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**FACTORS INFLUENCING ENROLLMENT IN TECHNICAL AND
VOCATIONAL EDUCATION TRAINING SCHOOLS IN RWANDA;**

**Case of Technical and Vocational Education Training Schools in Kigali City
and Southern Province**

By

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**A dissertation submitted in partial fulfilment of the requirements for award
of the degree of Masters of Education in Educational Leadership and
Management**

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Kigali, August 2022

DECLARATION

This research dissertation is my original work and has not been presented to any other institution.

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APPROVAL

We, the underlined, certify that we have read and hereby recommend for acceptance by the University of Rwanda, a dissertation entitled Factors influencing enrollment in TVET schools of Rwanda: case study of Kigali City and Southern province “in partial fulfillment of the requirement of the award of master of Education in Leadership and Management.

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DEDICATION

This work is dedicated to my family members for their patience and support during the period of my studies.

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LIST OF ACRONYMS AND ABBREVIATIONS

EFA: Education for All

EICV: Enquête Intégrale sur les Conditions de Vie des ménages

ESSP: Education Sector Strategic Plan

FAWE: African Women Educationist

GoR: Government of Rwanda

HIV/AIDS: Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome

ILO: International Labour Organization

MDGs: Millennium Development Goals

MDGs: Millennium Development Goals

MIFOTRA: Ministry of Public Service and Labour

MINECOFIN: Ministry of Finance and Economic Planning

MINEDUC: Ministry of Education

NESA: National Examination and School Inspection Authority

NISR: National Institute of Statistics of Rwanda

RTB: Rwanda TVET Board

TVET: Technical and Vocational Education and Training

UNESCO: United Nations Educational, Scientific and Cultural Organization

UPE: Universal Primary Education

SWAp: Sector Wide Approach

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ABSTRACT

The Ministry of Education, has created the Technical and Vocational Education and Training (TVET) with aims of gaining of knowledge, skills and attitude for the response of labor market in terms of quality and numbers. However, despite the efforts made by different education stakeholders to strengthen the TVET schools, low enrollment in TVET schools poses a big problem. This research assessed the factors influencing enrollment in TVET schools of Rwanda. To do so, TVET policy makers, TVET schools' head teachers, students and parents were consulted in order to assess which among the school-based, socio-economic and psychological factors namely Curriculum content, Textbooks availability, Trainers' capacity, Trainers' insufficiency, Workshop status, Training materials and equipment, Availability of training consumables, School leadership, School location, Boarding facilities, Government scholarship, School fees, Education costs, Family income, Family conflict, Parent's education, TVET negative perception, Employment opportunities, are the main causes to low enrollment in TVET Schools and devise measures to increase enrollment. A descriptive study using the survey method was considered and 3 educational policy makers from MINEDUC as education policy designer, NESAs as education policy regulator and RTB as education policy implementer, 6 school head teachers, 6 parents and 398 students were selected as sample to be contacted using questionnaire with the purpose of responding to the set of research questions. Findings of the study revealed school-based and socio-economic and psychological factors as the predominant causes of low enrollment in TVET Schools and they are connected with TVET misconception and lack of career path. As a solution to that challenge, some strategies like mobilizing resources to invest in TVET, linking training programs with job market demand, strengthening collaboration among stakeholders to name but a few were suggested to education stakeholders.

Key words: Education, TVET, Enrollment.

CHAPTER ONE

GENERAL INTRODUCTION

1.0. Introduction

This study deals with the analysis of factors affecting enrollment in TVET schools in Rwanda. This chapter dealt with the background of the study, definition of the problem, objectives of the study, research questions, significance of the study, scope of the study and limitation of the study, definition of key terms and then came with the summary of the chapter.

1.1. Background to the Study

The twenty-first century is largely characterized by globalization and technological revolution. Sherman T. and Wood H. (1982) reflect on education as an investment in human capital that reaps economic benefits by increasing people's productive capacity. It is considered essential for socio-economic development. Schultz (1961) and Damson (1962) showed that education is the primary contributor to the direct growth of national income because it increases people's skills and knowledge. Education is a prerequisite, which is considered the first stage for any human movement. It plays a vital role in the growth of human capital and is related to individual well-being and opportunities for a healthier life (Tan, Choo, Kang, & Liem, 2017).

Technical and Vocational Education and Training (TVET) is one of the important tools that an individual can use for development. TVET trainings are of great importance for the performance of work in business, industry, small enterprises, agriculture and domestic manufacturing companies. Preparation for self-sufficiency places greater emphasis on technical and vocational education. The American Professional Association (1971) considers professional topics to be

topics designed to develop skills, abilities, understanding, attitudes, work, and appreciation that surround the knowledge and information that any workforce can enter and advance in service on a worthwhile and productive basis. TVET contributes to the production of good citizens by developing their physical, civic, social and economic capabilities.

According to UNESCO and ILO (2002), TVET is a broad term denoting those features of the educational procedure combining, in addition to general education, the study of technology, related sciences and the acquisition of applied skills, understanding of attitudes and knowledge relating to jobs in many sectors of economic and community life.

van Halsema (2017) states that TVET has been identified as one of the most important human resource development strategies that Rwanda has adopted to train and upgrade the technical workforce for national development. Since 2008, the Government of Rwanda has been making more efforts to expand TVET and attract local, foreign investment as well as development partners to produce a skilled and competent workforce.

The important advancement made by the GoR towards Rwanda's education strategy objectives, as well as the international obligations to Education for All (EFA) and the MDGs, is broadly recognized. In the same way, though at a minor rate, Higher education and TVET have indicated a significant progress on access and quality of education (MINEDUC, 2018).

The TVET sub-sector has established an inclusive policy framework and institutional organization infrastructure for delivery of the TVET policy (2015) and associated strategy, like a National Policy on Workplace Learning to equip Rwandan Youth with skills for Employment (Workplace Learning Policy) (MIFOTRA, 2015) emphasizing for Rwanda to move towards a demand-driven,

labor market-oriented system of training, with programs that generate the skills necessary in the employment world and independent employment.

There has been an unceasing growth in the number of students and TVET schools in preceding years (2012-2016) in which the enrollment came from 74,320 (2012) to 93,154 (2016) and this TVET attendance is major in urban rather than in remote areas where it is maximum in Kigali than elsewhere (NISR, 2016). Once age is considered, enrollment of youth to TVET is limited (about 2%), whilst the highest TVET school attendance was detected among the population aged between 20 and 24 years (5%) (NISR, 2016). It has been detected a severe decrease among the older cohort of those aged between 25 and 29 years (from 12% in EICV-3 to 3% in EICV-4), an indication that access to TVET is getting more common among the younger individuals than the older ones.

TVET enrollment is more predominant among the population in the richest feasting quintiles compared to those in the poorest ones. Exemplary while TVET enrollment in the poorest quintile was recorded as 1.2%, it was 3.75% for the wealthier quintile (NISR, 2016).

According to NST1 key strategic intervention of scaling up the number of TVET graduates with skills relevant to the labor market for creating 1,500,000 (over 214,000 annually) decent and productive jobs for economic development (MINECOFIN, 2017), to scale up the TVET enrollment, different strategies at different levels from policy makers to implementers were set to achieve the national targets of being a knowledge -based economy country.

The National Strategy for Transformation 1 highlights the promotion of Technical and Vocational Education and Training (TVET). In this regard, the current Education Sector Strategic Plan indicates that the proportion of students pursuing

TVET will increase from 31.1% in (2017) to 60% by 2024 to address the challenge of mismatch in labor market demand.

Furthermore, ambitious strategies to reach the enrollment targets (60%) were set such as ensuring relevance to the labor market, through the provision of an innovative, responsive training system, Provision of career guidance and counselling services at all TVET institutions to orient trainees towards potential opportunities in the rapidly varying Rwandan labor market, safeguarding that TVET programmes are approachable to both labor market needs and the social and economic development of Rwanda. Additionally, the focus will be put on increasing applied research, science and technology, targeting novelty in economic sectors, and amplified usage of ICT in all TVET programs (MINEDUC, 2017).

To increase enrollment in TVET, GoR have created awareness programmes at national and district levels to sensitize parents and students to the opportunities offered by TVET, and to alert employers to the value added by graduates of TVET programmes. In addition, the recognition of prior learning approach will be used to attract mature TVET students with many years of practical field experience but without recognized qualifications. It is in this context this qualification delivers learners with the opportunities to acquire at diverse levels, depending on their needs. Working more closely with the private sector will help enlarge access, as well as providing students with access to more work-based assignments, which will increase the relevance of TVET (MINEDUC, 2017).

Based on Education Sector Strategic Plan 2017-2024 targeting the high enrollment in TVET schools, the following table indicates the enrollment trends:

Table 1: MINEDUC National strategy for Transformation targets

School year	2016	2017	2018	2019
Number of students passed S3 exam	73897	79198	86837	81998
Enrollment in TVET at level 3	20825	24,603	12,170	9,922
	28.2%	31.1%	33.1%	31.6%

Source: MINEDUC Year Book, 2019.

1.2. Statement of the Problem

According to MINEDUC (2013), education is a critical investment in the country's future growth and development. Although the Government of Rwanda formulated ambitious policies and their strategies to strengthen the relevance of education and training, it was observed that the set targets have never been met accordingly as evidenced by the previous ESSP (2010-2017). Based also on the current ESSP (2017-2024), it is found that the enrollment in Technical and Vocational Education and Training schools is still low compared to 9 YBE graduates.

According to MINEDUC (2021), the enrollment rate in TVET schools is more linked to many factors at national, local and community level. However, according to the experimental review conducted within the framework of the current research, it was noted that the enrollment rate is at a slower pace 33.1 in 2018, 31.6 in 2019, 31.9 in 2020-2021. In addition, there are assumptions that the low enrollment is linked to negative perception of parents and students but some TVET Schools are overpopulated while others are less which translates that the

perception is not the only factor of the low enrollment. Hence, the present study intended to assess the factors influencing enrollment in TVET schools, and available strategies to address the issues related to the low enrollment. The Government of Rwanda has already set the foundation to address the issue, but made it clear that finding a strong solution requires intensive efforts from all stakeholders, especially parents, students and school leaders. Though other researchers have already tried to assess factors influencing enrollment in schools but it was found out that this is still an alarming issue to the country specifically in TVET Schools. Thus, in this study, a researcher would highlight factors influencing enrollment in TVET schools and which among the factors are the main causes of low enrollment, the role of the education stakeholders in increasing the enrollment and strategies to adopt in order to address the issue.

1.3. Research objectives

1.3.1. General objective

The general objective of this study was to analyze the factors influencing enrollment in TVET schools of Rwanda.

1.3.2. Specific objectives

The specific objectives of the present study are:

1. To assess factors influencing the enrollment of students in TVET schools.
2. To critically determine the causes of low enrollment in TVET schools.
3. To identify the role of educational stakeholders and strategies to increase the enrollment in TVET schools.

1.4. Research questions

1. To which extent do school-based and socio-economic factors influence enrollment in TVET schools located in Kigali City and Southern province?
2. What are the causes of low enrollment of students in TVET schools located in Southern Province and Kigali City?
3. What is the role of educational stakeholders and new strategies to increase the enrollment in TVET schools?

1.5. Significance of the Study

Based on the stated objective, the findings of this research have deep significance for the identification of low TVET enrollment influencing factors. The research findings would enable education policy makers devise new strategies to increase enrollment in TVET Schools. The study findings would inform the education stakeholders the factors influencing enrollment and causes of low enrollment. The essence of this study was that its findings would be of tremendous assistance to the Ministry of education, school leaders, parents and beyond. The research would also add to the existing literature for academic use and for practitioners in the domain of education, particularly TVET sub-sector. It would also serve as the reference and may call for further in-depth researchers on the topic, particularly the role of school community in increasing enrollment.

1.6. Scope and Limitation of the Study

1.6.1. Scope of the Study

The scope of the research refers to the areas that were covered in the research. Although the Government of Rwanda endeavors to strengthen the relevance of

education and trainings in order to meet the labour market demands by increasing the number of graduates attending technical and vocational education and training, it is evident that students' enrollment in TVET schools is still very low compared to 9 YBE graduates. This research was scoped to factors influencing enrollment in TVET Schools and causes of the low enrollment in TVET schools. It was expected to analyze the causes of low enrollment in TVET schools and recommend some strategies for the increase of enrollment.

It only covered a period of three school years (2018 to 2020-2021) as the period of implementation of the current education sector strategic plan (MINEDUC, 2018). The work is geographically delimited in Kigali City and Southern Province respectively. The study was typically delimited in Education, especially factors influencing enrollment against enrollment.

