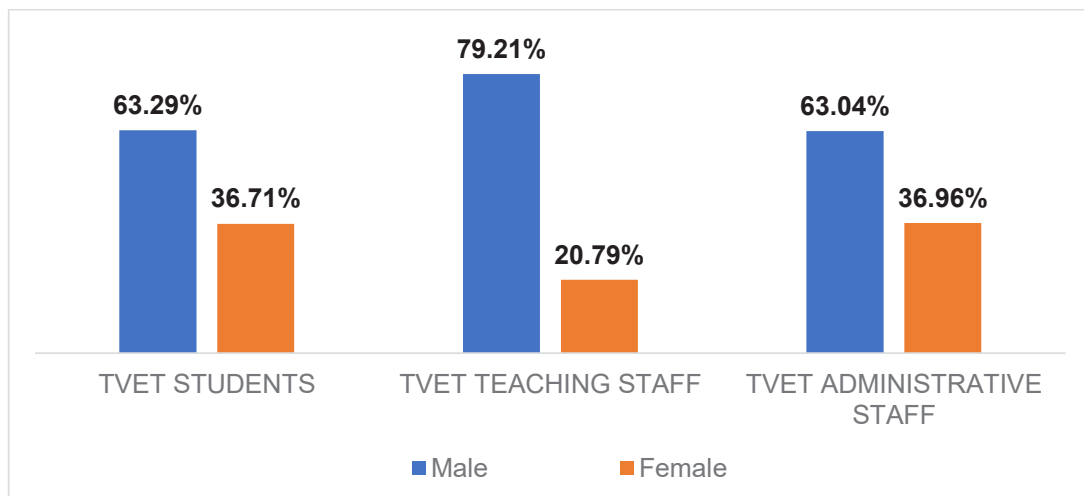
- ✓ Informed consent, after having received and understood all the research-related information, the respondent will voluntarily provide his or her willingness to participate in this study
- ✓ Beneficence- Do not harm, the purpose of research is to discover new information that would be helpful to society
- ✓ With respect for anonymity and confidentiality, the researcher will know the identity of a research subject but takes steps to protect that identity from being discovered by others and ensure that identity of individual respondents is not known to researchers.
- ✓ Respect for privacy, not to share respondents' detail with someone else.

4. Presentation of the findings

4.1. Demographics

The survey findings indicate that there is a remarkable gender gap in TVET schools. As revealed by the figure below, males are extremely more represented in all the four categories of respondents interviewed in the 40 TVET Schools.

Figure 2: Gender of respondents



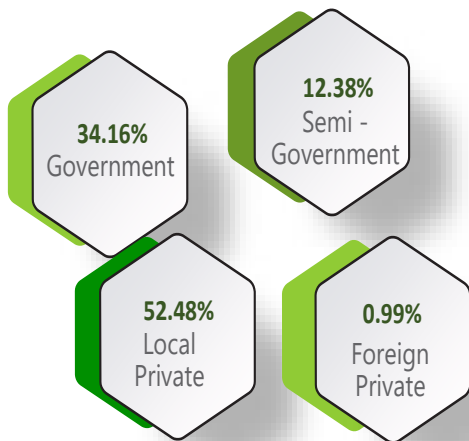
Findings show that among the students who participated in this study, 63.29% were male with 36.71% female. Similarly, males TVET teaching staff represented 79.21% as opposed to 20.79% of females. The same is applied to TVET administrative staff with 63.04% of males and 36.96% of females. The Government of Rwanda is well known to promote gender equality in most of the sectors of socio-economic activities in the country. However, there is still a sort of stereotype in the education sector, whereby people say some courses are dedicated for boys only and sometimes boys ignore to join some courses which they say are dedicated for girls. This phenomenon may also be true with regard to females who should need to make their carrier in TVET.

The survey findings indicate that respondents were mainly selected from TVET secondary schools (73.67%) than in the TVET related Universities (26.33%). This is in accordance with the existing distribution of TVET in as far as Secondary and University streams are concerned (see <https://www.hec.gov.rw>).

Figure 3: Category of TVET schools participated in the survey



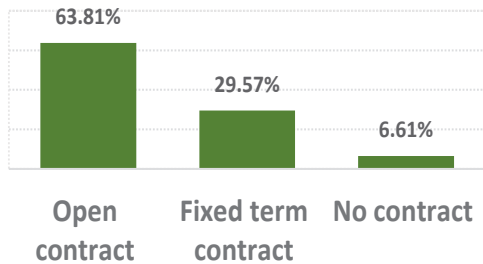
Figure 4: Ownership of schools



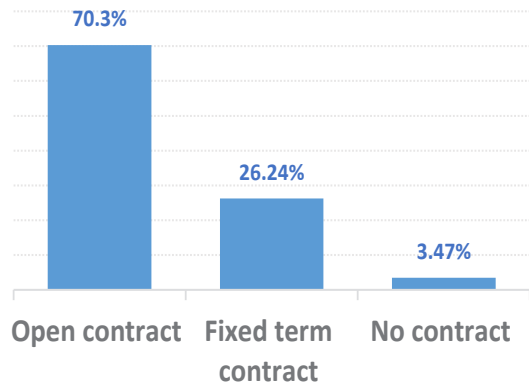
In terms of ownership of the institutions used in the survey, 57.59% are local private schools, 28.4% are public schools, 10.51% are semi-government schools and only 3.5% are foreign private schools. This is a positive development, especially since the private sector and foreigners, not only the government, are investing in Rwandan TVET schools.

Figure 5: Employment status of Teachers and administrative staff

TVET administrative staff



TVET teaching staff



As evidenced by the findings, it is clear that some steps have been taken to comply with the labor laws in TVET schools, especially with regard to the provision of employment contracts to all employees. However, there are still some employees who do not have a contract of employment. For example, 3.47% for TVET teaching staff and 6.61% on the side of TVET administrative staff claimed to work without a contract.

Figure 6: Business experience of employers

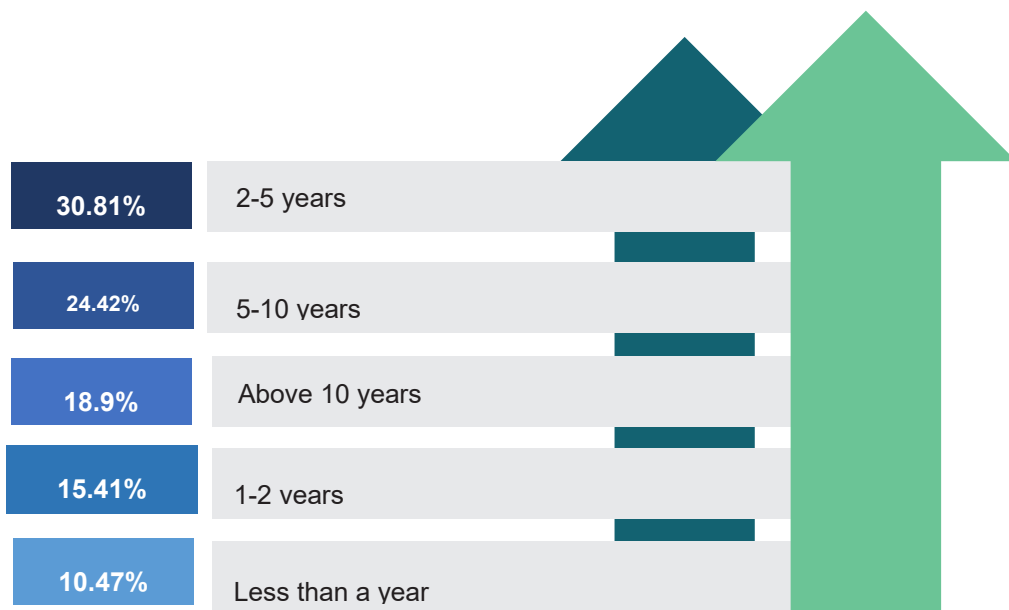
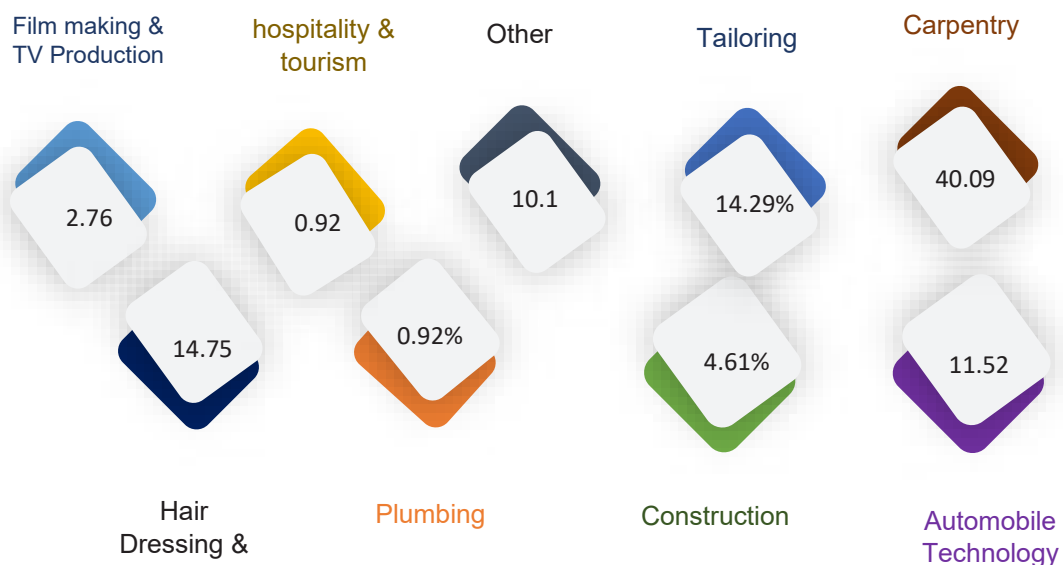


Figure 7: Domains of business



TVET graduates’ employers who participated in this study affirm that their operation sectors include, carpentry (40.09%), Tailoring (14.29%), Hair Dressing and beauty (14.75%), Automobile Technology (11.52%), Construction (4.61%), Film making and TV Production (2.76%), Plumbing (0.92%) and hospitality and tourism (0.92%). About how long they have been in business, 30.81% of respondents believe they have been in business for between two and five years, while 24.42% of respondents say they have been in business for between five and ten years. On the other hand, 18.9% of respondents say they have been in business for more than ten years, 15.41% say they have been in business for between one and two years, while 10.47% say they have been in business for less than a year.

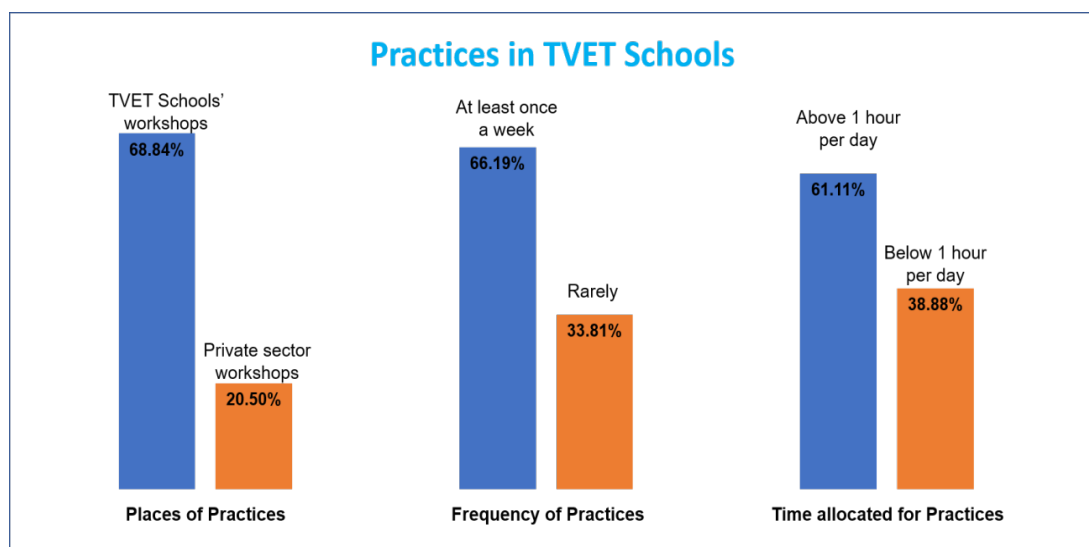
4.2. Performance of TVET vis –a- vis their mandate

4.2.1. Students' perspectives on the performance of TVET schools

- **Workshops practices in TVET schools**

According to WDA directives, (MINEDUC, 2015) TVET schools are required to put more effort into practices to ensure that students have sufficient hands-on skills. This is also consistent with the ILO's recommendations which call for TVET schools to devote more time and effort to practices (ILO, 2015). Moreover, workshop practices are very instrumental for students in TVET schools as ways to improve the quality of education (OECD, 2009). The figure below shows the extent to which TVET schools use practical learning to ensure TVET graduates receive the required quality education.