1.6.2. Limitation of the Study

For academic purposes, the research was conducted in Kigali City and Southern Province where there are a big number of TVET Schools and representing rural and urban area. The results obtained would be used to have a real picture of enrollment for other TVET Schools in Rwanda and would enable to devise measures related to the enrollment increase. The limitations were also related to time allocated to the dissertation, financial resources, and lack of reliable data. Due to financial limitation to access to all corner of the country, this led the researcher to focus on the provinces with a high number of schools in Rwanda.

1.6.3. Definition of key Terms

Enrollment: a process of initiating attendance at school; the number of students registered in the first year of the education cycle.

Education stakeholder: anyone invested in the welfare and success of a school and its students, including administrators, teachers, staff members, students, parents, families, community members, local business leaders, and elected officials such as school board members, etc.

School leadership: a top school management such as Principal, School Head Teacher, school deputy school head teacher in charge of studies and in charge of discipline, teachers, bursar, matron and patron, student representative and parents' representative's committees.

1.7. Summary of Chapter One

This chapter introduced the area to be analyzed. It clarified the focus of the study that made the researcher choose the topic. It provided preliminary background information of the study with a brief topic for both globally and locally in Rwanda. A statement of the problem, objectives, significance, scope and limitations of the study was provided.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

Technical and Vocational Education and Training (TVET) has been taken as one of the aspects of educational processes including, in addition to general education, the study of technology, related sciences and the acquisition of practical skills, attitudes, understanding and knowledge related to occupations. in various sectors of economic and social life (UNESCO & ILO, 2002). This chapter reviewed the literature on various factors that influence enrollment in education. We have presented a conceptual framework and created chapter summaries. We presented existing and ongoing studies relevant to this study by comparing with existing studies. We examined the weaknesses and strengths of existing studies.

2.1. Empirical Review

Empirical study elaborated the relevant previous researches that correlate with enrolment in TVET to be used as the references to develop the study to address the needs and suggestions for the betterment of Rwanda population through TVET.

2.1.1. Perception and enrollment in TVET schools

Aina (2006), Amaewhule (2000), Hubert (2006), Okwori (2006), Olaitan (1992), Oranu (2003) and Yakubu (2006) identified the main factors responsible for the low enrollment in technical and vocational education and found out that they include but not limited to; low social estimation of technical and vocational education and training as education for the lowest class, education as a last resort, for people with low intelligence quotients (IQ), low achievers and for people with

low status, as well as a lack of awareness of careers in technical and vocational education; lack of interest in technical and vocational subjects (Ozioma, 2011). According to Osual (1992) in Oziomo (2011), at the core of our social and economic problem is a national attitude that implies that vocational and technical subjects are meant for someone else's children and are primarily meant for the children of the poor. As results, students share the same attitude. This causes students to be disinterested in studying technical and vocational subjects.

Billet (2009) stated that TVET suffers from a low status and affirmed that the treatment of TVET is as if its benefits are not fully appreciated or understood and its status is shaped by societal views and sentiments regarding vocational learning. Billet (2009) argued that for many parents and students, TVET still remains a secondary education, mostly in developing countries. For example, in Nigeria, parents and students resisted entry into the vocational stream after junior secondary school due to the erroneous stigmatization of the so-called non-academic course (technical and business). According to UNESCO&UIS (2009), there is a low and high imbalance in the number of students enrolled in TVET because very few women enroll in the program. In 1999, the percentage of TVET enrollment in the world at secondary school level was 11 percent; and 10 percent in 2007.

UNESCO (2018) reported that in Kenya, TVET is considered a less preferred option compared to academic education. Poor perception and lack of social recognition hinders the development of TVET and adversely affects its choice by students. This lack of recognition is also reinforced by the lack of opportunities and pathways to higher education. However, these programs are necessary to reduce poverty and increase productivity in developing countries. (Borgen, 2020) showed that in 2018, over 2,500 students chose to enroll in TVET programs despite being academically qualified to study at university, with TVET students

being referred to as "TVET Champions", and the number of students enrolled in TVET increased by almost 1,400 between 2017 and 2018.

2.1.2 2.1.2. Factors influencing enrollment

Researchers identified factors that can influence enrollment in any school. Irungu R. Wangui (2012) underlined four factors that can influence school enrollment such as school-based factors, social-economic factors, social-cultural factors, and educational factors. Consequently, Raja & Burnett (2004) confirm that low enrolment may reflect a lack of supply of schooling, the opportunity costs of attending school, the perceived low returns from schooling in the labour market or other factors such as distance to school and for girls, the existence of female teachers and separate toilets. Radja & Burnett (2004) therefore put-up major determinants of enrolment such as household income, schooling cost, presence of schools, community involvement, transportation, education quality and relevance.

2.1.2.1 School-based factors

Factors that can be considered in school include Curriculum that the school use in training, school environment/infrastructure, school teachers, training materials and school leadership. Brock and Commission (1991) mentioned curriculum as one of the factors influencing students' participation in school in a negative or positive way. In a 2wresearch conducted by Kate R. Blosveren, M.P.P (2006) to determine the relationship between rigorous curriculum requirements and opportunity in high school and college enrollment rates, a positive relationship between curriculum and enrollment rates was noted.

For Wangui (2012) in Kinyanjui (2011), the quality of school infrastructure and curriculum influence the enrollment of students in a school. She asserts that poor environmental factors affect learners negatively. Unlikely, teachers' attitude towards their work and pupils, their classroom management and their interaction

with pupils have a great impact on the retention in school of the pupils, particularly girls. It was noticed that there are cases where teachers' negative attitudes push pupils especially girls out of school. Wangui (2012) based on reports conducted by the Forum for African Women Educators (FAWE) and stated that more than 12,000 girls drop out of school annually due to pregnancy. She added that such a hostile environment discourages parents from sending their daughters to school or withdrawing them from school and students lose interest in education.

Wanjui (2012) in Bedi et al. (2002) find that the availability of qualified teachers and the direct cost of education are the most important determinants of demand and calculate elasticities that describe the sensitivity of enrollment to changes in the cost and level of qualified teachers according to the number of households. Wanjui (2012) highlighted that many poor families could not afford to pay for all the required necessities and therefore pupils were dropped out of school early. A hostile classroom environment from peers and teachers also contributes to student dropout (ibid.). Pitt, Rosenzweig, and Gibbons (1993) assessed the effect of school placement on enrollment using a panel data set that includes fixed effects and found that increasing school supply has a very small but significant effect on the enrollment of 10–14-year-olds and no effect on the enrollment of 15 – 19-year-olds.

Leithwood (2005) and Northouse (2007) discovered other determinants of school enrollment. They argue that school management can influence enrollment and two categories are defined:

Instructional leadership: is the ability of a leader to get others to follow what he desired without any coercion. It is an important aspect of organizational life because the leader helps to set the direction and determine the activities to be done by his subordinates to ensure the achievement of organizational goals.

Leadership has become a key component of the organisation, management and administration of educational organizations and systems, and this development is reflected in both academic and educational policy statements. The basic functions of leadership include setting directions and exerting influence (Leithwood, 2005) and Northouse, 2007)).

Transformational leadership can be interpreted as a process in which leaders use emotions to: communicate a vision to followers as well as elicit responses from followers; and ensuring that followers are emotionally motivated to perform their tasks beyond their own expectations (Brown & Moshavi, 2005; Humphrey, 2002). Christopher & Pamela (2016) divided transformational leadership e into four basic sets of leadership practices as follows:

- a) Building a vision and setting directions: This category of practices involves an effort to motivate leading "colleagues". It is about establishing a common purpose as a basic stimulant for one's work. More specific practices in this category create a shared vision, encourage acceptance of group goals, and demonstrate high performance expectations.
- b) Understanding people and developing them: while practices in this category contribute significantly to motivation, their primary goal is to build not only the knowledge and skills that teachers and other staff need to meet organizational goals, but also dispositions (commitment, capacity). and resilience) persist in applying knowledge and skills. More specific practices in this category include providing individualized support and consideration, promoting intellectual stimulation, and modeling appropriate values and behaviors.

- c) Redesigning the organization: specific practices included in this category concern the creation of working conditions that, for example, allow teachers to make the most of their motivation, commitment and abilities. Specific procedures are building cultures of cooperation, restructuring and recapturing the organization, building productive relationships with parents and partners.
- d) Curriculum management: the specific practices included in this category aim to create productive working conditions for teachers, in this case by promoting organizational stability and strengthening the school's infrastructure. Christopher & Pamela (2016) listed some of the specific characteristics of these practices, such as staffing instructional programs, providing instructional support, monitoring school activity and protecting staff from distraction from their work, providing resources for teachers, and minimizing student misbehavior or disruption. working conditions are highly valued at the school, which the school principals are also able to provide.

2.1.2.2. Governmental factors influencing enrollment

Leithwood et al. (2002: 861–2) confirmed that education policy is high on the agenda of governments worldwide. They see education policy as a response to the impact of globalization, human capital theory, concerns about citizenship, and mechanisms for responsible leadership and management of educational institutions. Les Bell and Howard Stevenson (2003) stated that investment in education and training is seen as key to national competitiveness and social cohesion, often by seeking to improve school performance by setting targets for pupil performance and requiring schools to were developing improvements. plans to meet these goals.

Like many other countries, Rwanda finds itself at a crossroads with commitments to achieve certain international development goals, notably Universal Primary Education (UPE) and Education for All (EFA). In addition, the education system has also tried to fit into the guidelines defined in Vision 2020, Poverty Reduction Strategy, Decentralization Policy and Information and Communication Technology Policy (MINEDUC, 2003).

According to MINEDUC (2003), sectoral education policy must reflect this new policy environment, which requires all spheres of economic activity to be treated as sectors, thus adopting a sectoral approach (SWAp) to match contributions of all actors in the field of education. Many policies related to education have been introduced, such as primary education policy, secondary education policy, higher education policy and scientific research policy. Others are Book policy, Curriculum policy and HIV/AIDS policy. Others include teacher education and management policy, language teaching policy, early childhood care and development and technical education policy. These policies were set as follows:

- Revision of the curriculum to ensure the provision of required values and skills, including values that promote gender equality and equality in all areas of life; •
- encouraging the private sector to absorb some of the increase in numbers, especially in secondary and higher education;
- increase in beneficiary contributions, cost recovery and institutions' own efficiency and income in higher education;
- Involvement of municipalities in the construction, management and supervision of their own elementary schools;
- Improving financial control and increasing efficiency in handling government funds at all levels of the education system.

Based on studies on the supply side of education, Filmer (2004), using information from 21 developing countries, reported that building schools in areas

where there were none, thereby reducing travel time and travel costs to school, would increase enrollment by a small range. Conversely, Handa (2002) believes that building schools will increase female enrollment among poorer households more than among richer households. Suryadarma, D., Suryahadi, A. and Sumarto, S. (2006) in Chernichovsky and Meesook (1985), related enrollment to household socio-economic characteristics and school availability and concluded that beyond the primary level, enrollment is mainly determined by demand, specifically household income and attitude towards education, although school accessibility also has a positive effect.

Pradhan, M. (1998) examines the causes of enrollment and late enrollment among 13- to 18-year-olds and finds some region-specific factors. For Pradhan, parental education has a positive and significant effect on enrollment, with the effect stronger for boys than for girls.

Enrollment in schools can be a consequence of public spending on education. van de Walle (1992) argued that enrollment growth over the period will be driven by rising household living standards, effective pro-poor public spending, especially public spending on primary education, and improving appetite for education.

Sparrow, Haneen, Fadia, Pradhan and Lanjouw (2001) again emphasize that spending on basic education is pro-poor. However, public spending on secondary education is not pro-poor simply because secondary education is predominantly attended by children from poor households. Similarly, Sayed (1996) calculates the amount of public expenditure and determines the factors necessary to ensure that every child has at least nine years of education. It states that parents' decisions to send their children to secondary school depend not only on the usual factors such as income constraints and returns to secondary education, but also on the children's academic ability and the prospect of continuing to higher education.

Cameron (2002) found that a scholarship program can contribute to school enrollment. This work confirmed that in Indonesia, where a scholarship program was introduced during the crisis, it reduced the dropout rate by 3 percentage points at the lower secondary level, but had no impact at the primary or upper secondary level.

Suryadarma et al. (2006) also suggested some policies that the government could adopt to aid efforts to achieve universal lower secondary education. First, the government needs to change the targeted scholarship scheme if it wants to reach children who do not go on to lower secondary school after completing primary school. Another policy that can be adopted in this regard is to increase the opportunity cost of not going to school by providing cash subsidies directly to families on the condition that their children are enrolled in junior high school.

2.1.2.3 Socio-economic factors

Suryadarma et al. (2006) reported that socio-economic issues can affect school enrollment. They argued that the most prevalent factor was the well-being of the household. In their research, they confirmed that children from poor households leave because their parents do not have the means to pay for education, and this happens especially in developing countries where public spending is limited to cover expenses. They emphasized that the inability of families to pay for their children's education is one of the significant reasons for not continuing in school.

Gender discrimination in school participation in some developing countries may also determine school enrollment, as confirmed by Suryadarma et al. (2006).

In Tanzania, Burke and Beegle (2003) recorded the number of hours of schooling as the dependent variable. It has been suggested that policies that would increase schooling are those that affect the demand for domestic work.

Again, Suryadarma et al. (2006) confirm that parents' level of education is considered to be another factor that plays an important role where children of more educated parents are much less likely to drop out of school. In addition, it has been widely recognized that the expected future returns to education relative to the costs of education also determine school enrollment. Handa (2002) found that demand-side intervention—such as ensuring parental literacy and increasing income—has a large impact on child enrollment compared to supply-side intervention.

Jones (2003) cites three reasons for unequal educational opportunities. First, children from poor families do not have the means to pay for transportation costs. This is also related to the fact that children can be extra income for their family. So, the economic situation plays a key role. Second, parents in some parts of the country still have relatively little recognition of the importance of education. Third, among community variables, Jones (2003) also noted higher child labor in some communities, which has a negative impact on children's continuation in junior high schools.

2.1.2.4. Social-cultural factors

Regarding the role of religious and ethnic background in school enrollment, some research suggests that religious background plays a significant role, with children from Muslim families significantly less likely to continue. Ravallion and Wodon (2000) showed that non-Muslim children in Bangladesh are not more likely to go to school or work. Unlikely, Pal (2004) confirmed that still in Bangladesh, children from Hindu families are more likely to attend school.

Borooah and Iyer (2005) compared the difference in 6–14-year-old enrollment between Hindu and Muslim children and between scheduled and non-scheduled caste Hindu children and compared the impact of community on intra-community and inter-community, taking into account religious and caste characteristics with community variables. As a result, caste disparities are reduced in income disparity and in the psychological effect of non-scheduled castes due to discrimination against them. However, between Hindu and Muslim families, they find that the difference in enrollment is greater than the difference in income.

In the United States, Lehrer (2005) examined differences in education among women of different religious affiliations. Based on this determinant, the researcher compared different religious affiliations. He found that conservative Protestants achieve less education, while Jews more and Catholics are in the middle. He therefore came to the conclusion that the absence of religious belief is negatively associated with educational attainment.

Suryadarma et al. (2006) in Hardjono (2004) perceive that prioritizing community education can play an important role in increasing school enrollment as found in some US regions.

Cultural factors also play an important role in school enrollment. For example, the Maduro tribe in Pontianak traditionally arranges for their daughters to get married as soon as they finish primary school. Similarly, Suryadarma et al (2006) found that the net enrollment rate of Bugis children at upper secondary level in 2004 was only 61%, significantly lower than the enrollment rates of children from Javanese and Chinese backgrounds, which reached 70 and 71% respectively.

In conducting the analysis on the causes of low enrollment in TVET Schools, human capital theory which seeks to explain the phenomenon using economic point of views (Rajabhat J. Sci. Humanit. Soc. Sci. 18 (2): 240-253, 2017). According to Gary Backer (1964), human capital is a physical means of production by which organizations invest in human capital through education, training, and health. Rajabhat J. in Becker (1964), advanced that an individual investment in their schooling or training and anticipate that the knowledge, skill earned will be enhanced to their career advancement. Successful organizations adopt the human capital concept to their organization. Nalbantian et al. (2003) indicated that successful organization insist on system thinking, get accurate data and facts, focus on value in the organization as well as the organization's need to clarify human capital strategy carefully while understanding the organization's internal labor market, build a suitable strategy, never make a decision before collecting and analyzing the facts in human asset, making acquisitions work, linking to customer satisfaction and a need to have concern for the implication of business risks.

2.2. Related Literature

2.2.1. Causes of low enrollment in TVET Schools

Researchers identified the main factors responsible for the low enrollment in technical and vocational education. (Ozioma, 2011) argued that causes of low school enrollment include but not limited to; low social estimation of technical and vocational education and training as education for the lowest class, education as a last resort, for people with low intelligence quotients (IQ), low achievers and for people with low status, as well as a lack of awareness of careers in technical and vocational education; lack of interest in technical and vocational subjects.

Based on the enrollment catalysts, (Rick Newberry, 2022), mentioned other causes of low enrollment to TVET Schools such as:

1. **Ineffective Leadership** – This is the source of low school enrollment where the head of school lacks the ability to provide visionary and inspirational leadership. Ineffective leadership always results in enrollment decline. Whenever parents, faculty and staff do not trust the school leadership, it will be hard for the school leadership to produce the enrollment without vision and direction, intention and effort.
2. **Staffing Issues** – whenever the personnel in the enrollment and marketing positions are not the best fit and resources are not mobilized for the critical positions and nurtured for proactivity, the school cannot expect enrollment growth.
3. **Quality and Satisfaction Issues** – This is the most significant reason for enrollment decline that results from sacrificing quality in any area such as programs, teachers, to name but a few, which in turn leads to dissatisfaction. A school that lacks quality and with dissatisfied parents will eventually decline.
4. **Environmental Issues** – Issues that are outside of the school affect the enrollment. These environmental issues can be related to the economy or significant events in the world like war, natural disaster, changes in local community surrounding the school and they are obviously outside of your control in a way that they are nonetheless a key factor to enrollment decline.
5. **Enrollment and Marketing Plan** – the school that lacks enrollment and marketing plans experiences decline of enrollment. If the school dresses the plan that cannot be adjusted depending on the trends and results along the way, no enrollment growth will be expected. While there may be other reasons that

contribute to enrollment decline, a combination of these causes can significantly contribute to a decline.

2.2.2. Factors contributing to School Enrollment Growth

According to Iwayemi, Z. (2020) there are lots of benefits to increasing your school enrolment, and a few of them include:

- As a school owner, you have competitors and to remain relevant in that line, there is a need to enroll more students in your school.
- Year in year out, students graduate and leave your school, it is essential to keep the ball rolling.
- There are people out there that need the services of your school. It would be best if you reached out to them.
- Having more students means increasing the revenue of your school. Trust me; you need more income for you to develop.
- Having more students helps to carve the right name for the school.

According to Enrollment Catalyst, Iwayemi, Z. (2020) noted several factors that contribute to growth and decline in school enrollment including:

Leadership – The vision, enthusiasm and personality of the leadership (primarily the school principal) will affect enrollment. Bennis and Nanus, leadership gurus, believe that “leadership is key to successful organizations.

Quality School Experience – One of the most important factors in school growth is the overall quality of the experience. Parents try their best to invest a lot of money to give their child the best education because they expect to get the best. Iwayemi, Z. (2020) adds that to increase school attendance, a high-quality experience must be integrated throughout the school.

School vision and improvement - school vision and improvement in areas that are strategic can have a positive impact on student growth.

Faculty and Staff – Faculty and staff should be the family's primary connection to the school. Educators are the ones who teach and mentor students. Because they provide a high-quality learning experience and personal contact with students in a positive way, this experience impacts school enrollment.

Parental Satisfaction: Iwayemi, Z. (2020) highlights that when parents are satisfied, at least two primary outcomes affect enrollment. First, satisfied parents will lead to strong retention, and subsequently high retention rates naturally lead to increased enrollment. Second, satisfied parents will tell their friends about your school. This is positive word of mouth in your favor. Without the satisfaction of parents and a positive word of appreciation, you will not be able to develop your school.

Reputation – The experiences of parents, students, alumni, faculty, staff and donors will drive word of mouth, whether positive or negative, in your community. On the other hand, it will create a reputation and your school will be the talk of the street. This general buzz and reputation in the community will affect registration.

Demographics, location, and cost – The demographics of the local community, the location of the school, and the cost of tuition have a significant impact on enrollment.

Competition – One of the problems facing private schools today is increased competition from other schools. Private schools face a very competitive market.

Marketing and Enrollment Plan/Strategy – It stands to reason that any school that wishes to grow enrollment should have a marketing and enrollment plan. With a deliberate marketing and enrollment plan in place, school leaders may be able to implement specific strategies that will impact your school's enrollment.

The essential components of enrollment management are: (a) knowing why students choose to attend a particular institution; (b) understanding why students enroll, disengage, and persist; c) know how students finance educational expenses; d) strategic preparation for future admission and financial requirements of the institution; and (e) linking records management to retention.

Enrollment management requires talented and energetic leaders who must be able to bring out the best in their staff, focus on strengths, and "rise above campus politics and never forget to smile."

Wangui (2012) emphasized that improving infrastructure, providing subsidies, employing more and competent teachers by the government, increasing community awareness of the importance of education can contribute to increasing school enrolment. It also emphasizes the role of parents in guiding and advising their children in matters of education and life, supporting all projects in schools and cooperating with teachers in school activities. She also emphasized parental ownership of the school and improving the health standards of children to make them feel comfortable and encourage children to have a positive attitude towards education.

Wangui (2012) noted the role of communities of origin of students in increasing school enrolment. She asserted that communities should be role models, support infrastructure development, mobilize parents to educate their children, have a positive attitude towards education, financially support schools and motivate pupils to achieve well.

Teachers were also seen as contributors to the increase in pupil numbers. Wangui (ibid.) shows that the contribution of teachers lies in their dedication to duty and providing guidance to students to achieve their goals, greater commitment and proper time management, taking teaching as a noble profession, maintaining the core value of education and enhancing performance, completing the syllabus so that students gain self-confidence, they motivated them, they were disciplined and they were role models. She added that school leadership, such as the school committee, is key to increasing school enrollment. This school committee can assist school management and therefore network with stakeholders, positively guide parents towards desired goals, provide leadership to parents and ensure school development, school standard setting and community sensitization among others.

2.3. Conceptual Framework

A conceptual framework is a model presentation in which a researcher shows the relationships between research variables in the form of charts, graphics or diagrams. From the conceptual framework, different factors influencing enrollment in school were presented.

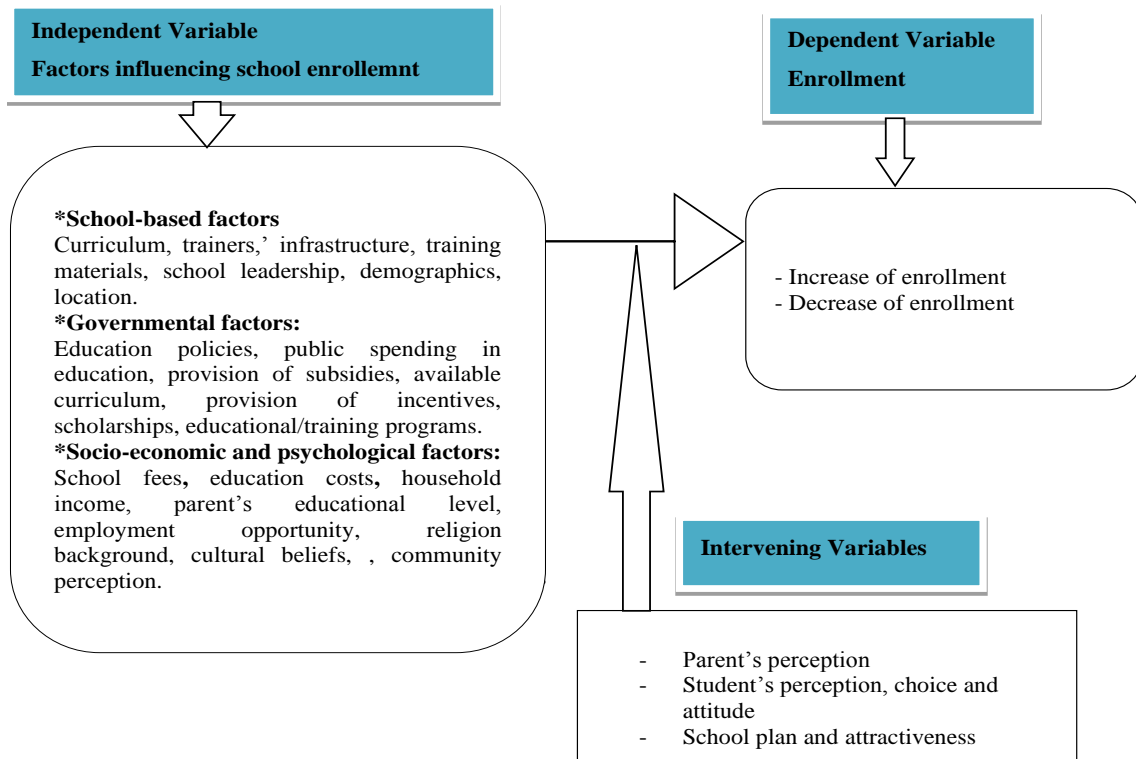


Figure 1 : Conceptual framework

Source: Research literature review

Chart 2.4 describes the relationship between variables. Factors affecting school attendance were conceptualized as independent variables, while school enrollment is the dependent variable and there are also intervening variables. A conceptual framework was designed to establish the relationship between the variables. The arrows used indicate the flow of relationships. The independent variable was operationalized by school factors (such as curriculum, trainers, infrastructure, training materials, school leadership, demographics, and location), Governmental factors (education policies, public spending in education, provision of subsidies, available curriculum, provision of incentives, scholarships, educational/training

programs), socio-economic and psychological factors (School fees, education costs, household income, parent's educational level, employment opportunity, religious background, culture, prioritization, and community perception were considered.