Figure 8: Students' experience on workshops practices in TVET schools



It emerges from the findings that the majority of students in TVET schools receive practical teachings at their school (69%), at least once a week (66.2%) and that practices last for above one hour (61.1%). This is a good step forward, for some to get enough time of practice, availing workshops for practices and arranging practices regularly but obviously, there is still a lot of effort needed to put into practices. For instance, some respondents revealed that they do not get enough time for practice (38.9%). While a significant proportion of respondents claimed that they rarely get practice in their schools (33.8%). This is challenging as the time and frequency of practical teaching in TVET are instrumental to cope with the existing gap in terms of hands-on

skills in TVET schools in Rwanda. According to the Rwanda Polytechnic Vice-Chancellor interviewed in this study, the budget constraint remains the main obstacle for TVET schools to obtain enough equipment that allows for more practices in classes and workshops. In the word of the Vice-chancellor, it was urged as follows:

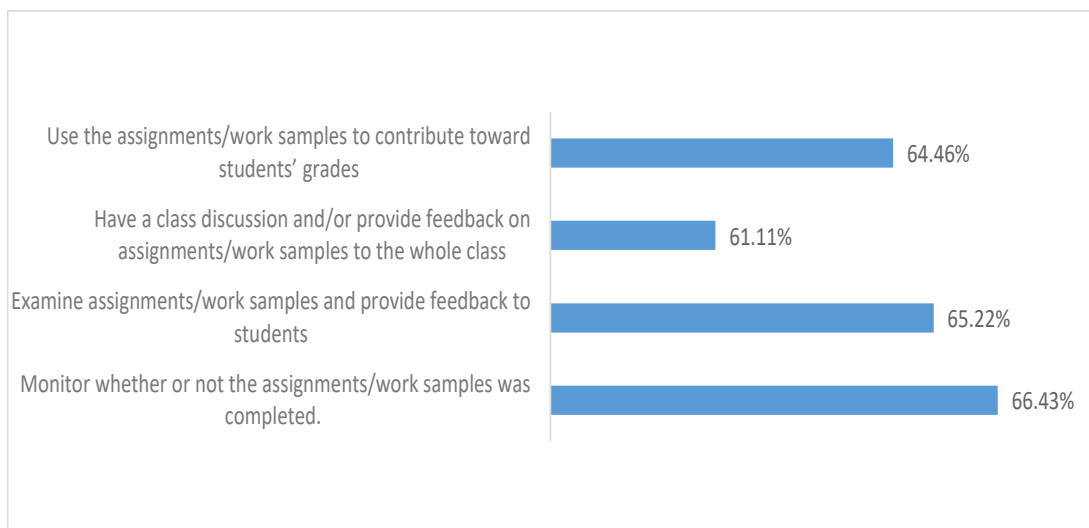
“In order for vocational school programs to be able to produce enough in the industry, it requires adequate equipment and sufficient practice facilities. Yet our budget does not allow us to obtain enough equipment, because we get between 1.5 and 2 billion, about 10% of what we wanted, especially as it relates to national resources. We suggested that a TVET fund be established to address the issue of a limited budget. In order for TVETs to be more effective, students must spend at least half of their program duration having teaching practices in workplaces and the rest of the time they study in classes. But we face significant challenges matching those students with professional institutions that would host them. To address the issue, we proposed the establishment of a large independent company with a variety of professions that will host our students. The center would be able to employ a significant number of students in various fields and teachers as their supervisors. We have presented the concept to the appropriate authorities, and if they approve, it will be one of the solutions to overcome this challenge”.

As result, more practical work and time allocated to it can be arranged as much as possible to ensure that practices are given enough time so that graduates in TVET schools may be more productive at the workplace. As revealed in various studies and reports (see, MINEDUC, 2008, OECD, 2016b), it is expected that courses taught at TVET schools should be relevant to practical skills. Particularly, this is instrumental as one of these institutions' missions is to equip students with more hands-on skills that fully satisfy industrial needs (WDA, 2019). Therefore, this study highlights some gaps, in terms of providing enough workshops for practices and dedicating sufficient time for practices.

- **Students’ opinion on the importance that teachers place on work samples/ assignments**

To attain accurate information about student performance, teachers must apply sound classroom assessment practices/ assignments/ work samples/tests (UNESCO, 2019). Teachers should provide effective feedback. Feedback represents the information that the teacher provides to the student in order to help the student reach the learning goal (ILO, 2019). The figure below presents students’ opinions on how teachers value students' assignments/ work samples in TVET schools.

Figure 9: The importance that teachers place on student’s work samples/ assignments (% of agreeance)

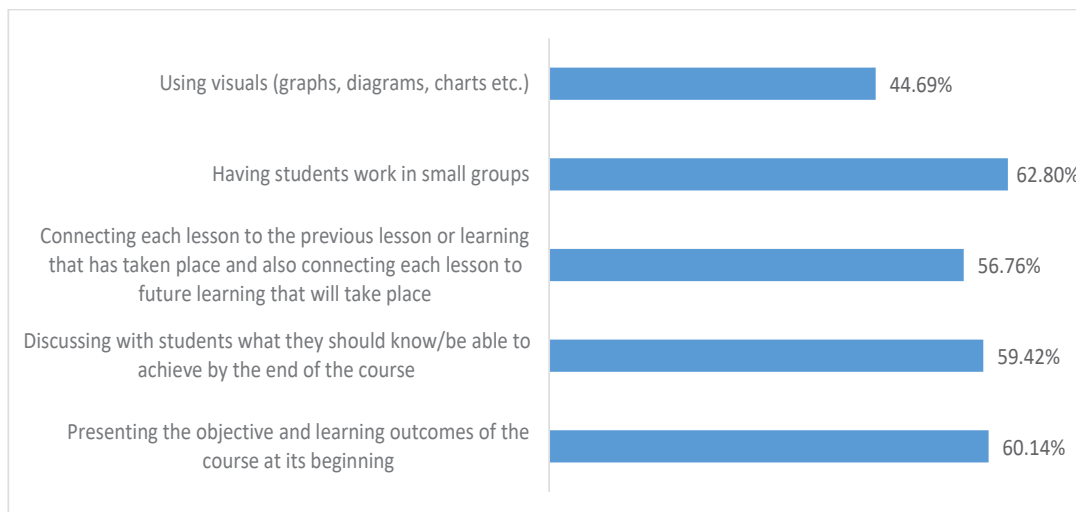


Based on these figures above, it is clear that teachers in TVET place remarkable importance on student’s work samples/ assignments as evidenced by more than 60% of students in different aspects of managing student’s assignments. However, another significant proportion of students (around 30%) believe that having a class discussion and/or providing feedback on assignments samples to the whole class is not common practice in TVET schools in Rwanda. This constitutes a learning gap that can affect the intended performance in the TVET schools in the country. According to ILO’s recommendation, Feedback on assignments is indispensable for the student to reach the learning goal.

- **The teaching method in TVET schools**

The competitive nature of the education system has made matters worse in developing countries (OECD, 2016a). The instructors in many TVET institutions are equipped with traditional teaching (ILO, 2015). The method is teacher-centered and does not help develop important skills such as communication skills, interpersonal skills, persuasive skills, creativity skills, problem-solving skills, and all other vital skills (UNESCO, 2019). Hence, it is in this context that this survey sought to determine whether teaching methods are appropriate in TVET schools. This survey used the following metrics:

Figure 10: Teaching method in TVET sector (% of agreeance on the method selected)



As evidenced by the findings, the majority of students (around 60%) indicated that they are often informed about the study's objectives and learning outcomes before it began and that they have students work in small groups. However, some aspects of the teaching method were not given too much importance and were scored below 60%. These include for example using visualization teaching methods (graph, diagrams, charts, etc.), discussion with students on what they should know/be able to achieve at the end of the course., linking the lessons they were teaching with the lessons learned, and other planned subjects. Visual aids may provide the chance to learn visually and are more effective and easy for human beings (Shabiralyani et al., 2015). Working in small groups, as multiple studies have shown, allows students to exercise higher-order thinking skills (Itohan Oviawe, 2017; Wiederhold & Riva, 2013), which is essential for TVET students. Students who do small group work generally learn more of the material and retain their knowledge longer than students who don't (Okwelle & Ayonmike, 2014;eJEP, 2019).

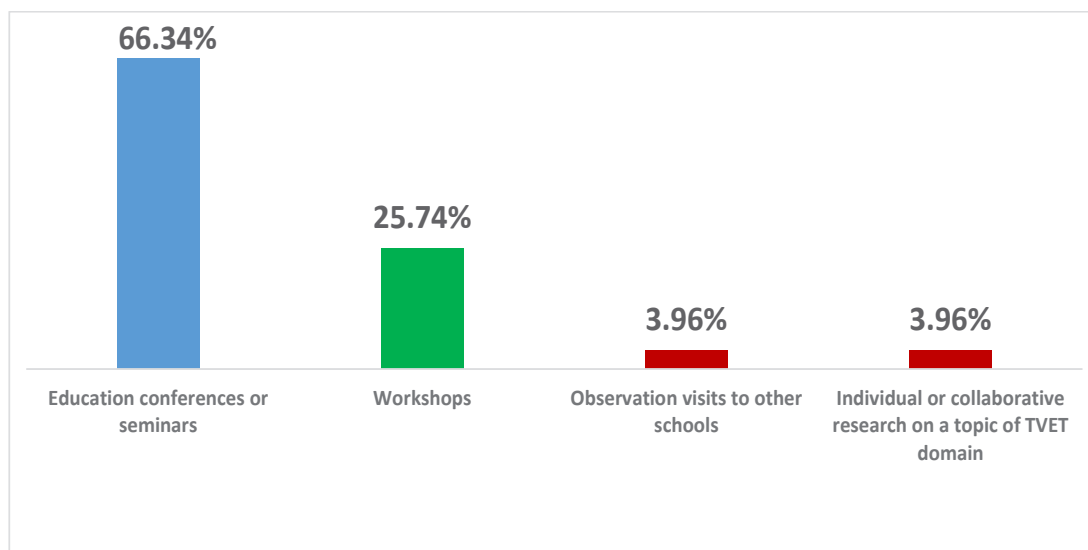
According to various studies around the world, see for example (DEMISSIE, 2017;British Council, 2018;Ngure, 2013) it is impossible for students to attain the course's objectives as long as they do not fully comprehend the degree of knowledge they should have after completing the course. This can also make it difficult for graduates to understand what they are capable of doing in the job market. Such gaps are becoming more evident in TVET schools, and if not properly addressed, they will continue to jeopardize the productivity of graduates in TVET schools in Rwanda.

- **Teachers' perspectives on the performance of TVET schools**

Teachers' professional development activities

In many countries, the role and functioning of schools are changing and so is what is expected of teachers. Teachers are asked to teach in increasingly multicultural classrooms; to place greater emphasis on integrating students with special learning needs in their classrooms; to make more effective use of information and communication technologies for teaching; to engage more in planning within evaluative and accountability frameworks, and to do more to involve parents in schools. (UNESCO, 2019).

Figure 11: Participation in Professional development activities (During the last Three years)



This survey shows that significant progress has been made in terms of improving teacher knowledge and development in TVET schools where 66.34% of teachers said they participated in conferences or seminars in the last three years though some other aspects of teachers' professional development activities seem to be overlooked. These include observation visits to other TVET schools and individual or collaborative research on a topic of the TVET domain. Exchange visits among TVET teachers constitute an important determinant of TVET quality. The findings from FGDs with teachers from private TVET schools also confirmed that they are less involved in professional development activities as explained in the following quote:

“There is a big gap in capacity building of teachers in both public and private schools. It is worse in private schools due to poor/delayed communications from public institutions to Private Schools, sometimes private teachers miss training opportunities just due to poor and delayed communication. This is because some announcements are communicated

to public school's teachers and delay reaching those from private TVET schools. They come to know more when the opportunity is no longer available.