On the other hand, enrollment was considered with indicators like increase of school enrollment and decrease of school enrollment, whereas parent's perception, students' perception, choice and attitude, school plan and attractiveness, school leadership are intervening variables.

Based on human capital theory, which seeks to explain the phenomenon using economic point of views as conceived by Gary Backer (1964), human capital theory was used to conceptualize the enrollment in TVET Schools as one of the education processes. Rajabhat J. Sci. Humanit. Soc. Sci. 18 (2): 240-253, 2017 in Becker (1964) advanced that an individual investment in their schooling or training and anticipate that the knowledge, skill earned will be enhanced to their career advancement. The theory was used to explain how schools can improve their performance through training, education to enhance the capacity of working effectively in terms of enrollment.

2.4. Summary of Chapter Two

Based on the existing literature review, much information about factors influencing school enrollment and causes of low enrollment have been provided. Many studies also reported on a number of factors that may be considered in terms of school enrollment. However, there is a need to raise major factors and their determinants and analyze the causes of low enrollment in order to inform policy makers on how they can strategies to increase enrollment in TVET Schools of Rwanda. The chapter has also considered related literature of similar researches for comparison purposes. Research variables such as independent, dependent and intervening variables were identified by the researcher in order to

analyze major factors influencing enrollment in TVET Schools. Human capital theory, would be used to explain the phenomenon using economic point of views whereby how schools can improve their performance through training, education to enhance the capacity of working effectively in terms of enrollment. The reviewed literature would be based on during data collection and analysis to determine at which level these factors influence enrollment in TVET Schools and analysis of the causes in TVET schools. Next chapter indicates the methodologies that have been applied to conduct this research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0. Introduction

This chapter provides the methodology that was chosen to conduct the study. It indicates the research design, rationale, sources of data that were collected, sampling method and procedure, population and sample selection, data collection tools, data processing and analysis, and limitations of the study.

3.1. Research Approach

In conducting the research, an inductive research approach was used as a flexible methodology that allows the researcher to come up with quantitative and qualitative data as a way to guide the analysis and presentation of the research. Since the target respondents for the research are scattered and not very easy to reach, the narrative approach allowed the researcher to establish a friendly relationship with the respondents during data collection; and questionnaires were prepared to help the research participants provide sufficient and relevant and/or reliable information.

3.2. Research Design

In this study, the researcher used a convergent parallel mixed method design. According to Creswell (2013), a convergent parallel mixed methods design is a form of mixed methods design in which the researcher converges or combines quantitative and qualitative data to provide a comprehensive analysis of the research problem.

In this design, the researcher would typically collect both forms of data at roughly the same time and then integrate the information into an interpretation of the

overall results. In this study, data were collected from students, principals of selected schools, education policy makers, regulators and implementers at the central level to analyze the factors that influence enrollment in TVET schools. Descriptive research survey was also used to generate statistical information related to educational aspects to attract the interest of policy makers and educators.

3.3. Setting and Population Study

The study was conducted in Kigali City and Southern Province and focused on 3 TVET schools in Kigali City and 3 TVET Schools in Southern Province. Kigali City was selected as the focus of the study as an area having many and condensed TVET Schools and as a representative of the urban areas, while Southern Province was targeted to represent the rural areas that also have a big number of TVET respectively. This research was expected to reach out to policy maker, students, school head teacher and parents based on established criteria.

3.4. Sample size and Sampling Techniques

3.4.1. Sampling Techniques

This research used probability sampling techniques in sample size calculation to get the representative of the population where stratified sampling was used to get a sample from students while non-probability sampling was used in way out to reach the respondents where convenient sampling was used mainly for head teachers, parents and education policy makers.

Stratified and convenient sampling techniques were used to target two (2) most populated TVET schools and one (1) less enrolled school) in Kigali City and 3 TVET Schools (2 overpopulated schools and 1 less enrolled school) in Southern

Province. Cluster sampling was used to identify the population according to their geographical location. The sample is clustered in two locations: urban and rural area. The urban area is represented by Kigali City with 3 TVET schools whereas the rural area is represented by Southern Province with 3 TVET schools. Each of these school programs has been subjected to a random sampling aside. School managers and parents were purposively involved in the study. Students were also stratified and then, a random sample was drawn from each stratum.

3.4.2. Sample Size

3.4.2.1. Schools' sample size calculation

The sample size was determined considering the duration, cost of the study and an acceptable representative sample size. Thus, Slovin's formula was used to determine a tolerable sample size for students in a given population with a tolerance error where the standard of accuracy or 95% level of accuracy was kept high and a 5% margin of error was considered as the formula gives:

$$n = \frac{N}{1 + Ne^2}$$

Where: n is the sample size, N: is the population size from which the sample size was selected. e: is the margin or sampling error estimated at 5%.

Out of 344 TVET schools a representative sample should be 185 schools across the country with 49, 41, 37, 29 and 29 from Southern province, Western province, Eastern province, Northern and Kigali City respectively.

The population of the study is from both rural and urban areas. The researcher selected a representative province based on the number of TVET schools in each area. Across the country, the province with a higher number of TVET schools is South, West, East, North and Kigali city with 91; 75; 69; 55; and 54 respectively.

In rural areas, the Southern province was selected while in urban, Kigali city was selected to represent the country.

Out of 88,004 students from TVET schools across the country, sample size should be 398 students with 117; 77; 74; 69; and 60 from Southern province, Western province, Eastern province, Northern Province and Kigali City respectively.

Stratified random sampling were used to determine the number TVET Schools from both Kigali City and Southern Province that would be involved in this study. Focusing on the main criteria of the research, the respondents were purposively selected whereby 6 schools are selected 3 in Kigali City and 3 Southern province, 6 school head teachers, 4 parents and 3 policy makers.

The sample size for the research was 398 respondents while the reached sample was 302; 4 school leaders and 4 parents which translates that respondent's rate was at 89% which is a good indicator of findings that represent the population of the study.

3.5. Research Instruments and Data Collection Techniques

3.5.1. Research Instruments

A guiding questionnaire was used to obtain information from a random sample. The questionnaire contained demographic items related to the gender and age of the respondent. They included closed-ended and open-ended questions that asked respondents to indicate their views on factors affecting enrollment in TVET schools, causes of low enrollment.

3.5.2. Data Collection Techniques

Primary data were collected using written questionnaire answered immediately after short explanation with concerned respondents. The collected information focused on school-based, socio-economic and psychological factors influencing enrollment in TVET schools, causes of low enrollment in TVET schools and suggestion to stakeholders in enrollment for increasing enrollment in TVET schools including **NESA as education policy regulator, RTB as education policy implementer and MINEDUC as education policy maker**, school leaders, trainers and students.

3.5.2.1. Questionnaire Survey

Researcher administered questionnaires consisting of both closed and open-ended questions to research participants such as 6 School headteachers, 302 students. Open-ended questions were developed to give respondents room to provide their own views without being influenced by the researcher. On the other hand, closed-ended questions gave options to respondents and became good in collecting quantitative data, hence simplified data analysis. Questionnaires pre-testing were done to check wording, sequencing and lay out. Questions to be asked to the

respondents are related to research objectives and to some of the conceptual framework components like factors influencing enrollment in TVET Schools (school-based factors, socio-economic and psychological factors), perception on TVET Schools, causes of low enrollment in TVET schools, the role of educational stakeholders in improving enrollment and strategies/measures to increase enrollment in TVET Schools.

3.5.2.2. Documentary Review

Review of both published and unpublished books and reports, journals, conceptual materials, and websites that are related to the topic under study was carried. Documentary review enabled the researcher triangulate the gathered primary data from other methods of data collection in order to enrich the study.

3.6. Data Analysis Techniques

In data analysis techniques, both qualitative and quantitative methods were used to statistically describe and interpret research data. Since questionnaires survey were used in data collection, narrative analysis was used, where the collected data needs to be analyzed according to their size. Data from open-ended questions were analyzed by indicating the degree of responses. Expressions such as greater number, least number, to a large extent, to a small extent, most respondent comments, and most respondents were applied. This helped the researcher to get a general idea from different point of views about the researched subject. In some cases, respondents' comments were quoted. Responses from the structured questions were calculated into frequencies and percentages, summarized and tabulated for easy presentation, evaluation, analysis and interpretation. In this regard, the collected data were edited, coded and tabulated as meaningful information for easy interpretation and understanding. This was done through editing, coding and tabulation to assess their qualitative and quantitative accuracy.

The collected data were presented primarily through qualitative methods and then a thematic analysis was conducted for the qualitative data.

3.7. Ethical Consideration

Considering that the researcher expected to carry out a study with different people including public and private schools, children (students) where sometimes the respondents may be required to reveal one's privacy, this prompted the researcher to seek the University recommendation and schools' authorization to enable data collection. The researcher had also been prompted in designing questionnaires that would not hinder the flow of information from respondents. The gathered information was treated individually, and confidentiality has been ensured. The provided information was only supposed to strictly be used for the purpose of this research.

3.8. Research Validity and Reliability

This research with qualitative data that cannot be quantified, it is as tedious to establish research validity. However, since it cannot be quantified, but Validity also establishes the soundness of the methodology, sampling process, data analysis process, and the conclusion of the study. The main aspect that needs to be ensured is that the research ideas fall in line with the research objectives. To maintain the validity of the research, there is a need to understand the underlying needs of the research, the main process guidelines and the societal rules of ethical research. Through consensus among the individual and the society on how to establish the correctness and accuracy of the research, validity is assured.

Quantitative research includes reliability measures where the researcher proved that the process and the results have replicable outcome. The reliability was assured through the use of comprehensive data as well as the use of inclusive of different cases. This helped the researcher to detect trusted data sourcing, data

validation and data presentation process of the research, as well as support the claim of reliability in terms of form and context.

Before the administration of questionnaires and interview guides to respondents, a pilot study was done in order to ensure the instrument validity and reliability. The testing of the instrument was done to verify clarity of questions. S4 students and their school managers are relevant subjects of the research, to administer a questionnaire while interviews were addressed to RTB and NESAC officials as education policy regulator and implementer respectively. Relevant documents have been obtained from the schools. A pilot study was conducted at Saint Kizito TVET school as one of the schools where the research had been conducted. During the pre-test, 15 respondents were involved. This pilot study helped in detecting any major challenges that are likely to result from research instrument applied. The major challenge faced during the pilot study was the availability of policy makers for interview, the reason for, the researcher changed the proposed interview into questionnaire for policy makers and parents.

3.9. Summary of Chapter Three

The chapter dealt with introducing the methodology of the study where the research approach, design, population, sample size, sampling techniques and instruments, data collection and analysis techniques, ethical considerations were identified. It also provided the validity and reliability of the research. The following chapter deals with the presentation, analysis and interpretation of data.

CHAPTER FOUR DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0. Introduction

This chapter illustrates findings from the survey conducted on students from TVET schools, TVET school head teachers and education policy makers that are concerned with enrollment in TVET. It also provides analysis and interpretation of findings.

4.1. Data presentation and interpretation

4.1.1 Demographic characteristics of respondents

Demographic characteristics of respondents provide information about gender, age group, location of respondents, *ubudehe* categories for students and profile for parents, school head teachers and education policy makers who are involved in this research.

4.1.1. Characteristics of students

The figure below indicates the gender related information during the research.

4.1.1.1. Gender of students

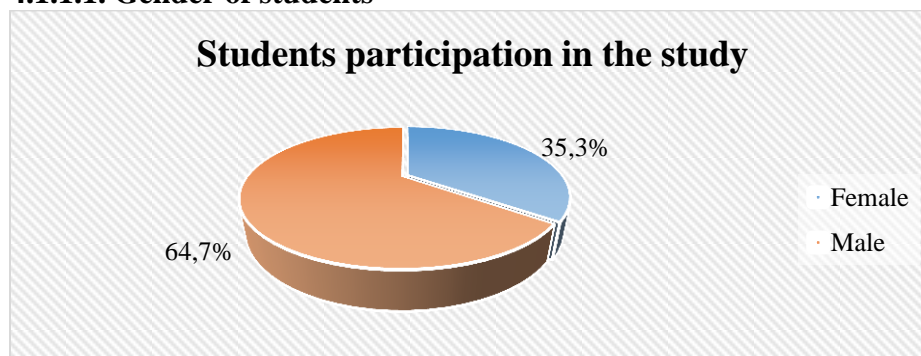


Figure 2: Gender of students

Source: Primary data, July 2022

Figure 2 indicated that the gender of students who participated in the research are distributed in such a way that 64.7% of them were male while 35.3% were female. The research is therefore gender sensitive as it involved both male and female.

4.1.1.2. Age group of students

The figure below provided information on the age range of respondents among TVET students who participated in the research.

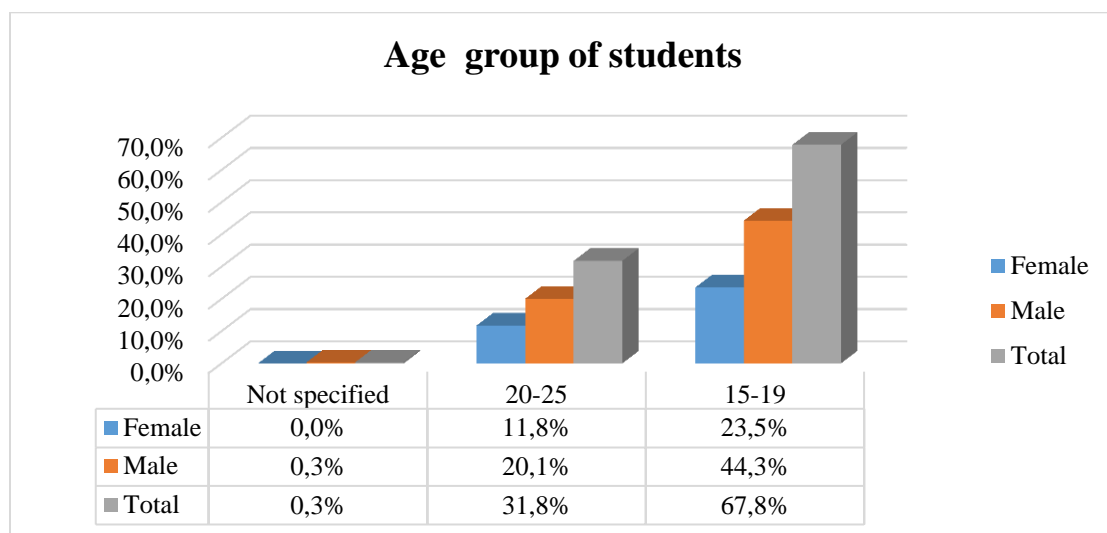


Figure 3: Age group of students

Source: Primary data, July 2022

Figure 3 indicated that the age group of students who responded to the research are 67.8%;31.8% and 0.3% and they belong to the age range of 15-19; 20-25 and not specified respectively. The research results indicated that most TVET students are in a good range of learning age.

4.1.1.3. Students' province of residence

The below figure provides information related to the province of residence for students who participated in the research.

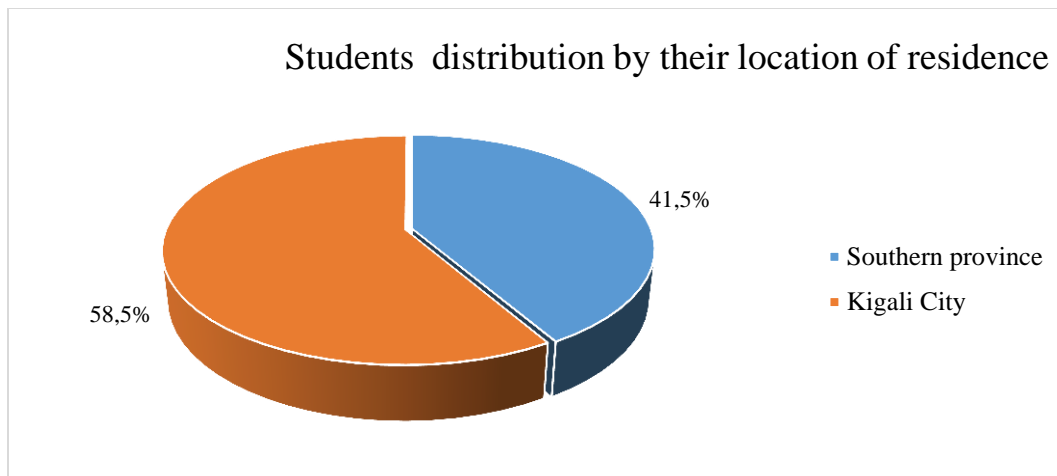


Figure 4: Respondents' Province

Source: Primary data, July 2022

Figure 4 showed that during research process, the sampled provinces are represented and gender aspect is considered. Kigali City is represented by 58.5% with 41.9% male and 16.6% female and Southern province is represented by 41.5% with 22.8% male and 18.7 % female.

The results of the results indicated that both female and male students from TVET schools participated in the research and this translates that the research is gender sensitive in a way that all students are represented by a good number of students from rural and urban areas.

4.1.1.4. Distribution of Students by Ubudehe category

The figure below presents information about Ubudehe categories of respondents of the research.

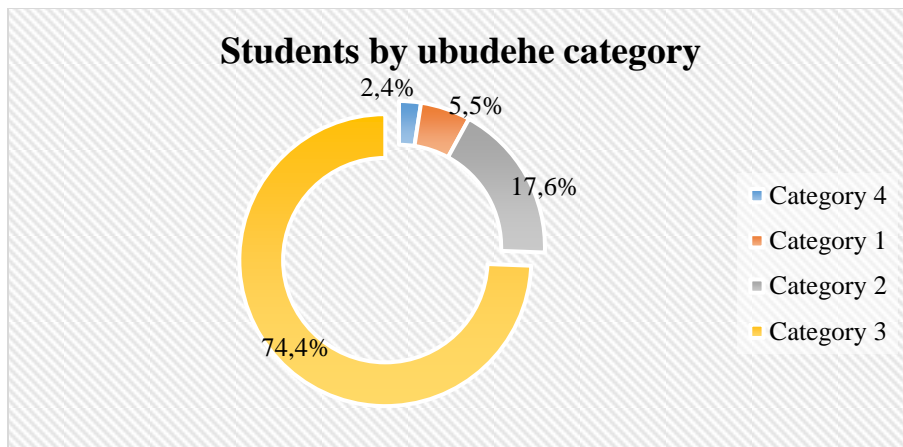


Figure 5: Ubudehe category of students

Source: Primary data, July 2022

Figure 5 indicated that students who responded to the research are distributed in a such a way that 74.4%; 17.6%; 5.5% and 2.4% are in category 3;2;1and 4 respectively.

The study findings revealed that TVET schools' students mostly belong in category 3 of *Ubudehe* (74.4%) which implies that they are from families with moderately low income which can lower the enrollment in TVET schools.

4.1.2. Stakeholders' characteristics

4.1.2.1. Categories and gender of stakeholders

The figure below indicates gender of TVET stakeholders that participated in the study.

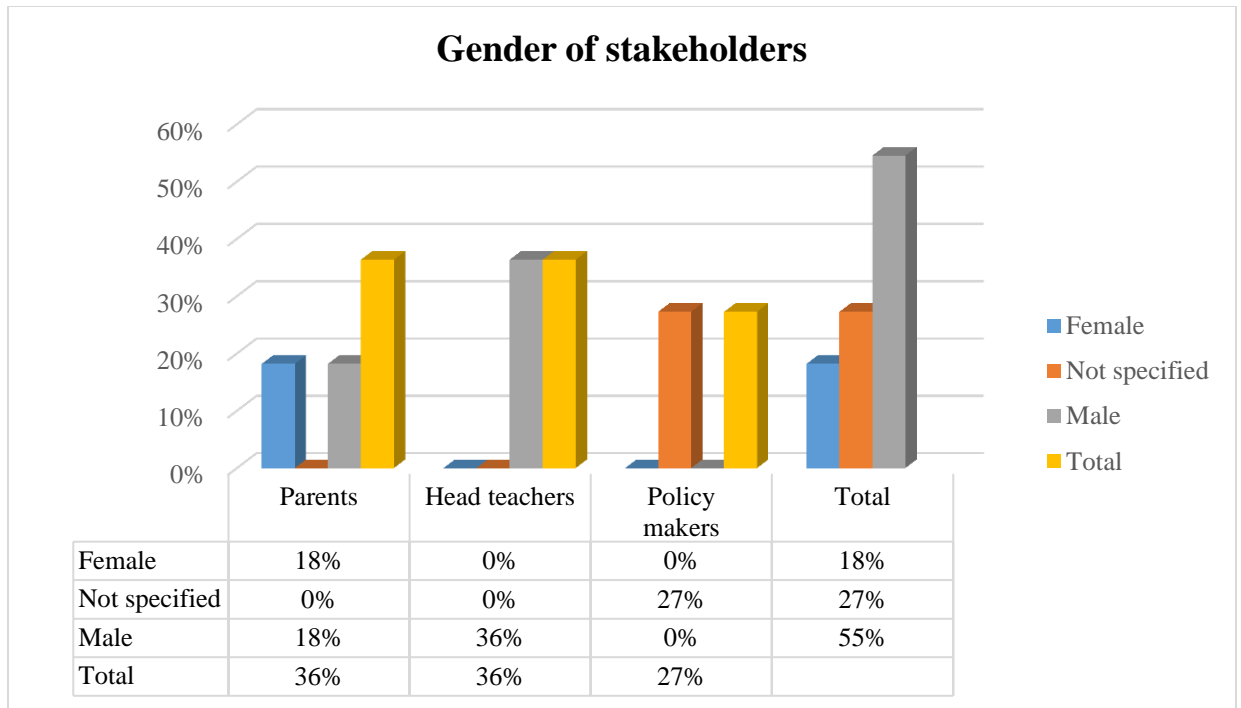


Figure 6: Categories and gender of stakeholders

Source: Primary data, July 2022

Figure 6 indicated that 55% of stakeholders who participated in the research are male while other 18% of them are female whereas 27% of them did not want to reveal their gender. It also indicates that 36% are parents and head teachers, and the rest of 27% of the respondents are education policy makers respectively.

4.1.2.2. Education level of parent

The study collected background data in order to ensure the authenticity of the respondent with the study area and study variables since their characteristics can influence the nature of participation and opinion.

Figure 7: Education level of parent

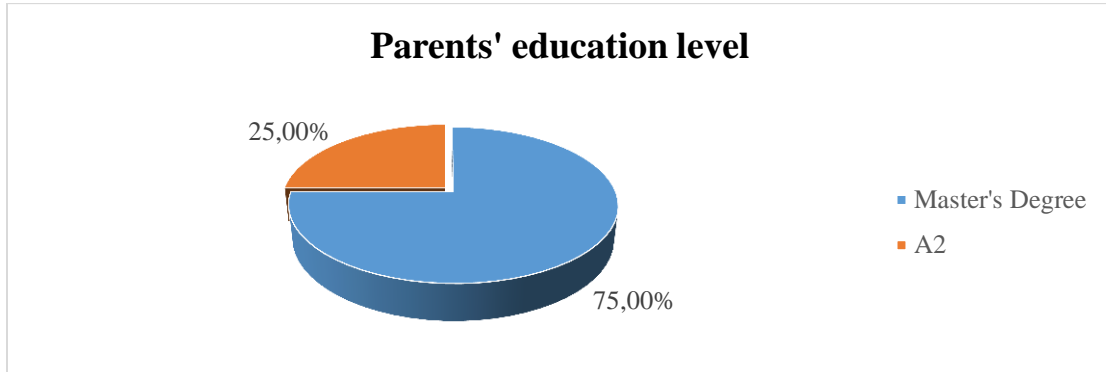


Figure 6: Education level of parent

Source: Primary data, July 2022

Figure 7 gives the information on the education background of parents who responded to the research. It shows that 75% of parents as research responded attained master's degree and other 25% of parents have A2 certificate. This gives the reality on confidentiality and relevancy of the information they give on TVET and education in general.

4.1.3. Trainers' characteristics

4.1.3.1. Trainers' education qualification

The figure below indicates the qualification of respondents' schools' trainers. It gives the information on the qualifications of the interviewed school in terms of training staff.