Another participant of FGDs with private TVET teachers added

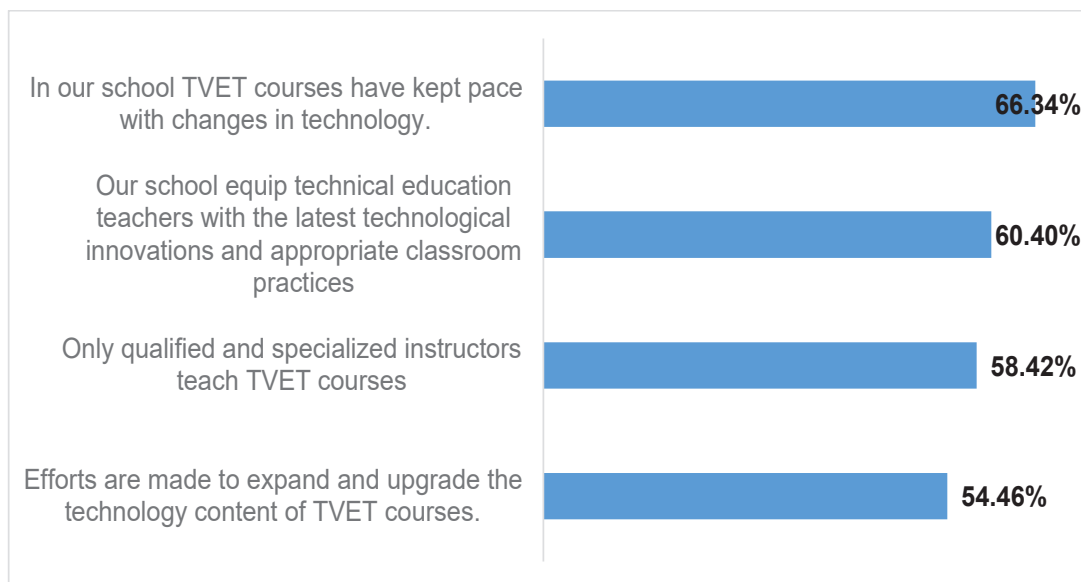
"I missed so much training just because I'm employed in the private university. While teachers in the public schools were eligible, I was told several times that my employer was not eligible to get those training. But I ask myself if we are all educating Rwandans, why shouldn't we all be facilitated?"

The lack of opportunities for teachers to develop their carrier through training/workshops was highlighted by Wiederhold & Riva, (2013) who indicated that higher education-employment linkage in countries' largest TVET programme is likely correlated with improved youth labor market outcomes for the country overall. Additionally, linking education and employment features through visits is also prominently in UNESCO's recommendations on TVET (UNESCO, 2016).

- **Teachers' perception on the technological development of TVET schools**

Technological innovations are having a significant impact on educational systems at all levels. Online courses, teaching aids, educational software, social networking tools, and other emerging technologies are disrupting the traditional classroom environment (OECD, 2009). Hence, as evidenced in various studies, most Technical Teachers have poor training backgrounds owing to the problems encountered during the training process. Most technical teachers have never since their practice gone for a re-training programme in order to keep abreast with the ever-dynamic technological innovation associated with the ever-changing needs of society (UNESCO, 2016).

Figure 12: Teachers' perception on the use of technology in TVET schools (% of agreeance)



In Rwanda, as revealed in the survey findings, appropriate efforts have been made to promote technology-based education in TVET schools. This is illustrated by an important proportion of teacher's respondents who confirmed the existence of initiatives in their schools that support the use of technology in teaching. According to the survey findings, 60.4% of respondents agreed that their school equip technical education teachers with the latest technological innovations and appropriate classroom practices. In the same vein, 66.34% agreed that in their school TVET courses have kept pace with changes in technology. On the other hand, 54.46% of respondents testified that effort was made to expand and upgrade the technology content of TVET courses in their schools. Concerning the teaching capability of TVET teachers, 58.42% of respondents agreed that only qualified and specialized instructors teach TVET courses in their schools.

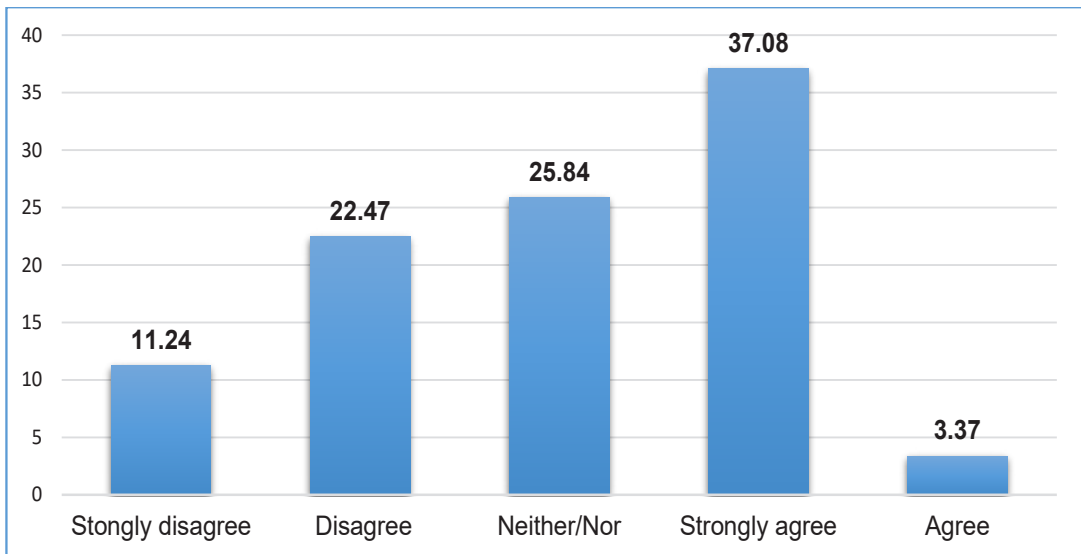
Teachers can leverage technology to achieve new levels of productivity, implement useful digital tools to expand learning opportunities for students, and increase student support and engagement. It also enables teachers to improve their instruction methods and personalize learning (OECD, 2016a). Technology allows students to help each other and work together to better understand the material. In that sense, they can sometimes serve as the (supervised) teachers, and learning through instruction is known to be highly effective for mastering a topic and solving problem (UNESCO, 2012). As various studies have shown the benefits of employing technology in teaching, it is clear that vocational schools in Rwanda have made substantial efforts and will, without a doubt promote tangible productivity in these schools. Although, despite the efforts made in the use of technology, the survey revealed isolated flaws, (Such as upgrading TVET courses' content with technology), indicating the need to devote the required efforts to make TVET schools more productive.

4.3. The quality of programs, the capacity of TVET schools, and the status of the TVET management aspect

- **Teachers' perception on the TVET Curriculum**

TVET programs have a particular capacity to contribute to sustainable developments. The need for a highly skilled and productive workforce is shaping economies all over the world. To increase their chances for employability, young people and adults need skills that are flexible and relevant to the demands of today's societies (UNESCO, 2016). By equipping individuals with knowledge, skills, and competencies linked to labor market demands, TVET systems are recognized as a crucial instrument for increasing employability, better job prospects and potentially improving social inclusion (ILO, 2020). The figure below illustrates the views of respondent's teachers on whether the TVET curriculum meets the required needs for the existing labor market.

Figure 13: Teachers' perception (%) on TVET Curriculum that meets the needs for the labor market



Despite the importance of matching curriculum to market demands in boosting productivity in TVET schools, the findings show that there is still a gap in TVET schools of Rwanda, particularly because many respondents have questioned the linkage between curriculum and market needs in their schools. According to the data in the figure above, only 40.4% of teachers believe there is still a connection between curriculum and market demands. The issue of the TVET curriculum

failing to meet the needs of the labor market was also evoked during the interview held with an official from the Curriculum department in the Rwanda TVET Board (RTB) who testified:

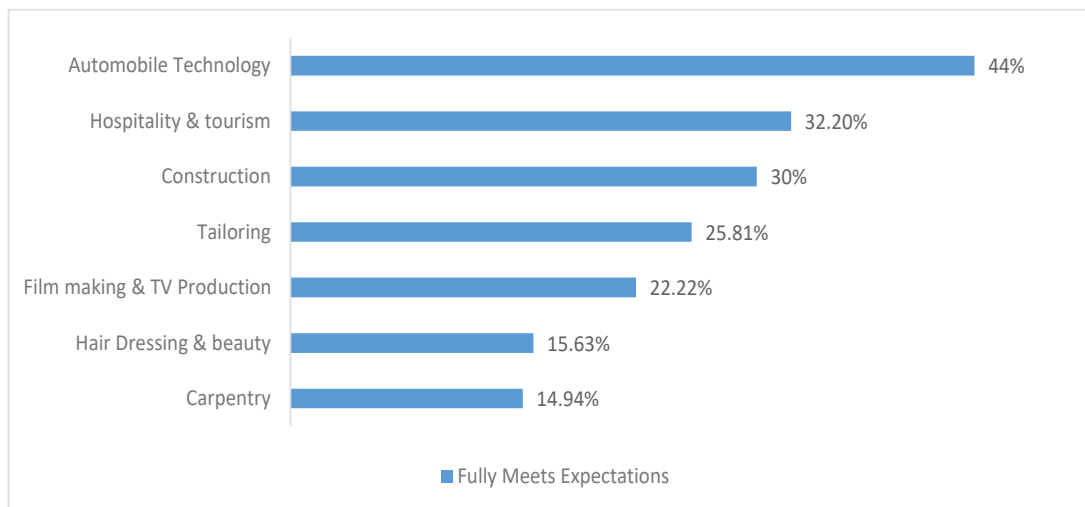
“The new curriculum (competence-based curriculum) is old and does not reflect the current technology. Those who say that the curriculum has failed to meet the needs of the labor market are not mistaken. But I cannot say it failed at 100%. In the past, we used the knowledge-based approach but, since 2017, we are implementing a competence-based curriculum. The issue is that the new curriculum was developed in 2013 and it does not meet the present needs. Generally, the curriculum should be updated at least after five years but as you may know, the current one which is in use has approximately nine years. The root cause of this is the lack of budget”.

According to World Bank, the status of TVET depends on its ability to produce qualified young people who will be immediately operational in the workplace (World Bank, 2017). However, it is difficult for TVET schools to meet their goals when students' knowledge does not match the abilities required in the market. As a result, in order for TVET schools to be successful, their curricula must be aligned with the needs of the labor market.

- **Employer’s perception on the quality of TVET programs offered vis-à-vis the market needs**

Technical skills are important for any business for a variety of reasons. No matter what sector you work in, the tasks your employees perform every day rely on different tools and processes (OECD, 2016a). Giving employees the skills they need, leads to happier employees, meaning better productivity. Technical skills can help employees work more efficiently, boost their confidence, and make them a more valuable candidates for employers. In addition, employees with technical skills are often better at multitasking in a challenging and complex role (ILO, 2015). Hence, this survey sought to examine employer's opinion on whether TVET programs meet their expectations. This is shown in the figure below.

Figure 14: Employers' opinion on whether TVET programs meet their expectations (% of programs that fully meet expectation)



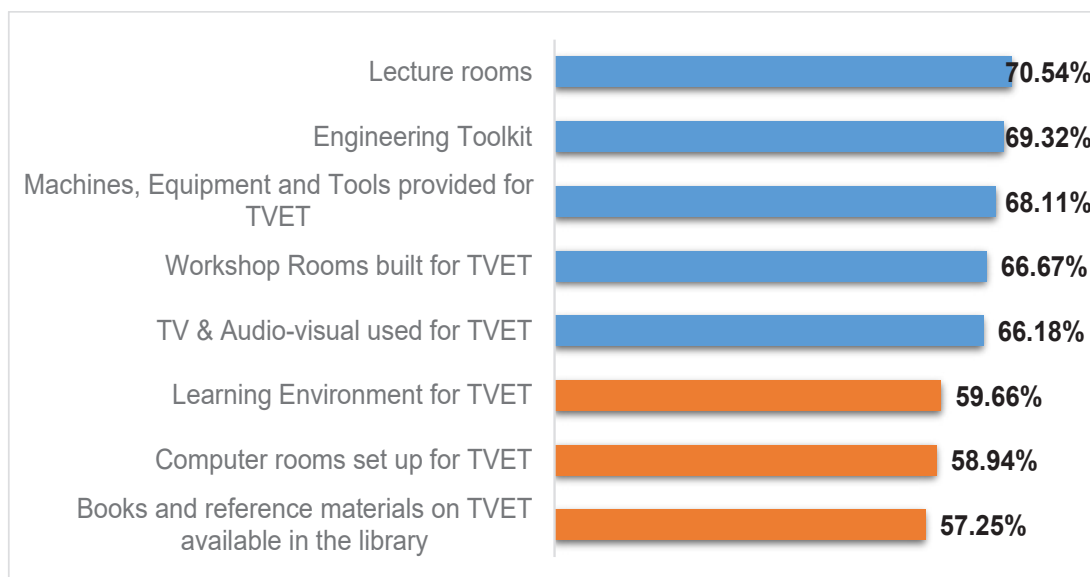
This study reveals a number of TVET programs that need to be more developed as testified by a large majority of TVET graduate employers. According to around 70% and above of respondents of this category, programs such as Film making and TV production, Construction, and Hair dressing and beauty need more development compared to other programs offered in TVET schools in Rwanda, implying that performance gaps persist in TVET schools in Rwanda, particularly with linking TVET graduates skills learned in class with industrial demands, where this gap is evident in almost all the domains identified in this survey. As a result, the authorities must increase their efforts to improve teaching in TVET schools, particularly in improving students' capacity to apply technical skills in various vocational domains. According to data, some fields, such as filmmaking and TV production, construction, hair dressing, and beauty have larger gaps than others which is critical to expanding efforts to integrate TVET graduates' school-based knowledge with the skills required in the workplace.