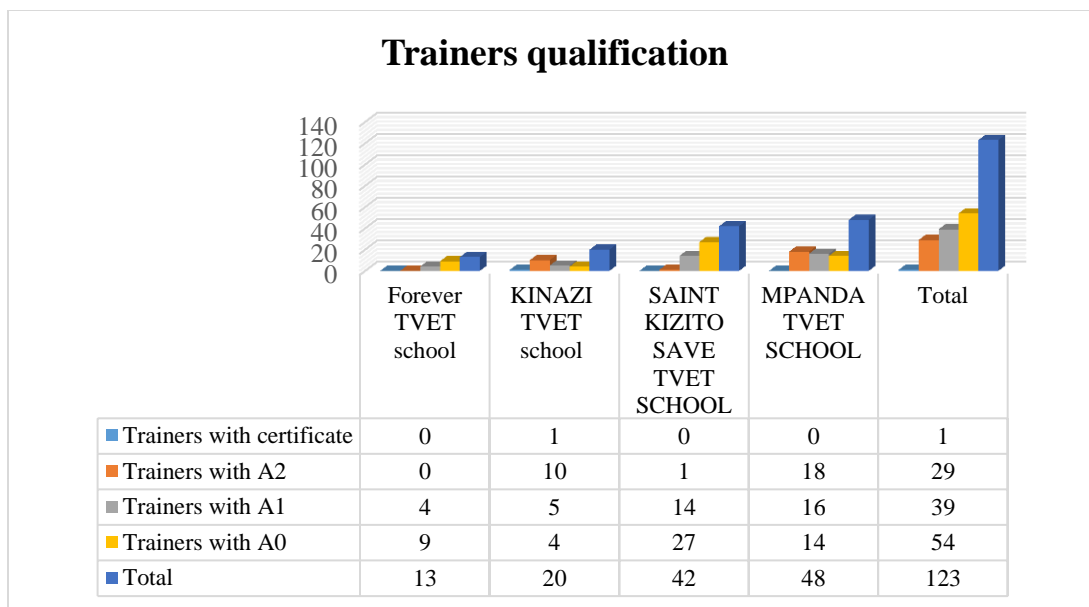


Figure 7: Trainers’ qualification

Source: Primary data, July 2022

Figure 8 presented information related to TVET Trainers’ qualification especially TVET Schools that were involved in the research. The distribution of training staff according to their qualification was provided as follows: MPANDA TVET school, SAINT KIZITO SAVE TVET SCHOOL, KINAZI TVET school and FOREVER TVET school use 48 training staff (18 with A2, 16 with A1 and 14 with A0); 42 trainers (27 with A0; 14 with A1; and 18 with 18), 20 trainers (10 with A2; 5 with A1; 4 with A0 and 1 with certificate) and 13 trainers (9 with A0 and 4 with A1) respectively. The number of training staff depends on the number of trades taught in TVET school in general.

4.2. Understanding of TVET

To analyze the factors influencing enrollment and causes of low enrollment in TVET Schools in Rwanda, the analysis of questions related to the understanding

of TVET was deemed necessary. Students, parents, TVET School head teachers provided their understanding of TVET.

4.2.1. Students' understanding of TVET

Most of the students who participated in the research provided their point of views on how they understand TVET as follows:

“TVET is understood as Technical Training and Vocational Education that provide hands on skills. These skills enable the students to compute on the labor market or employ themselves.”

From this views, it is clear that students who participated in the research really understand what TVET means.

4.2.2. Parents' understanding of TVET

To analyze the causes of low enrollment in TVET Schools, parents were requested to furnish their understanding of TVET in general. A big number of parents who participated in the research understand TVET as follows:

“TVET is understood as Technical and Vocational education where students acquire skills that help to immediately be employed.”

Few parents understand TVET as:

“Education of last resort, where candidates who failed in other disciplines can run for.” From this information, parents understand the meaning and importance of TVET.

4.2.3. School head teachers' understanding of TVET

In analyzing factors influencing enrollment and causes of low enrollment in TVET schools in Rwanda, TVET Schools Head teachers were requested to give their understanding of TVET. Most of the head teachers confirmed that “*TVET is Technical and Vocational Education and Training that provides hands on skills to the students to enable them compete to labor market either by being employed or by creating jobs by themselves.*” From this confirmation, it is clear that head teachers understand what TVET really is.

4.3. Enrollment in TVET

4.3.1 Understanding of enrollment

In analyzing factors influencing enrollment and causes of low enrollment in TVET schools in Rwanda, TVET Schools Head teachers and students were requested to give the information related to enrollment in TVET.

The information provided by all research respondents (head teachers and students) revealed that they view enrollment as admission, enlistment, acceptance, accession or entrance. This reveals that the enrolment is all about being admitted in academia or any services.

4.3.2. School enrollment capacity

To analyze factors influencing enrollment and causes of low enrollment in TVET Schools, respondents were requested to provide their school enrollment capacity. The researcher considered school head teachers in TVET schools as respondents of the questionnaire to respond to research objectives as the key contributors to enrollment. The school head teachers provided information on enrollment capacity and enrollment at level 3 for 200-2021 academic year for their respective

schools. The figure below gives the information on enrollment capacity in TVET schools responded to the research.

The figure below gives every school enrollment capacity via schools' responses to the research.

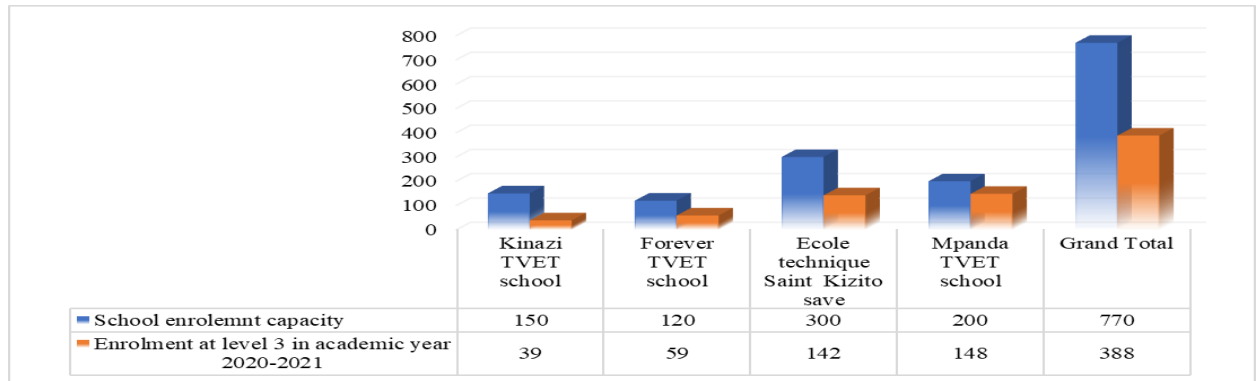


Figure 8: Schools' enrolment capacity vs enrolled students

Source: Primary data, July 2022

The figure 9 provided information related to school enrollment capacity and recent enrollment in level 3. Mpanda TVET School, Saint Kizito Save TVET School, Kinazi TVET School, Forever TVET School has the capacity to enroll 200; 300; 150; and 120 students respectively. The recent enrolled in level 3 shows 148; 142; 39 and 59 students respectively. It is clear that most schools have the capacity to enroll students but the number of students enrolled is still very low. In general, TVET schools by 2020-2021 at level 3 were underutilized in terms of capacity, this needs special attention to attract students to TVET via government interventions and student encouragement.

4.3.3 School statistical enrollment trends in three consecutive school years.

To respond to research objectives, statistical enrollment in three consecutive school years (2018-2021) were requested. The information in the below figure furnishes statistical enrollment.

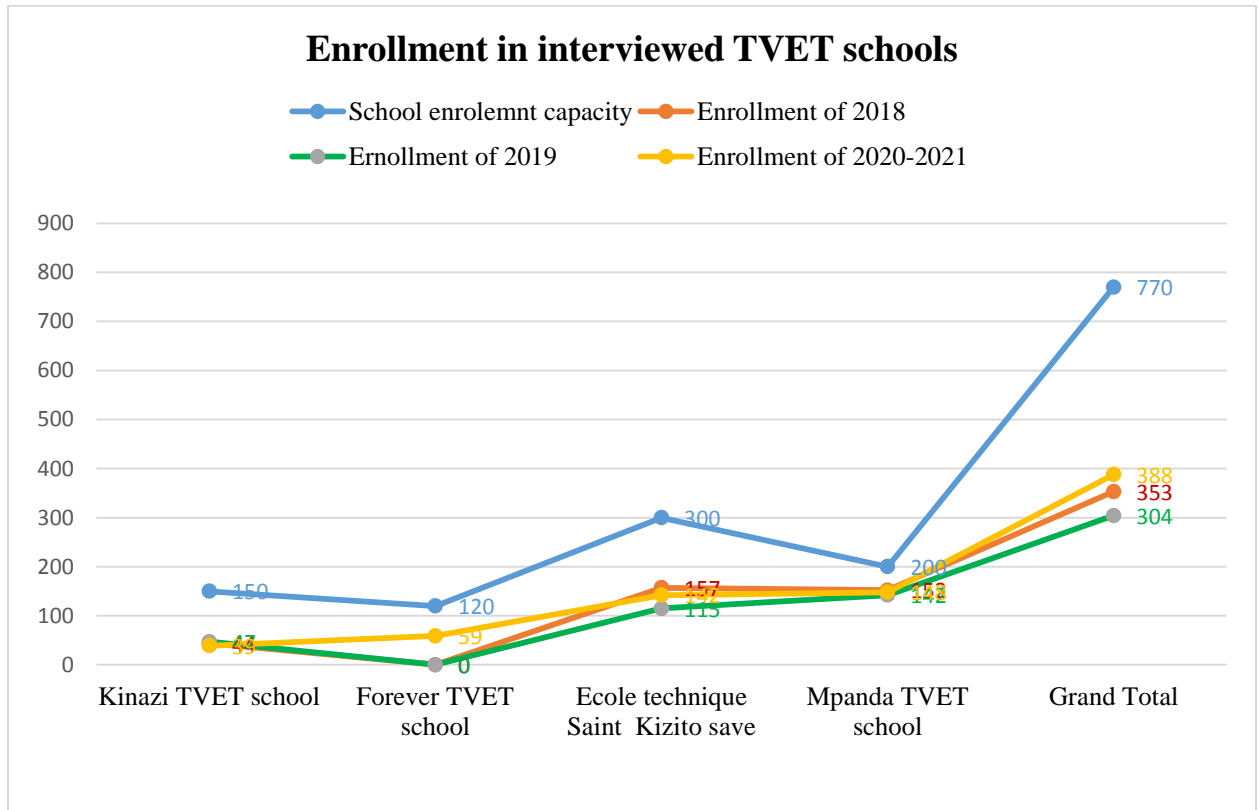


Figure 9: Enrollment in interviewed TVET schools.

Source: Primary data, July 2022

Figure 10 indicated recent enrollment via schools' responses to the research compared to their enrollment capacity. Based on three consecutive school years, Mpanda TVET SCHOOL, Siant Kizito Save TVET, Kinazi TVET and Forever TVET School enrolled (142; 152;122); (141: 172; 157); (39; 43) and (0; 59)

respectively. It is clear that all the schools that were involved in the research indicated that they have the highest capacity to enroll students but the number of students enrolled is still very low. In general, TVET schools by 2020-2021 at level 3 were underutilized in terms of capacity. This requires special attention to attract students to TVET via government interventions and student encouragement.

4.3.4. Trades enrollment in three consecutive years up to 2020-2021 school year

To analyze factors influencing enrollment and causes of low enrollment in TVET Schools, the analysis of enrollment per trades in three consecutive school years up to 2020-2021. The figure below indicates the enrollment by training program from 2017 to 2020-2021 school year.

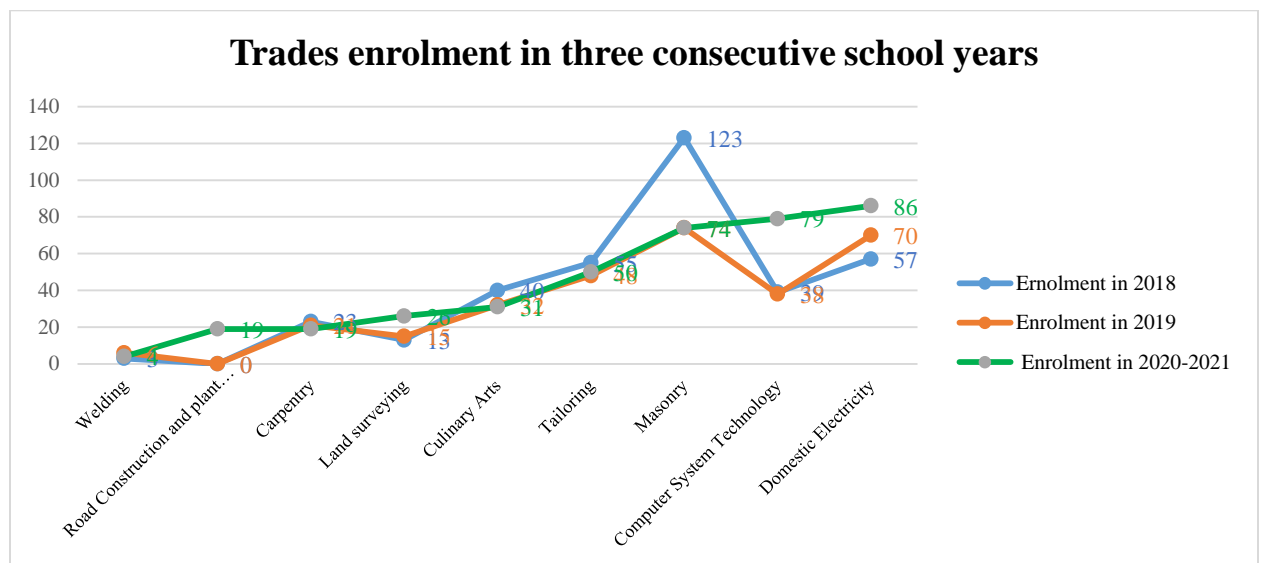


Figure 10: Trades enrollment in three consecutive school years

Source: Primary data, July 2022

Figure 11 provided the number of students enrolled according to training programs such as welding, road construction, carpentry, land surveying, culinary arts, tailoring, masonry, computer system technology, and domestic electricity. The statistics indicated that increment and decreased of enrollment were based on the trade where in 2018, trade of Welding had a low number of students while Masonry was the one with a high number of enrolled students. In the school year of 2019, there was a drop in number of students enrolled compared to previous year but still Masonry was the one with a higher number of enrolled students and Road Construction was the least with a low number of enrolled students.