- **Student's perception on TVET capacity in terms of school equipment**

As it is generally known, vocational schools require equipment because it enables students to learn how to make the greatest use of the instruments they will use in their careers by the time they graduate (OECD, 2016a). In this perspective, TVET students were interviewed in the survey,

in order to determine whether the equipment used in TVET schools is available and adequate as appropriate.

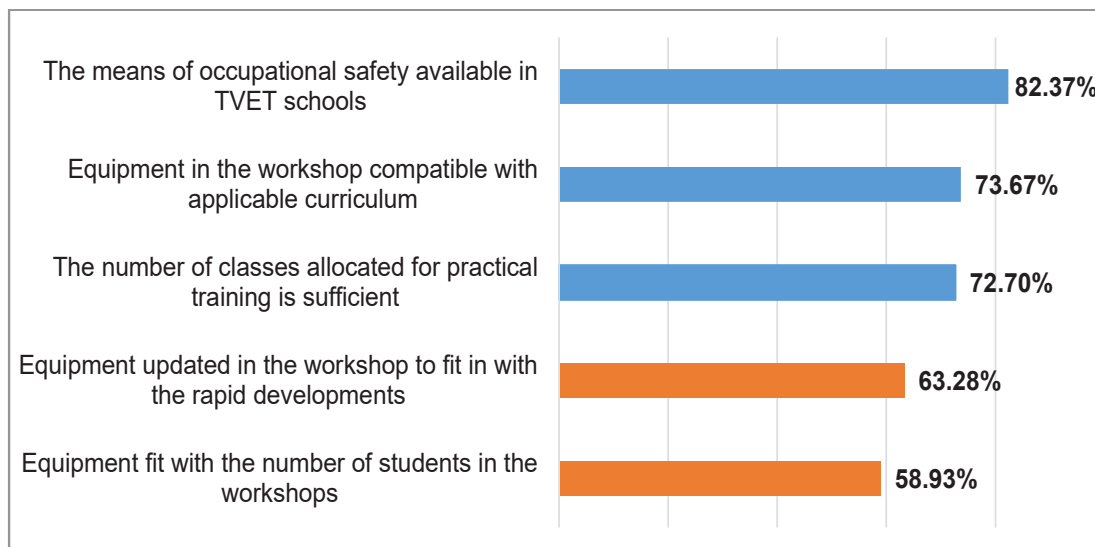
Figure 15: Student's agreeance (%) on TVET equipment availability



According to the findings, the majority of students show that schools' equipment is available in TVET to be used in capacity building for students. In this regard, 70% of students agreed that lecture rooms are available, 69% of them confirmed the availability of the Engineering tool kit. The same applies to the availability of a learning environment for TVET and workshop rooms built for TVET which are meant to accommodate workshop users accounting for 68% and 67% of respondents respectively. However, some equipment tools received the least score among others (below 60%) such as TV & Audio-visual used for TVET (54%), books and reference materials on TVET available in the library (57%), and machines, equipment, and tools provided for TVET (59%). The fact that TVET students are expected to use workshops rooms and tools as often as possible, to some extent, the issue of the availability of equipment remains challenging and will have a detrimental impact on their learning and they may even lack the necessary skills to cope with the job market.

Regarding whether or not the equipment used in TVET schools is up-to-date in order to keep up with the latest technologies, a substantial percentage of respondents believe workshop equipment is sufficient and compatible with modern technology as shown in the figure below.

Figure 16: Students' agreeance (%) on whether school equipment is sufficient and compatible with modern technology



Once again, findings show that a large majority of students agreed that the equipment used in the workshops is sufficient and relevant to modern development, meaning that good progress has been made in providing updated workshop equipment to TVET students. In terms of occupational safety tools, a very high proportion of students (82.37%) stated that such tools are readily sufficient and compatible with modern development. Additionally, considerable proportions of students also showed that the number of practical training classes allotted was sufficient in TVET schools and that equipment in the workshop is compatible with the existing curriculum as testified by respectively 72.7% and 73.67% of respondents.

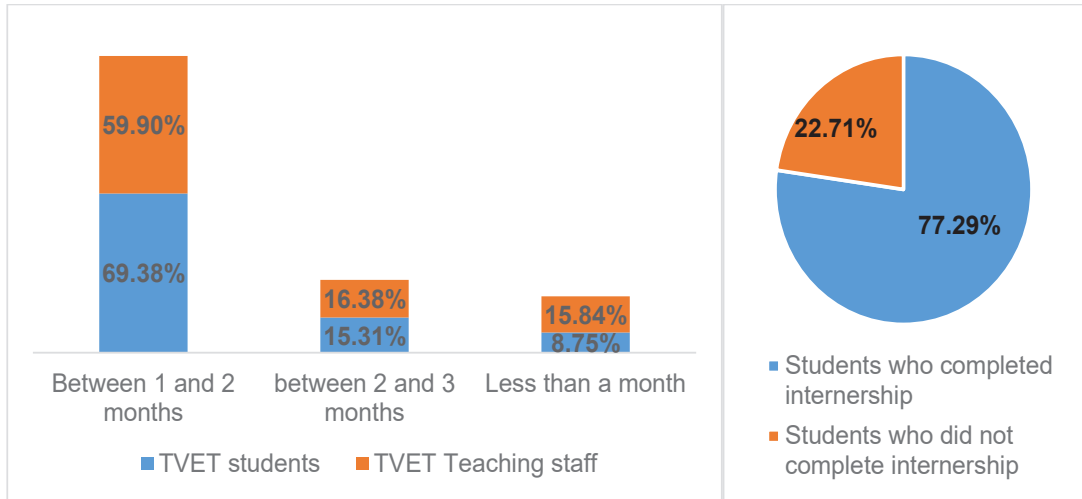
Though efforts appear to have been made to increase the number of classes at TVET schools dedicated to practical training, this study highlights some gaps in as far as the equipment that fit with the number of students in the workshops (with only 58.9% who said that it is sufficient). This is in stark contrast to UNESCO and MINEDUC guidelines (MINEDUC, 2008), where they say practices should be prioritized in TVET schools. TVET schools should put more effort into teaching practices so that graduates have the right skills that meet market demands (UNESCO, 2019). Hence, additional efforts should be made to increase the productivity of TVET schools in Rwanda by availing sufficient equipment which fits the number of students in the workshops.

- **Internship practices in TVET schools**

Internships are beneficial because they help develop students' professional aptitude, strengthen personal character, and provide a greater door to opportunity. By investing in internships, students are equipped with the broadest spectrum of opportunities when seeking and applying

for a job after college. Hence, it is with this context that this survey sought to examine if internships are conducted properly in TVET schools in Rwanda.

Figure 17: Students' internship completion and duration



With regard to internship practices in TVET schools, a large number of respondents completed an internship, with 77.29% saying they did it while another significant proportion of students (22.71%) said they did not complete their internship. It emerged from the FGDs conducted with some TVET graduates that for them it is very difficult to get internships as revealed in the following testimony:

“Due to Covid-19, employers and managers tell us (students) that they have a number of interns they should not exceed as per Covid-19 prevention measures and government restrictions. In some cases, we are not assisted during our internships, but instead, we are given other irrelevant tasks. Sometimes we, students are given tasks that are irrelevant to our fields of training. For instance, you may go in internship willing to learn more on transmission but you find yourself being tasked to file documents of the company or be a transporter of boxes”.

Another participant in the FGD held in Kigali claimed that:

“The industry is very small compared to the number of TVET students who need internships. Sincerely, the number of TVET schools does not match with existing companies in the industry. The industry is very small while TVET students have drastically increased. It is, therefore, difficult to get internships and materials for all those students. For instance, when we request 10 slots of internship in the Engineer Brigade, they may only accept two. There is a need for the harmonization of the partnership between the industry and the

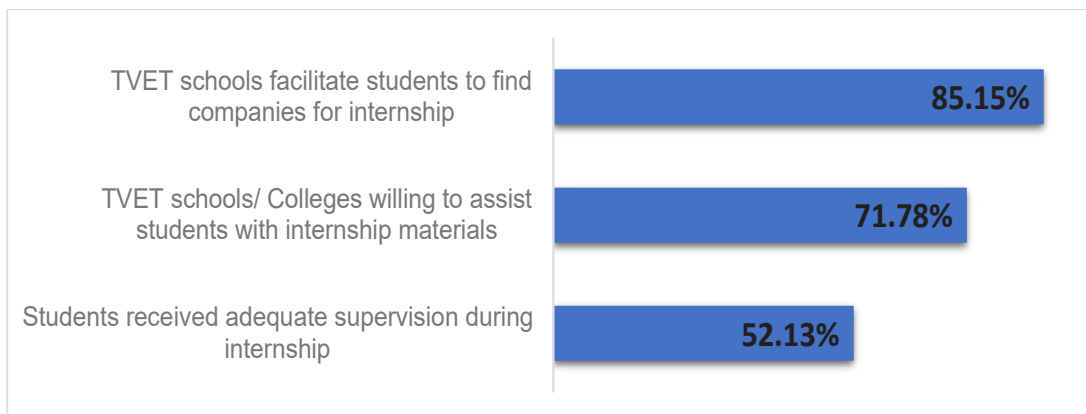
TVET institutions. The private sector does not feel and understand its role and responsibility to support the quality education in TVET in Rwanda, while these young people are their employees in the future. Sometimes, while in internships, students are given tasks that are irrelevant to their domains provided that they are kept busy. This has a very negative effect on practices that they should be doing”.

As indicated in various studies, see for example, (Shabiralyani et al., 2015), TVET internships should last at least two to three months. ILO, (2015) added that the average internship is 10-14 weeks long. In this regard, as the findings show, there is still a gap in the duration of the internship in TVET schools; particularly because they do not get enough time in the internship, which, of course, has an impact on the skills they gain from that crucial academic activity. This is also in line with the findings of the teachers, where 59.9% of respondents agreed that the internship lasts between one and two months. While some respondents (15.84% /teachers) and (8.75%/students) have demonstrated that internships can be even completed in less than a month. This is a worrying issue if there are no specific standards for the duration of the internship in TVET schools; it reveals a potential gap in TVET governance, which could have an impact on the schools' performance.

- **Internship supervision by teachers**

Through the internship, students can learn how to apply the knowledge acquired during an internship to future workplaces. In addition to this, it is an excellent learning curve for young graduates and students while meeting new people and making connections in the professional world. Internship supervision ensures that needs and expectations are discussed early on in the process to prevent misunderstandings (UNESCO, 2012). Ensure the internship is a meaningful learning experience for the student. In addition, the intern and supervisor relationship is a critical part of whether or not the intern views the internship opportunity as successful or not (OECD, 2016a). Hence, supervision ensures the internship is a meaningful learning experience for the students and Develops learning objectives and goals with the students. Thus, this survey sought to determine if internship supervision is conducted properly in TVET schools.

Figure 18: Students' opinion on the adequacy of internship supervision



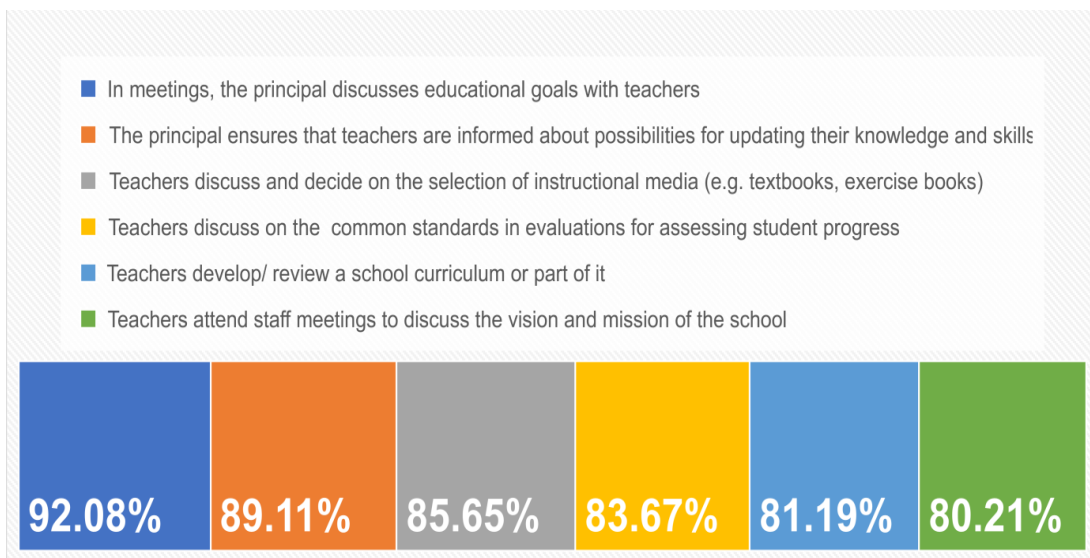
As indicated by the study, there is still a significant gap in terms of adequate supervision during the internship, with only 52.13% of respondents reporting the existence of adequate supervision. In reality, it would be very difficult for the interns to acquire the appropriate knowledge when they don't get the proper supervision while doing the internship. As it ought to be, supervisors are well-known for guiding interns in recognizing what they have not done well and how to remedy it. By contrast, when they do not find adequate supervision, some graduates will complete internships without proper knowledge. This will jeopardize the main goal of the internship which is to improve the graduates' hands-on skills.