Research results found out that during the school year of 2020-2021, the number of enrolled students increased where many trades like Masonry, Computer system Technology and Domestic Electricity got a higher number of students. This translates that the enrollment in a given trade is dependent on speculation of the local market where students believe they could be employed or self-employed.

4.4. Factors influencing enrollment in TVET Schools

To respond to research objectives, the analysis of factors influencing enrollment and the causes of low enrollment in TVET Schools were considered.

4.4.1 School based factors influencing enrollment in TVET schools

The assessed factors that influence enrollment in TVET are grouped into 2 categories such as learning factors which are factors directly linked to learning and external factors defined as school based factors but not directly linked learning. Learning factors considered to be assessed during the research were curriculum content, the availability of text books, trainers' capacity, trainer's insufficiency, workshop status, training materials and equipment availability and the availability training consumables while external factors were school

leadership, school location, boarding facilities and access to Government scholarship. Both students and head teachers provided their level of appreciation of school-based factors influencing enrollment. The extent to which the factors are appreciated can be translated to the cause of the low enrollment.

4.4.1.1 Learning factors

The figure below gives the information provided by students on school-based factors specifically learning factors.

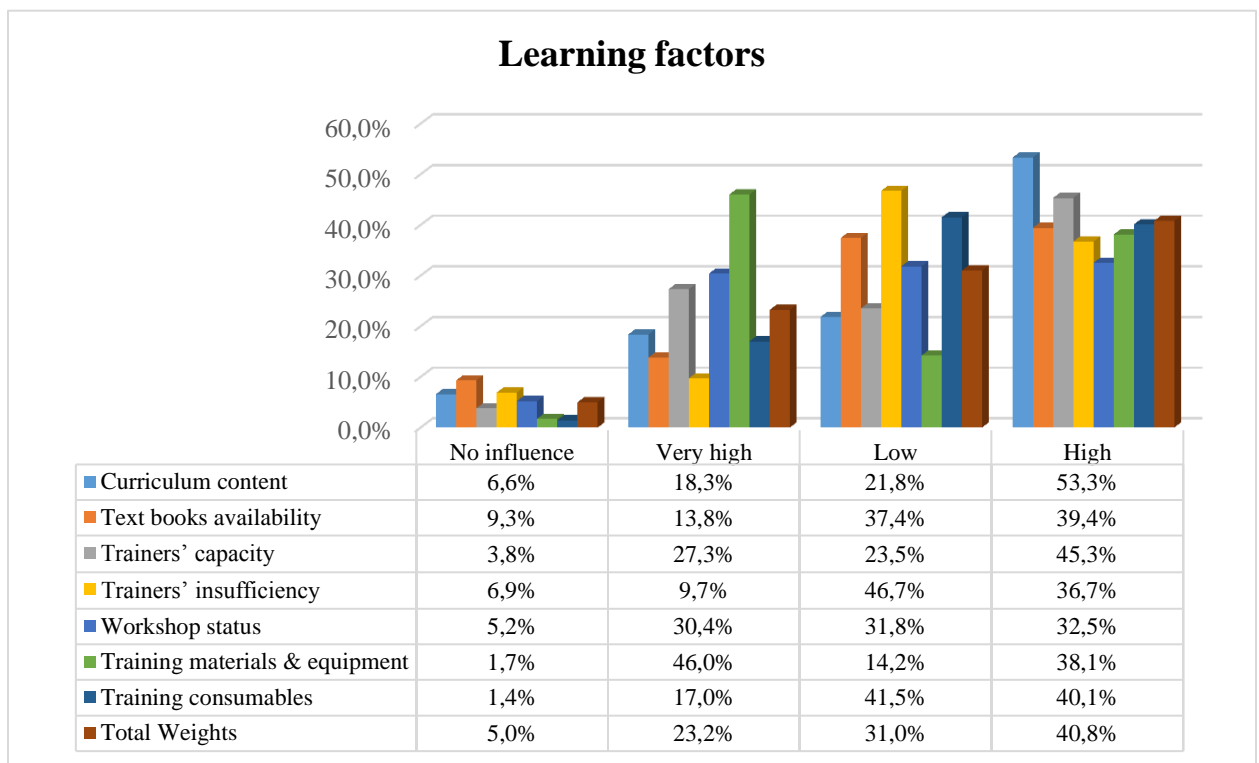


Figure 11: School based factors influencing enrollment: Learning factors

Source: Primary data, July 2022

Figure 12 highlighted learning factors that influence enrollment in TVET Schools. From respondents' appreciation on the extent to which learning factors influences

enrollment; it was reported that the first factor which is curriculum content influences enrollment in TVET schools at 53.3%; 21.8%; 18.3% and 6.6 % highly, lowly, very highly and not at all respectively. The influence of textbooks availability in TVET schools' enrollment is at 39.4%; 37.4%; 13.8% and 9.3% highly, lowly, very highly and not at all respectively. The extent to which trainers' capacity influences enrollment in TVET schools are stated as highly, very highly, lowly and not at all at 45.3%; 27.3%; 23.5% and 3.8% respectively. Trainers' insufficiency influences enrollment in TVET schools at 46.7%; 36.7%; 9.7% and 6.9 % lowly, highly, very highly, not at all respectively.

It is evident that trainer's insufficiency has a moderate impact on the enrollment in TVET schools at the rate of 83.2%, the extent to which workshop status influences enrollment was reported as highly, lowly, very highly and not at all influences at 32.5%; 31.8%; 30.4% and 5.2% respectively, the training materials and equipment availability influence enrollment in TVET schools at 46.0%; 38.1%; 14.2% and 1.7 % as very highly, highly, lowly and no at all respectively, whereas training consumables availability influences enrollment in TVET schools at 41.5.0%; 40.1%;17.0% and 1.4 % lowly, highly, very highly, and no at all respectively.

The table below indicates the level of appreciation of school head teachers on school-based factors influencing enrollment in TVET schools.

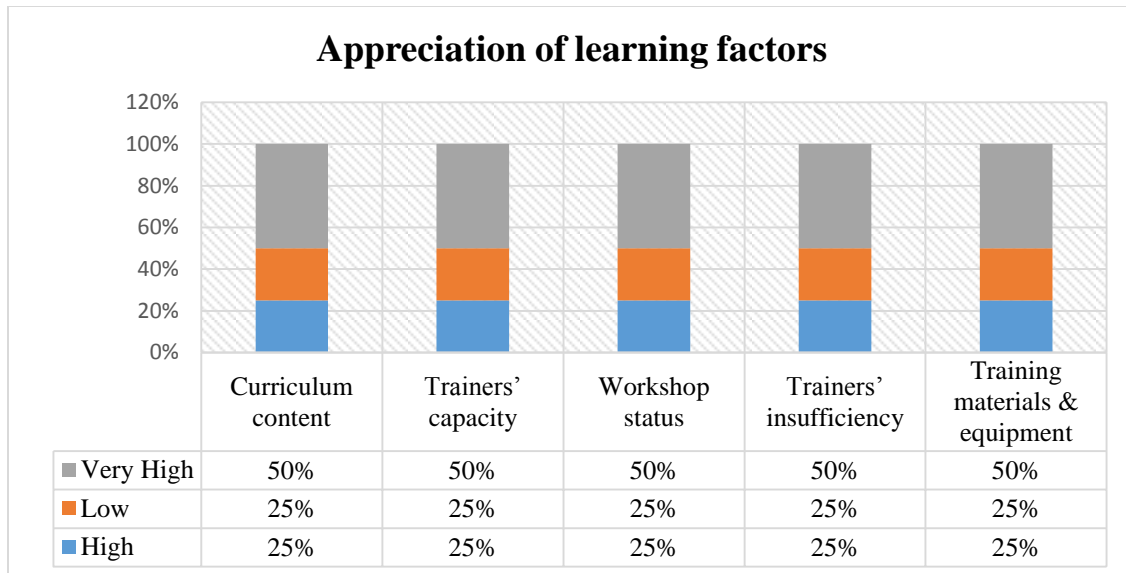


Figure 12: Head teachers' Level of appreciation on school-based factors

Source: Primary data, July 2022

From figure 13, school head teachers indicated their perception on curriculum content, trainers' capacity, workshop status, trainers' insufficiency, training materials and equipment availability, school leadership, training consumables availability, school location, boarding facilities as school factors that can influence enrollment in TVET schools. As it is indicated in the above figure, respondents appreciated the said components at 75%.

4.4.1.2 External factors

Research participants (students) provided their level of appreciation of boarding facilities as school-based factors influencing enrollment. Their level of appreciation was provided in the figure below.

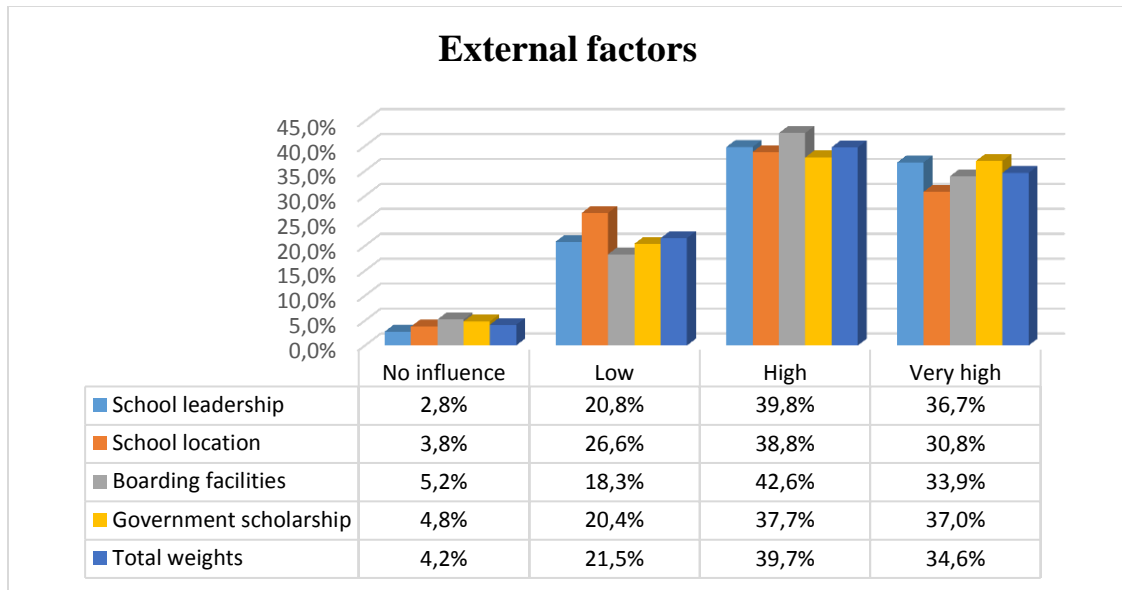


Figure 13: Students’ level of appreciation on external factors

Source: Primary data, July 2022

Figure 14 indicated that external factors were appreciated by students as follows: School leadership was appreciated at 2.8%; 20.8%; 39.9% and 36.7% as no influence, low, high and very high. School location was appreciated at 3.8%; 26.6%; 38.8% and 30.8% as no influence, low; high and very high respectively. Boarding facilities was appreciated at 5.2%; 18.3%; 42.6% and 33.9% as no influence, low, high and very high respectively while government scholarship was ranked at 4.8%; 20.4%; 37.7% and 37.0% as no influence, low, high and very high respectively. It is evident that most of respondents 39.7% and 34.6%) confirmed that external facilities impact school enrollment.

Head teachers also provided the level of appreciation of external factors as presented in the figure below.