Moreover, while 85.15% agreed that students are assisted in their search for internships and that 71.78% of them confirmed to be facilitated with internship materials, it is worth noting that a significant proportion of students (28.22%) were not helped with access to materials while doing internships. It is therefore challenging for students to get materials to be used during the internship in case the school is not capable to assist them in this regard. This limitation will surely affect negatively some TVET students in getting expected knowledge from the internship.

- **Managerial practices in TVET schools**

Decision-making is one of the important processes of school administration. Schools can be successful as long as they fulfill the needs of their insiders (administration, teachers, servants, students, and parents). Teacher Participation plays a huge role in comprehension, adaptation, and efficient application of the decision. Teachers participate in every single school event at the front lines (ILO, 2015). So this study wanted to know if TVET school teachers are involved in different decisions related to the development of their schools.

Figure 19: Teacher's participation in school management (% agreeance)



This study reveals the very high participation of teachers in school management in TVET in Rwanda. This is evidenced by 92.08% of teachers who agreed that the principal discusses educational goals with them in meetings. In the same vein, 89.11% of them said that the principal ensures that teachers are informed about the possibilities for updating their knowledge and skills. A similar proportion of teachers affirmed that they attend staff meetings to discuss the school's vision and mission, participate in the discussion of developing/ reviewing a school curriculum or part of it and take part in the debate and selecting the instructional medium (e.g. textbooks, exercise books), etc. However, qualitative data revealed that teachers are not part of some academic activities such as policy formulation, curriculum development, and so on (see the testimony below).

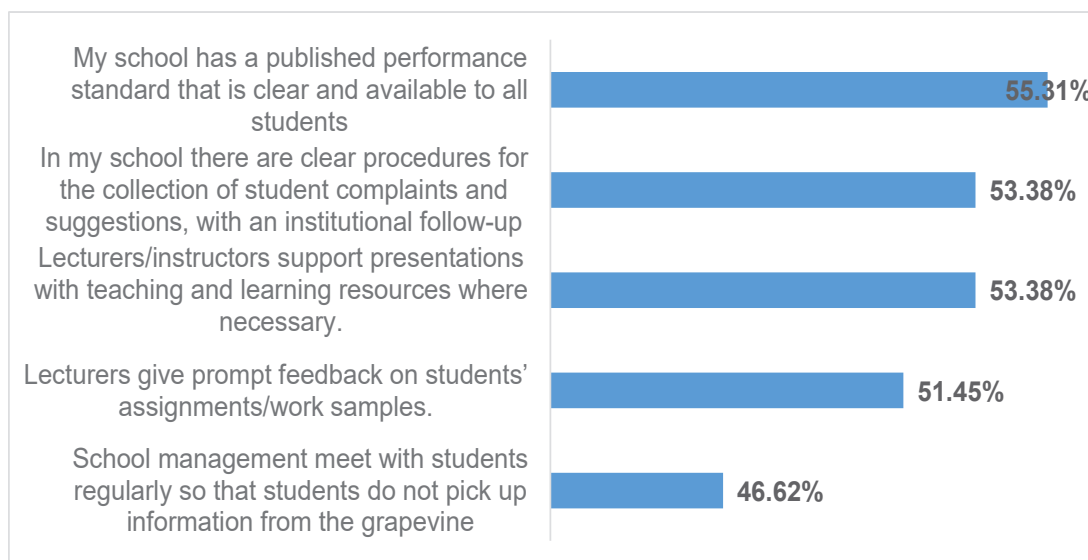
“I, personally, but not as a teacher, participated in the formulation of policy and development of TVET curriculum. However, though there is a clear policy formulated, teachers are not happy with its implementation. Private TVET Schools are not represented in the review and update of the curriculum. Nowadays, the new TVET curriculum is under review but I was surprised that private schools are not represented” Said a teacher in one of the private TVET schools.

According to various reports, participation in school's development and innovative decisions of teachers creates an energetic atmosphere in school and strengthens teamwork. Teachers are the most affected staff through decisions (UNESCO, 2012). The quality of education in TVET schools is bound to suffer when teachers are excluded from decision-making meetings yet are among those who carry them out (frontliners).

- **Students' participation in the management of TVET schools**

Good leadership in schools helps to foster both a positive and motivating culture for the high-quality experience of learners. Through their day-to-day actions, students act professionally and engage in regular self-reflection. They hold themselves accountable and more importantly hold school leaders accountable. Therefore, this survey sought to know the status of students' participation in the management of TVET schools.

Figure 20: Students' participation in the management of TVET schools (% of Agreeance)



The above findings indicate that the level of students participating in the management of TVET schools is moderate as opposed to that of teachers which were scored very high. More than 50% of students testify that the procedures for assessing students' complaints and their suggestions are clear, receive timely feedback on their assignments/work samples, and that the school has a clear performance standard that is available to all students. Notably, another majority of students (around 54%) disagree with the fact that school management meets with students regularly so that students do not pick up information from the grapevine. The lack of regular meetings to share school information with students may impede their participation in decision-making and also undermine their role in holding school leaders accountable.

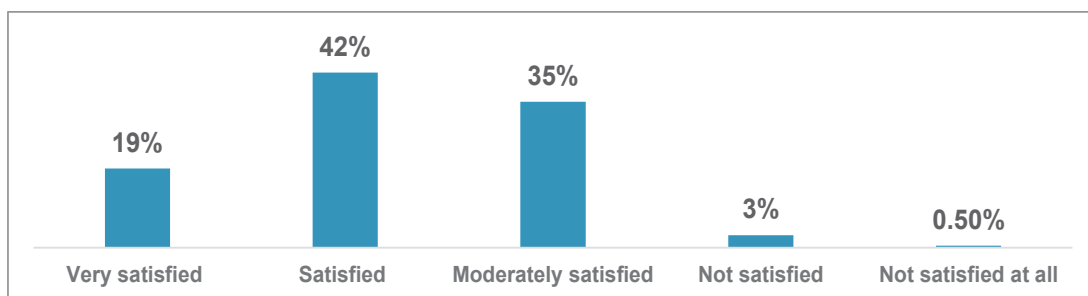
Similar gaps are also observed in other aspects of the school management as mentioned in the figure above such as the performance standard whereby around 45% of students found that performance standards are not available to all of them. Performance Standards are concrete statements of how well students must learn what is set out in the content standards, often called the "be able to do" or "what students should know and be able to do" (Liu & Clayton, 2016). Performance standards isolate and identify skills needed for problem-solving, reasoning, communicating, and making connections with other information. They provide all constituents with the pieces of evidence that students have met the content standards, helping teachers define what level of work is satisfactory (OECD, 2016a). TVET schools should set standards of performance for students and teachers based on national or scientific guidelines, benchmarking against similar organizations, the public's or leaders' expectations, or other methods (ILO, 2019).

4.4. Students' satisfaction with the quality of education provided in TVET

4.4.1. Students' satisfaction with the quality of education in TVET

As revealed in various studies, teaching quality is more highly correlated with student achievement. Besides, Students' satisfaction can be defined as a short-term attitude resulting from an evaluation of students' educational experience, services, and facilities. Student satisfaction influences not only how much a student enjoys their studies, but also how well they do. Various studies found that classroom environment, college facilities, course structure, and method of grading are also factors that affect student satisfaction (Hartono, S.E, 2017). It is in this regard that this study examined student's satisfaction with the quality of teaching in their schools.

Figure 21: Level of student's satisfaction with the quality of teaching in TVET schools

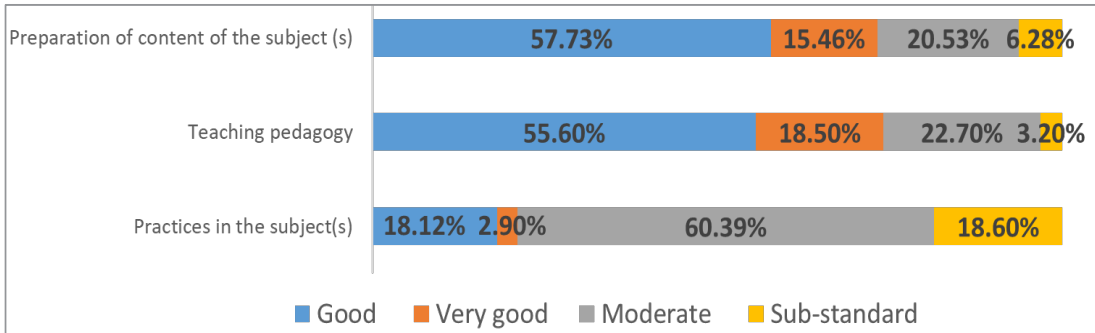


In terms of student satisfaction with the quality of teaching in TVET schools, a high percentage of respondents(61%) stated they were satisfied with the quality of teaching in TVET schools. This marks exciting progress and steps forward taken to improve the quality of TVET education in Rwanda. However, there is a significant percentage of people who are moderately satisfied with the quality of instruction. This fits perfectly with the other findings that have also shown

weaknesses in teaching in TVET schools in Rwanda. Thus, this highlights the need for more efforts in this sector to increase the productivity of TVET schools in Rwanda. As other findings show, there is still a range of limitations that impede the effectiveness of TVET schools in Rwanda, which explains why some students are still dissatisfied with the quality of teaching in their schools. The figure below examines factors that undermine the quality of teaching in TVET schools.

The imperative in recent years about improving student outcomes is also about improving the quality of the teaching workforce. Literature highlights many features that characterize effective teaching, which include extensive pedagogical content knowledge, preparation of the course content and active arrange more practices in the subject (ILO, 2015).

Figure 22: Students' opinion on selected aspects of the quality of teaching in TVET schools



The quality of subject content is perceived to be good as confirmed by 57.73% of students while only 15.46% believe that the courses are very well prepared to meet the industry's needs. In contrast, 6.28% of the total respondents claim that the content of the courses taught is sub-standard, hence inappropriate. In fact, good content preparation is required for effective teaching, with sufficient content and pedagogical knowledge whereby teachers can respond to students productively. Although it appears that there has been a step towards improving the preparation of course content in TVET schools, it is also clear that there is still a slight gap and some effort to be made is essential to increase the productivity of TVET graduates in terms of the preparation of the content of the subject (s).

On the other hand, the findings of the study confirm the quality of teaching pedagogy in TVET schools where 55.6% of respondents believe the pedagogy used in their schools is good, while 18.6% believe it is very good.

Despite the importance of practices in the topics in TVET schools, 18.6% of students claim that the quality of practices provided to in the subjects are sub-standards while the majority of them (around 60%) believe the quality of practices in the subjects to be moderate, meaning fairly satisfactory. The lack of sufficient practical skills in TVET has been evoked by GIZ (2020) indicating that companies complain about unskilled graduates and unsatisfied need for qualified employees in skilled crafts. The report further showed that in TVET schools in Rwanda, skilled crafts school trainer has a University degree at bachelor's level, but no enough practical skills and are not prepared to conduct practical sessions as their practical skills are lacking. Furthermore, the development of a concept for the qualification and certification of in-company trainers and formalized apprenticeship system have not yet been started.

While there has been some improvement in the quality of TVET education in general, we also acknowledge existing shortcomings that should be addressed in order to improve this situation. In order for TVET schools to achieve their goal of equipping students with practical skills, efforts must be made as frequently as possible to guarantee that graduates have sufficient knowledge packages particularly practical skills.

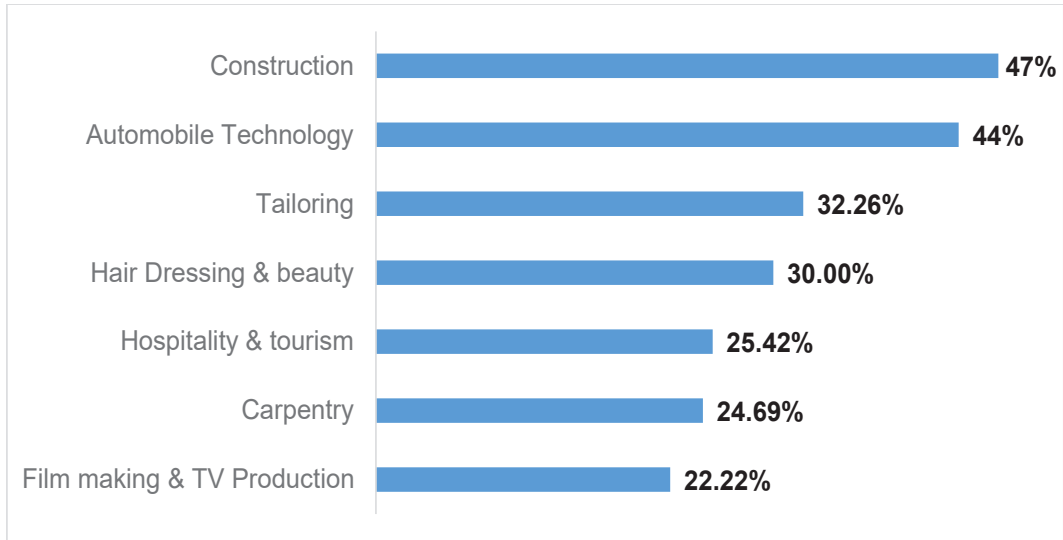
4.5. Satisfaction of Employers of TVET graduates with quality of education

Employers' feedback on the performance of TVET graduates is an important piece of information that TVET schools must consider to determine the relevance and responsiveness of their curriculum, programs, and services. The section below aims to determine the satisfaction of employers with the performance of TVET graduates in Rwanda.

- **TVET graduates' ability to work autonomously**

Working independently is the ability to work self-sufficiently on assigned tasks. The employee might receive direction on projects from a supervisor or manager, but they can then trust him/her to accomplish tasks with little to no supervision. They also can work on projects of their choice separately from a team (Gagne, 2011). Within this respect, this survey sought to determine if TVET graduates can work autonomously.

Figure 23: Employers' satisfaction on TVET graduates' ability to work autonomously (Net satisfaction)

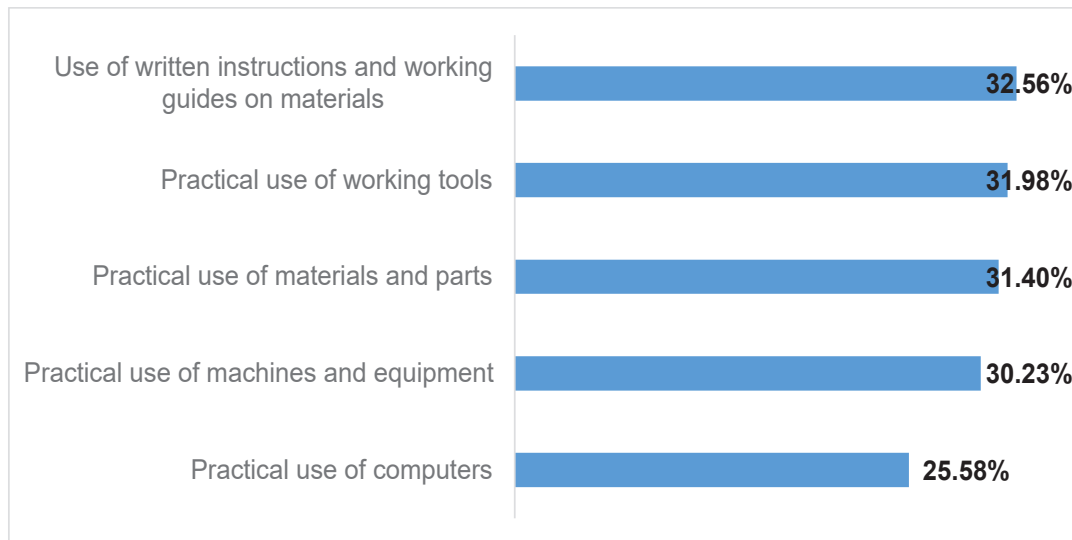


From the study findings, TVET graduates' ability to work autonomously is still limited in all the TVET domains as evidenced by a relatively low level of employers' satisfaction in this matter. This implies that graduates of TVET schools in Rwanda still have a gap in their knowledge when it comes to matching what they learned in school with the skills needed in the workplace as they still need a supervisor to be able to handle their job responsibly. TVET in Rwanda still needs to be supported by a comprehensive understanding of labor market needs. This requires that the voice and support of TVET employers are routinely considered when determining the strategy for the sector, when designing curriculum, when determining which courses, in which sectors, and at what levels they support is required. By doing so, TVET schools in Rwanda would accomplish their mission.

- **TVET graduates' knowledge of the use of tools and equipment in the workplace**

Tools and equipment are very essential for day-to-day technical jobs. Some tools are versatile and some of them are specifically used for a specific job. Tools are particularly important in vocational works. Adequate usage of tools and equipment at a workplace significantly increases productivity (OECD, 2016b). Since many different pieces of equipment are built with specific functions in mind, using the wrong ones can create situations that put employees and co-workers at risk (UNESCO, 2019). Therefore, by having the proper tools, they are cutting back on the risks present in the workplace and better ensuring workplace safety. As it turns out in various studies, tools and equipment are often used in a variety of jobs, especially in the field of applied skills. In this regard, this study sought to determine if TVET graduates have adequate skills in handling tools and equipment in the workplace.

Figure 24: Employers satisfaction on TVET graduates' knowledge of the use of tools and equipment in the workplace (Net satisfaction)



These findings concur with a number of studies that have documented the gap between TVET graduates and industrial demands. This gap is also still evident in Rwanda since it is clear that TVET graduates' knowledge of the use of tools and equipment does not satisfy employers as appropriate. According to statistics, employers have indicated a disparity in the ability of TVET graduates to master working materials, where the large majority (around 70%) demonstrate that TVET graduates lack sufficient knowledge of how to use working equipment such as computers, machinery, and their spare parts and that some are unable to read work instructions and user guides which affect their work performance as well as organizational performance in general.

Therefore, while TVET graduates' job is dominated by applied skills and necessitates knowledge in the use of tools and equipment, in Rwanda TVET graduates still lack the necessary understanding to operate with these tools and equipment in order to achieve the desired results. The capacity gap was also confirmed by employers of TVET graduates as testified by one participant during the interview.

“The idea of establishment of so many TVET schools was good and we have seen that it brought impact. For example, recently, it was rare to find Rwandans who were able to do well finishing works in the construction of good buildings! Garages mostly employed Ugandans! You could find only Congolese in the best salons! Industries employed Kenyans and others! However, today, we have many Rwandans who can do those technical works just because those schools have been established. On the other hand, though those

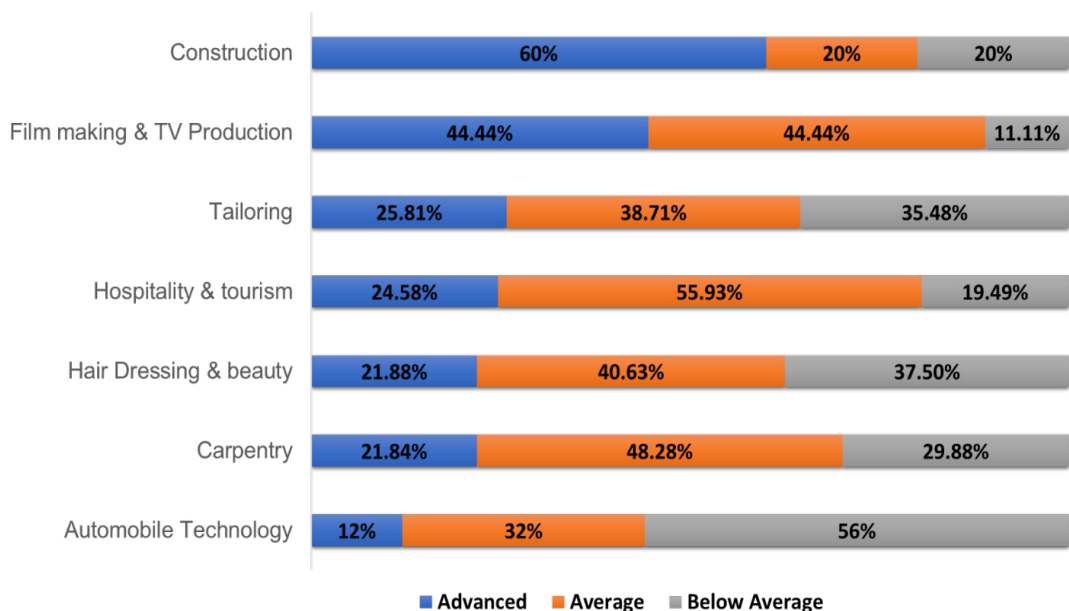
schools have increased in number, there is a need to increase their quality of education. In my Company, at least 100 out of 500 employees were trained from TVET schools but they come here lacking some practical skills”.

WDA and other TVET stakeholders should review the TVET policy and consider the emerging challenges during its implementation and strive to take adequate actions in a bid to increase TVET performance and employer’s satisfaction leading to the sector productivity and economic growth in the long run.

- **TVET graduate’s ability to use new work technologies in the workplace**

Technology helps in keeping the business fully organized. Systems like Project Management Software helps in building, delegating, reviewing, and assessing a task. Employers and managers can easily supervise workplace activities that help in keeping everything on track. Organizations are benefiting from the increased digitization of the workplace through increased productivity, cost savings, a more mobile and agile workforce, and generally increased flexibility and adaptability in an ever-increasingly complex marketplace. In this regard, the study sought to determine whether TVET graduates have sufficient knowledge to use new work technologies in the workplace.

Figure 25: Employers’ opinion on TVET graduate’s ability to use new work technologies in the workplace



According to the employers who took part in this survey, there is still a gap in the usage of new technologies for TVET graduates. Cumulatively, except for construction, a large majority of respondents (beyond 50%) believe that TVET graduates have not acquired the necessary knowledge (those with average and below average) to use emerging technologies in all the TVET domain, indicating that there is still a considerable knowledge gap in using new technologies among students studying in this field. This gap was also confirmed by employers who participated in the interviews as highlighted in the quote below:

“Some schools still use old-fashioned equipment and do not teach new systems. We have seen that graduates do not have enough skills and it’s a serious issue. They lack practice! They use equipment including automobile engines that are old-fashioned and do not know new systems and technology. For instance, some schools teaching automobile technology still use 2002 engines while the engines of 2020 are different from those old ones”. An employer in one of the garages interviewed in Kigali.

Similarly, the same issue was raised by employers in the hairdressing and beauty domain who claimed that:

“TVET schools teach students using cheap and old teaching materials/tools while here at the market things change every day and we use new products. In their teaching, teachers do not adopt new technology. They only teach the same things. For instance, we rarely receive graduates who have an idea on how to mix hair colors while it is the new fashion. Here in our salon, it is only me, the manager, and another employee who know to mix colors in the hair. For example, in our saloon, when graduates use those new tools, they sometimes accidentally burn clients’ skin or cause electrical damages in those tools”.

TVET institutions at all levels need to provide every student with the knowledge, skills, and learning opportunities required for living and working in an increasingly technology-driven environment. This is particularly important in TVET when it comes to preparing learners in a Digital World.

4.6. Factors underpinning TVET governance failures

Rising youth unemployment is one of the most significant problems facing economies and societies in today’s world, for developed and developing countries alike (UNESCO, 2016). The youth employment crisis and evident skills mismatch between labor market needs and general and vocational education have raised recognition of the importance of technical and vocational education and training (TVET). Although, the capacity of TVET systems to provide high-quality and relevant training depends largely on the quality of its governance (ILO, 2015). Devolving the governance of TVET to sub-national level is an issue of growing interest to countries across the

world as they seek to improve the effectiveness of their vocational education and training systems to meet increasing economic and social demands. Devolution offers the prospect to tailor skills development to meet local demand and engage employers in public services that act efficiently and seem relevant to their needs (British Council, 2017). Considering the findings of the aforementioned researchers, this study also wanted to determine how staff and students perceive the current state of governance in TVET schools. As revealed in the findings, governance in TVET schools is not performing as well as it should.

- **Perception of TVET administrative staff on Leadership gaps in TVET schools**

TVET administrative staff, like others, previously interviewed, expressed their views on leadership in their schools. Good leadership in TVET schools helps to foster both a positive and motivating culture for staff and a high-quality experience for learners. A good leader in the education sector support educators to effectively implement the cycle of planning to enhance programs and practices (British Council, 2017). Within this regard, this study shows a leadership gap in TVET schools as evidenced by administrative staff who participated in this survey.

Figure 26: Administrative staff opinion and agreeance (%) on the leadership gaps in TVET schools



As shown in the table, 57.89% of respondents claim that there is a gap in staff engagement in decision-making in their schools, compared to 42.11% who do not see the problem at all. Besides, 52.63% of respondents claim their schools have effective communication strategies, while 47.37% say there is still a communication gap in their schools. In the same vein, 52.64% of respondents criticized managerial procedural fairness and said there is still a need for improvement, while 47.37% testified that there is no problem. In terms of employee empowerment, 63.16% of respondents said it is not done appropriately and that a problem still

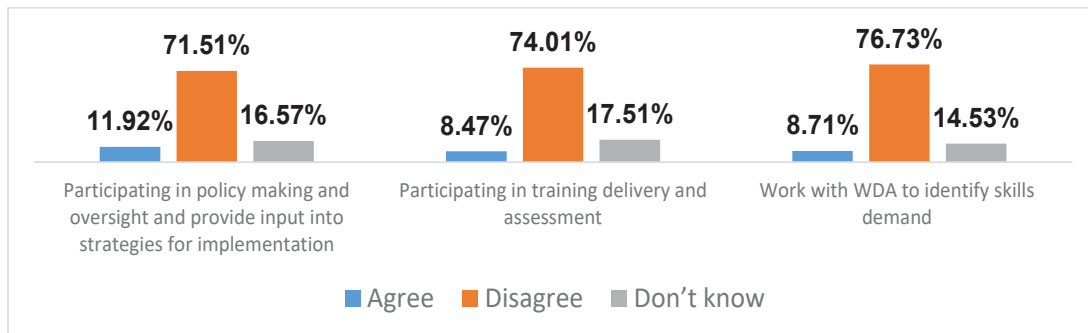
exists, while 36.84% said there is no problem. When it comes to creating clear employee performance standards, 47.37% of respondents believe it is vague and needs to be addressed, while 42.11% believe it is not an issue.

In terms of a good climate for staff collaboration in TVET schools, 57.89% of respondents said there is a problem, compared to 36.84% who said there is no problem. When it comes to motivating employees who have done a good job, such as congratulating them for their hard work, 57.89% of respondents claim it is done well as opposed to 42.11% who said it is a problem. When asked whether accountability is functional in TVET schools, 57.89% of respondents believe it is, while 42.1% believe it is not working properly in their schools. It is well known that when teachers, students, and other staff are satisfied with the leadership of their schools, they become more committed to their work and thus increase their productivity. As long as there is a vacuum in the management of TVET schools in Rwanda, it will be difficult for schools to produce the required outcomes; this is also in line with findings from TVET administrative staff, who claim that to some extent TVET schools in Rwanda has a problem in partnering with private companies.

- **The partnership of TVET schools with private companies as a key player in the industry**

In TVET, Partnerships with private companies are important for the development of high-quality vocational education and training, because they foster regular communication between employers and TVET providers. Such communication is critical in TVET practice as it enables TVET providers to learn more about the skills demanded by the employers, and also allows the employers to have an input in the curricula of TVET, in addition, it gives them a recruiting tool to employ skilled workers (UNESCO, 2019). According to OECD, (2016b) report, the biggest challenges and gaps of the TVET system, is its little responsiveness or flexibility to the demands of the labor market. Integrating labor market needs into the TVET system and linking it with better outcomes is a pressing issue in TVET provision today. The table below provides details on the status of this partnership.

Figure 27: Employers' opinion on their engagement in TVET schools as key player in the industry



Despite the importance of stakeholder engagement in decision-making being demonstrated in numerous studies, interacting with employers in TVET schools in Rwanda remains a challenge as shown in this study. According to the above findings, a large majority of TVET graduates employers interviewed (around beyond 70 %) believe that TVET schools do not engage them in participating in policymaking and oversight as to provide input into strategies for implementation, they neither participate in training delivery and assessment nor work with WDA to identify skills demand. However, during the interview with the Principal of IPRC Kigali, it was clearly stated that employers are invited to contribute to the development of TVET, but they always show little importance for this matter. This statement is illustrated in his quote as follows:

“Though we invite them, the private sector does not play its role in the development of the curriculum. When invited to contribute, they send the staff who do not have expertise. They only select those who do not have a lot of work to do while we need those who are really experienced, who can provide their contribution with tangible inputs”.

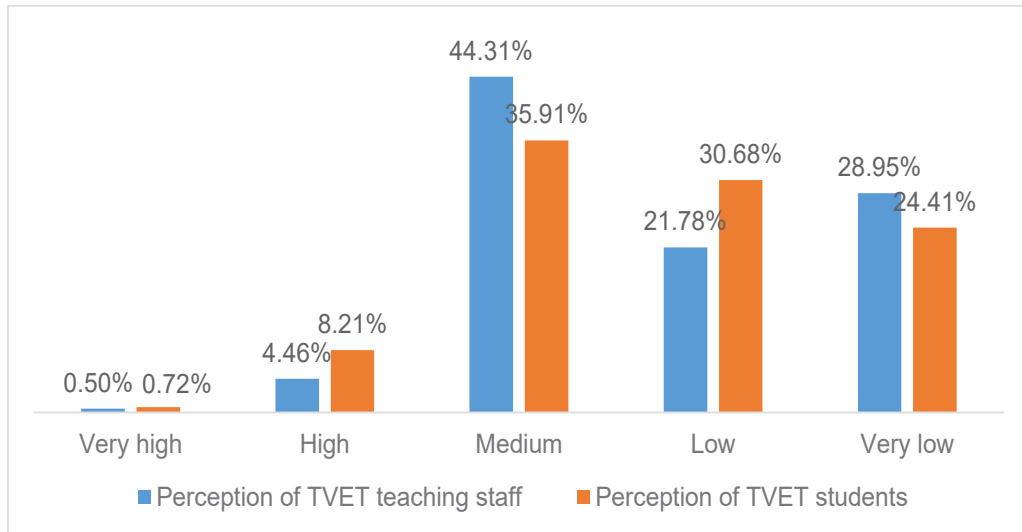
While the employer’s engagement is key in the development of a curriculum that is relevant to the needs of the labor market, work with WDA to identify skills needed and have an input into strategies for implementation, unfortunately, within the present system, there is a limited employer engagement in decision making as shown in this study. As stipulated in the 2015 TVET policy, increased involvement of employers can provide a valuable means of obtaining additional funds and technical advice to help ensure that provision becomes more efficient and responsive to the market needs. It is therefore imperative to integrate labor market needs into the TVET systems to ensure that national skills needs are matched with the curriculum and address the shortage of employability. The advantage of involving employers among all key TVET stakeholders is essential to ensure efficiency as well as the transfer of technology and best practices.

- **Corruption in TVET schools in Rwanda**

Corruption in education constitutes a serious threat to the successful achievement of education for all(EFA) as it tends to reduce the resources available for education, limit access to education

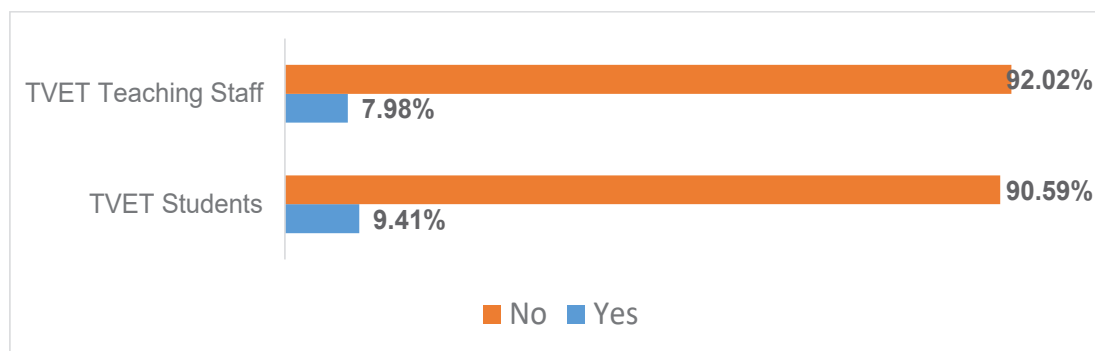
(particularly for the most disadvantaged groups), to deteriorate the quality of education. According to UNESCO (2007), corruption in education is not a recent discovery. Observers in the management of education systems noted several decades ago a variety of instances of distortions in the use of resources: appointment, deployment, and payment of teachers (Brazil); ghost teachers (Indonesia); production and distribution of textbooks (Philippines); private tutoring (Mauritius); and private use of official cars from the education administration (Haiti), etc. Fraud in the use of aid targeted at education is not a new phenomenon either. This survey examined the extent to which corruption exists in the TVET schools in Rwanda.

Figure 28: Perceived level of corruption in TVET schools in Rwanda



The level of corruption in TVET schools in Rwanda is perceived moderate as affirmed by the majority of students (36%) and teachers (44%) interviewed in this study. This finding concurs with the study on the status of corruption in Rwanda conducted by the Office of the Ombudsman which revealed that the perceived level of corruption in Rwanda stands at 54.5% on average, indicating a moderate level of corruption in the country. Moreover, the same study showed that corruption in the education sector in Rwanda was estimated at 43% which is closer to the perceived score as revealed by teachers from the TVET schools involved in this study. Though still moderate, the existence of corruption in TVET in Rwanda will certainly undermine efforts made by the Rwandan government's development strategy prioritizes such as vocational and technical training engineering in a bid to develop human capital and turn Rwanda into a knowledge-based economy. The figure below provides the status of respondents' experience of corruption during the last 12 months.

Figure 29: Students/Teachers' experience of corruption in TVET schools in Rwanda



Both students and teachers revealed that they experienced bribes in the last 12 months preceding this survey according to 9.4% and 8% of them. Relatively, this finding corresponds to the level of bribe encounter in TVET as shown in the 2019 Rwanda Bribery Index published by Transparency International Rwanda whereby TVET schools in Rwanda were ranked at the first position in demanding bribes with 12.8% of the likelihood of doing such malpractice. Corruption in TVET is a fact as evidenced by the Principal of IPRC-Kigali who was interviewed in this study. He said:

“We do not tolerate cases of corruption. We (IPRC Kigali) recently dismissed two lecturers accused of corruption in changing students' grades. One of those lecturers' voices had been recorded while requesting bribes. But we were surprised to hear that he went to court and the Judge said that we had no rights to collect evidence by recording him”.

As Wallis (2004) puts it, corruption has a great impact on the provision of social services, including education such as school enrolment and drop-out rates in developing countries; and that bribes and payoffs in teacher recruitment and promotion tend to lower the quality in less developed countries. The details of bribes paid by respondents (students and teachers) are provided in the figure below.

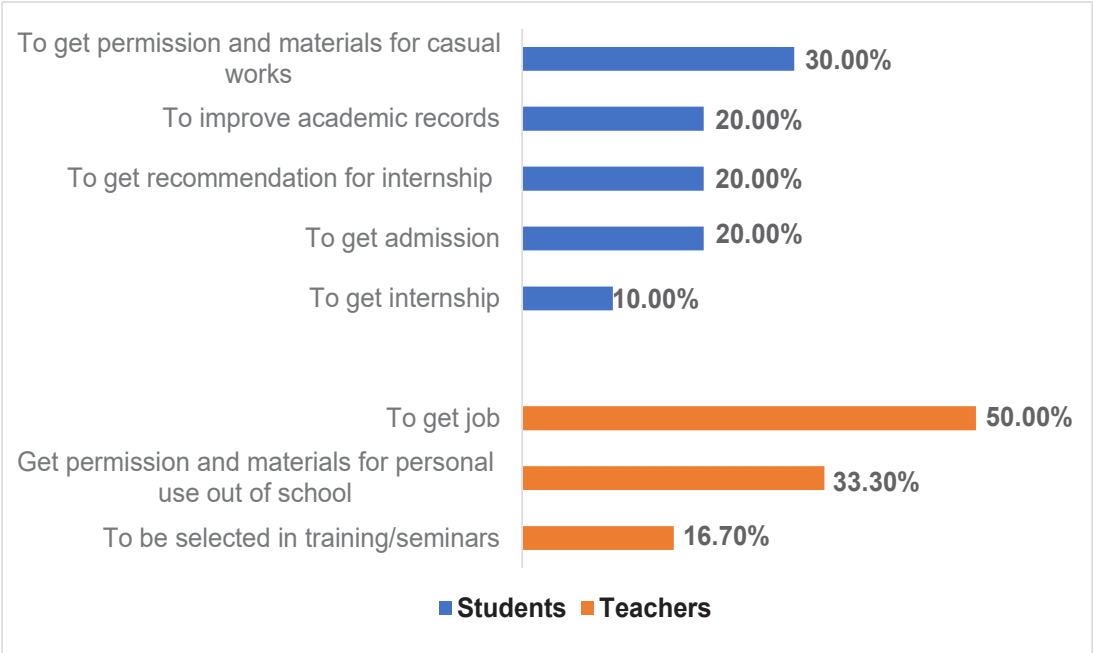
Table 3: Amount of bribe paid in TVET schools in Rwanda

Unit of measurement	Students	Teachers
Minimum	RFW 2,000.00	RFW 15,000
Average	RFW 15,750.00	RFW 203,750
Maximum	RFW 50,000.00	RFW 600,000

The findings show that teachers in TVET schools have paid a bigger amount of bribes compared to their students in the last 12 months. The illegal payments from teachers vary from RFW 15.000 (minimum) to RFW 600.000 (maximum) with an average size of bribe paid worth RFW 203.750. In some cases, teachers are obliged to pay a bribe while they are seeking for the job in TVET

schools and tend to influence the recruitment process. Without a doubt, this practice will negatively affect the quality of teachers hired in these schools. It is also unexpected to realize that in TVET schools, a student is asked to pay an amount of RFW 50.000 in exchange for getting a service. These are students who sometimes do not afford to pay school fees and related resources to participate in TVET Education particularly during practical sessions which also impact their learning outcomes. The study looked at the most common reasons for demanding bribes in TVET which are detailed in the figure below.

Figure 30: Most common reasons for a bribe in TVET schools in Rwanda



Major reasons for paying a bribe in TVET schools in Rwanda, as revealed by the students and teachers include:

For students:

- to get permission and materials to be used for casual works outside the school (30%);
- to get admission (20%);
- to get recommendation for internship (20%);
- to get improved academic records (20%);
- to get an internship in private institutions (10%)

Corruption between teachers and students was proved to be prevalent in TVET schools with the main reason of getting improved academic grades from teachers. This is highlighted in the following statement from a TVET student.

“I know there is corruption in TVET between teachers and students. Recently, one of my colleagues showed me a message from one of our lecturers who had promised to give him better grades in exchange for a bribe”.

For Teachers:

- to get a job in TVET schools (50%);
- to get permission and materials to be used for personal works outside the school (33.3%);
- to be selected in pieces of training/seminars (16.7%)

The above findings on bribe payment as a way for teachers to get a job in TVET schools were also echoed during the interview with a teacher in a private TVET school who testified that:

“I once applied for a job position in one of the IPRCs. One of the criteria of the job application was to hold at least a Bachelors’ degree (Ao), which I hold. It was really dismaying that we saw some shortlisted candidates with only A1 Diploma and the job was finally awarded to a person with A1. I, personally can no longer apply for a job in IPRCs because I know I will never succeed due to the rampant corruption in the recruitment of teachers”.

Another testimony collected through FGDs with teachers, it was found that other reasons to indulge in corrupt practices among teaches were to get permission and materials to be used for personal works outside the school. This is well detailed below:

“Let me give you some cases of corruption in our schools. A few years back, I needed some Consumable Materials to use in the practices, then I made a requisition for those materials, according to the instructions. I had to get approval from my direct supervisor (to confirm the necessity of those materials). Then, my supervisor instructed me to make a requisition for more materials beyond what I had to use in order for him to approve my requisition. I took what I needed and handed the rest to him, which he sold.

Another sort of corruption that frequently occurs among my coworkers is when a part-time teacher bribes his or her boss to make his or her schedule easier for him or her, such as, facilitating teachers to work part-time jobs in exchange for some percentage of the money earned from those jobs. A testimony from a Teaching Staff in one of TVET schools in Kigali “.

Remarkably, many of these reasons are similar to those that emerged from the report by UNESCO in 2007 such as instances of distortions in the use of resources, appointment, and deployment of teachers, private use of official materials from the education administration, etc. In the same vein, other reasons collected from students concur with those indicated in the 2019 Rwanda Bribery Index which also found that the main reasons for paying a bribe in TVET in Rwanda include getting a certificate for the internship, getting admission, and getting permission to seek temporarily job outside the school. It is worth noting that most of the reasons of corruption examined in this study are associated with TVET school's governance failures and leadership gaps as discussed previously. This is also confirmed in the report by UNESCO (2007) which displays a number of internal factors that are conducive to corruption in the education sector in developing countries. These include for example:

- The absence of clear norms and regulations as well as the opacity of procedures;
- The lack of clear procedures in supervision and disciplinary matters that allows the expansion of phenomena such as ghost teachers or teacher absenteeism;
- Monopoly situations and discretionary powers;
- The lack of professional norms (teachers, in particular, do not have a clear idea of what they are entitled and not entitled to do);
- Low salaries and weak incentive systems;
- Low management capacity (good governance requires adequate management, suitable accounting and auditing tools, and the capacity to use them);
- Weak accounting and monitoring systems, and lack of supervision and control mechanisms that create risks of corruption, such as diversion or embezzlement of funds;
- The scarcity of information and its inaccessibility to the general public

The opacity of procedures in the TVET governance system is illustrated in this study whereby the accreditation process of TVET Schools was criticized by some lecturers from private TVET schools who participated in this study as lacking transparency or simply with high risks of corruption. The following is the testimony of one of them in this regard.

“Some TVET schools get final accreditation without meeting requirements. We have seen so many cases of corruption in the accreditation of the TVET schools. Some TVET schools got final accreditation due to corruption involving the Authority with the mandate to issue the TVET accreditation. To be honest with you, some years ago, I was also the victim of corruption when I was asked to pay FRW 5000.000 to get accreditation of my Technical School. It is also surprising to see cases where a school with only provisional accreditation being allowed to hold students’ graduation. Unfortunately, we have witnessed several instances where this happened”.

TVET schools are therefore required to improve their education system by putting in place clear guidelines and rules aimed at enhancing transparency and accountability in the management of their human and financial resources to pave the way for deep social transformation in their sector.

5. Conclusion and Recommendations

5.1. Conclusion

This baseline study is an integral component of the project “Enabling stakeholder engagement to raise attainment in TVET through Accountable School Governance and leadership” which aims to enhance TVET school’s accountable governance and inclusive leadership for delivering excellence in terms of learning outcomes and employability. The study used both a quantitative and a qualitative approach to allow the triangulation of collected data and information and therefore increase the validity and reliability of the findings. Quantitative data were collected in 40 TVET schools located in 10 districts selected purposively. Four categories of respondents were involved in this study namely TVET students, teachers, Administrative staff, and Employers of TVET graduates. The study findings, therefore, reflect the opinions and experiences of a range of TVET stakeholders on various aspects of the study objectives.

Concerning the performance of TVET vis –a- vis their mandate, the study reveals that the majority of students in TVET schools receive practical teachings at their school (69%), at least once a week (66.2%) and that practices last for above one hour (61.1%). However, another important proportion of respondents revealed that they do not get enough time for practice (38.9%) while others claimed that they rarely get practices in their schools (33.8%); 66.34% of teachers said they participated in conferences or seminars in the last three years through some other aspects of teachers’ professional development activities seem to be overlooked, such as observation visits to other TVET schools and individual or collaborative research on a topic of TVET domain; 60.4% of respondents agreed that their school equips technical education teachers with the latest technological innovations and appropriate classroom practices. However, only 58.42% of respondents agreed that qualified and specialized instructors can teach TVET courses in their schools.

Concerning the quality of programs in TVET schools, the study shows that only 40.4% of teachers believe there is still a connection between curriculum and market demands and more than 70% of TVET graduate employers say programs such as Film making and TV production, Construction, and Hairdressing and beauty need more development. Moreover, though efforts appear to have been made to increase the number of classes at TVET schools dedicated to practical training, this study highlights some gaps in as far as the equipment that fit with the number of students in the workshops (with only 58.9% who said that it is sufficient). Furthermore, the study indicates that 22.7 % of students did not complete their internship and only 52.13% of respondents confirmed the existence of adequate supervision of interns.

In terms of the managerial practices in TVET schools, a large proportion of teachers affirmed that they attend staff meetings to discuss the school's vision and mission, participate in the discussion of developing/ reviewing a school curriculum or part of it and take part in the debate and selecting the instructional medium (e.g. textbooks, exercise books), etc. However, around 54% disagree with the fact that school management meets with students regularly so that students do not pick up information from the grapevine.

Students' satisfaction with the quality of education provided in TVET was also analyzed. It emerged from the findings that (61%) of them were satisfied with the quality of teaching in TVET schools, the quality of subject content was perceived to be good as confirmed by 57.73% of students while 18.6% of students qualified the quality of practices provided in the subjects as sub-standards. In the same vein, the majority of students (around 60%) believe the quality of practices in the subjects was moderate, meaning fairly acceptable.

The study also examined factors underpinning TVET governance failures which include a gap in staff engagement in decision-making according to around 32% of administrative staff. Additionally, a large majority of TVET graduates employers interviewed (beyond 70 %) believe that TVET schools do not engage them in participating in policymaking and oversight as to provide input into strategies for implementation, they neither participate in training delivery and assessment nor work with WDA to identify skills demand.

The level of corruption in TVET schools in Rwanda is perceived moderate as affirmed by the majority of students (36%) and teachers (44%) interviewed in this study. Both students and teachers revealed that they experienced bribes in the last 12 months preceding this survey according to 9.4% and 8% of them. Major reasons for paying a bribe in TVET schools in Rwanda include getting permission and materials to be used for casual works outside the school (30%); to get admission (20%); to get a recommendation for internship (20%); to get improved academic records (20%); to get an internship in private institutions (10%) for students. For teachers, the main reasons behind corruption were to get a job in TVET schools (50%); to get permission and materials to be used for personal works outside the school (33.3%); to be selected in pieces of training/seminars (16.7%).

Finally, the study looked at the level of satisfaction of Employers of TVET graduates with the quality of education. It emerged from the findings that TVET graduates' ability to work autonomously is still limited in all the TVET domain, TVET graduates' knowledge of the use of tools and equipment does not satisfy employers as appropriate and that, except for construction, a large majority of respondents (beyond 50%) believe that TVET graduates have not acquired necessary knowledge (those with average and below average) to use emerging technologies in all the TVET domain. Although research reveals loopholes in TVET governance, we cannot overlook the fact that new reforms have recently been introduced, and among its objectives include addressing those gaps identified by this study. It is clear that many of the problems in the TVET sector occurred when the sector was led by the WDA. Thus, the government's recognition of the sector's shortcomings and the introduction of a new reform to replace the WDA is a promising step toward addressing the issues raised in this study. So it is too early to criticize the outcomes of this reform as it has only been in existence for less than two years. Considering the challenges and hindrances that emerged from this study, the following recommendations are formulated.

5.2. Recommendations

Issue/Challenge	Recommendation	Intended actor/Institution
Short time or insufficient practices for TVET students as well as the quality issue of practices in the subjects offered in TVET	TVET schools are required to devote more time and effort to improve the quality of practical learning to ensure TVET graduates receive sufficient hands-on skills that fully satisfy industrial needs.	MINEDUC, WDA, TVET providers, Districts, Private companies
The programs offered in TVET schools are not adequately linked to market demands	All TVET programs should be expanded to the extent that graduates become acquainted with the knowledge, skills, and learning opportunities required for the market needs and be able to work in an increasingly technology-driven environment.	MINEDUC, WDA, TVET providers, Districts, Private companies, TVET teachers, and students
A limited number of qualified and specialized instructors with the capacity to teach TVET courses	To attract qualified and specialized instructors to teach in TVET institutions, there is a need to review their working conditions. Motivated teachers should also be supported in their efforts to build linkages with industries. The strengthening of linkages between TVET teachers and industries is considered crucial in preparing students to meet the dynamic work requirements	MINEDUC, WDA, TVET providers, Districts, Private companies
Some students did not complete their internship, Inadequate supervision of interns from TVET schools, and Limited engagement between TVET and key stakeholders (students, staff, employers of graduates),. Insufficient TVET equipment that fit the number of students in the workshops	MINEDUC and WDA should play their role in instilling a good partnership between TVET and private companies and ensure their involvement addresses a number of issues such as the availability of internships of students and the shortage of school equipment, hence contribute to making TVET more efficient and responsive to the market needs.	MINEDUC, WDA, TVET providers, Districts, Private companies, TVET teachers, and students
Existence of corruption in TVET schools	TVET institutions are required to improve their internal rules and guidelines aimed at enhancing transparency and accountability. Measures to prevent corruption should also be taken such as adequate resource management and control mechanisms, suitable accounting and procurement system, and the capacity to use them.	TVET providers, WDA, MINEDUC, Ombudsman, RIB, National Prosecution Authority, District, Transparency International Rwanda

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