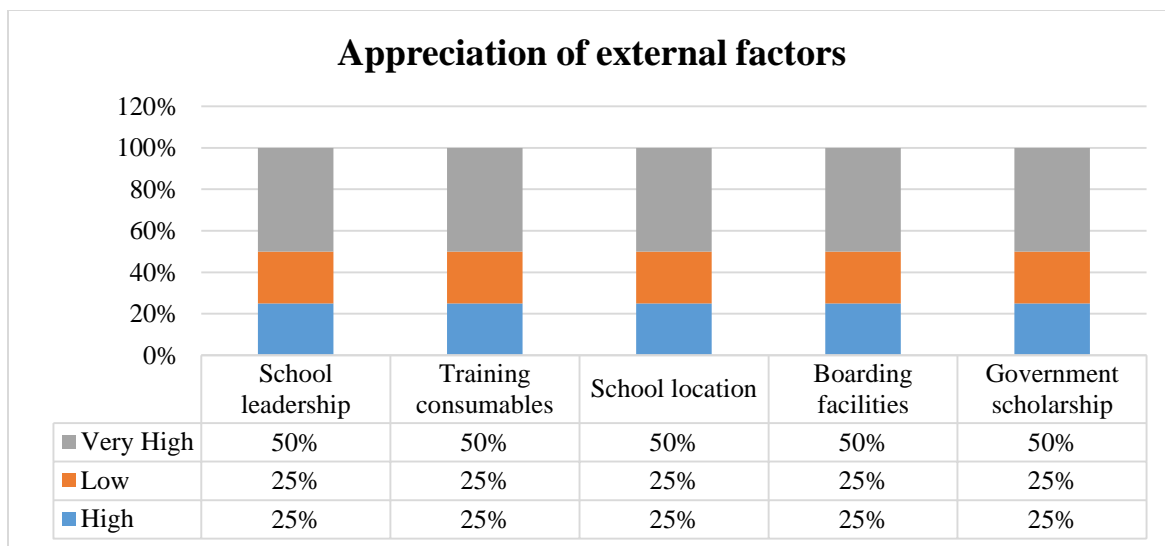


Figure 14: Appreciation of external factors by head teachers

Source: Primary data, July 2022

Using the information provided by figure 15, head teachers appreciated external facilities such as school leadership, school location, boarding facilities, and access to government scholarship as factors that bring an impact on enrollment in TVET schools as indicated by 50% which translates a very high level of appreciation compared to 25% of low appreciation.

Head teachers commented on school-based factors that could impact the enrollment in TVET schools. They said that the lack of information about benefits of TVET for community could impact enrollment in TVET combined with school perception on performance by the public.

4.4.2. Socio-economic and psychological factors influencing enrollment in TVET schools

To critically determine the socio-economic and psychological factors that influence the enrollment in TVET schools, respondents were requested to state

their views to which extent socio-economic and psychological factors, like school fees, additional cost to school fees, family income, family conflict, parents educational level, negative perception about TVET and available employment opportunities as factors influence enrollment in TVET schools.

The figure below gives information on the appreciation of socio-economic and psychological factors on their influence to enrollment.

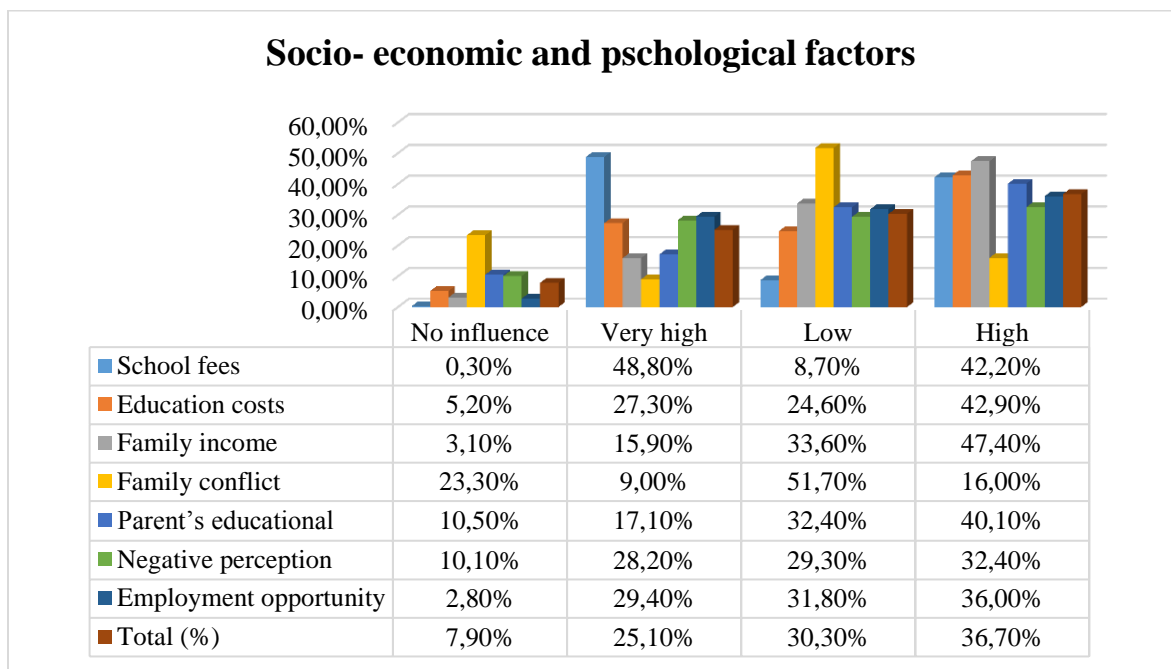


Figure 15: Students' appreciation on Socio-economic and psychological factors influencing enrollment

Source: Primary data, July 2022

Figure 16 indicated the level of appreciation of socio-economic and psychological factors on their influence on enrollment. Information provided indicate that school fees influence enrollment in TVET schools at 48.8%; 42.2%;8.7% and 0.3% as very highly, highly, lowly and not at all respectively. Education costs influence

enrollment in TVET schools at 42.9%; 27.3%; 24.6% and 5.2% which is translated highly, very highly, lowly and not at all respectively.

Family income influences enrollment in TVET schools as reported by 47.4%; 33.6%; 15.9% and 3.1% as highly, lowly, very highly and not at all respectively. Family conflict influences enrollment in TVET schools at 51.7%; 23.3%; 16.0.8% and 9.0 % as lowly, not at all, very highly and highly respectively. Parents' educational level influences enrollment in TVET schools as reported by 40.1%;32.4%; 17.1% and 10.5% as highly, lowly, very highly and not at all respectively; negative perceptions about TVET influence enrollment in TVET schools at 32%; 29%; 28% and 10% as highly, lowly, very highly and not at all, not at all respectively; employment opportunities influence enrollment in TVET schools as confirmed by 36.0%%, 31.8%, 29.4% and 2.8% as lowly, highly, very highly and not at all respectively.

Research findings found out that all socio-economic and psychological factors (School fees, Education costs, Family income, Family conflict, Parent's educational level, Negative perception about TVET and Available Employment opportunity) reported by 92.1% of respondents have a higher influence on enrollment in TVET which means that these factors contribute to low enrollment.

Head teachers' appreciation on socio-economic and psychological factors

The table below indicates the level of appreciation of school head teachers on socio-economic and psychological factors influencing enrollment in TVET schools.

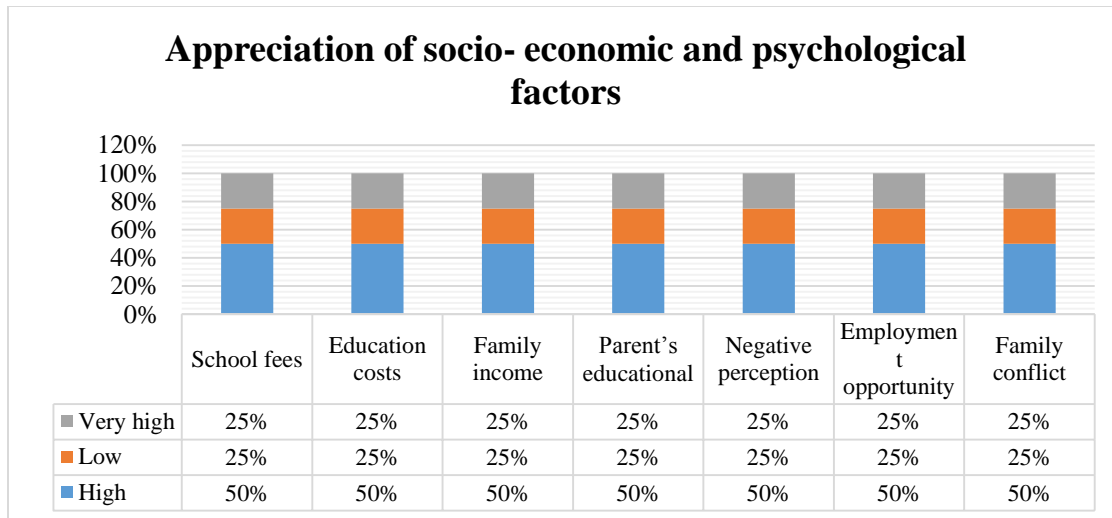


Figure 16: Level of appreciation on socio-economic and psychological factors by head teachers

Source: Primary data, July 2022

The figure 17 above gives information on the level of appreciation of school head teachers about school fees, education costs, family income, parent's educational level, negative perception about TVET, available employment opportunity and family conflict as factors that could influence enrollment in TVET schools. The level of appreciation from respondents is at 75% indicating that all the above factors have a positive impact of the increase or lowering the enrollment rate. Those indicated factors should be taken into consideration during the TVET planning phase to improve the quality of skills gained from schools to the labor market. Head teachers

Respondents also highlighted other TVET enrolment factors. Stakeholders argued that TVET is also stimulated by different factors including country development and industrialization, unemployment rate, lack of relevant information about

TVET for some parents in community, lack of information and peer learning and pressure, said by stakeholder during the interview.

The parents on the factors influencing the enrollment in TVET schools, they asserted that the main factors to influence the enrollment are like limited skills and limited information to join universities, high school fees to good schools, the cost of education, the quality of schools in terms of resources (staff, workshops and equipment, etc). Others factors may be linked to job market opportunity for TVET graduate, TVET support to trainees to gain hands on skills with appropriate knowledge and right attitude in order to compete on labor market”.

4.5.3 Causes of low enrollment in TVET Schools

To analyze the factors influencing school enrollment in TVET Schools, research participants were requested to highlight the striking causes of low enrollment in their schools. Students and Head teachers provided their responses on the main causes of low enrollment.

4.5.3.1. Students’ views on the causes of low enrollment.

Students were requested to provide their point of views on the main causes of low enrollment in TVET schools based on the statistics related to school enrollment capacity compared to enrollment during three consecutive school years. A good number of students pointed out *“the main causes of low school enrollment are school fees which are higher than anyone cannot afford, additional education costs, added to the lack of competent trainers, inadequate training materials and equipment to training programs, insufficiency of hands-on skills (practicals) in schools and lack of TVET awareness and its benefits, discouragement due to the absence of career progression/path.”*

4.5.3.2 Head teachers' views on the causes of school enrollment

To respond to research objectives related to the causes of low enrollment in TVET Schools of Rwanda, and after considering every school statistical enrollment in three consecutive school years, compared to school enrollment capacity, Head teachers who participated in the research were requested to state the main causes of such low enrollment. Among the many responses which were provided include; lack of information on TVET and its benefits, community misconception, higher education cost on TVET, and lack of career guidance for O'level leavers, absence of standards on training equipment and materials, lack of skilled training responding to new technology, inadequate marketing strategies and insufficiency of financial capacity among training providers.

4.5.4 Strategies to increase TVET enrollment

Based on the statistics related to factors influencing enrollment and finding that schools have enrollment a low number compared to their enrollment capacity as captured in sections 4.3.2 and 4.3.3, research participants were requested to state strategies that can enable TVET schools improve enrollment. The head teachers who were concerned with this question indicated that the strategies to increase enrollment at level 3 are as follows:

“TVET schools should advertise their work in the community, marketing a school to nearby 9YBE schools using school yearly open day and social media platforms and increase or always improve school facilities to make school more attractive to the public”.

Education Policymakers talked on strategies adopted by the government to mitigate the challenge of low enrollment experience and aired that increasing awareness campaign to enroll in TVET and explain the advantages of joining

TVET, schools have to provide skills to students for responding to labor market needs, increase public-private partnership aiming at facilitating industrial attachment, promoting creation of employment for TVET leavers and thus increasing investment in TVET to make it more attractive.

4.5.4 Suggestions to stakeholders for increasing enrollment in TVET schools

To respond to research objectives, research participants were requested to provide suggestions as measures to devise the increase of enrollment in TVET schools. Suggestions were provided according to stakeholders and all indicated the role of each education stakeholder in increasing enrollment.

4.5.4.1 Suggestions provided by students

The students who participated in the research suggest that NESAC should increase enrollment in TVET schools by accepting the choice of O' level students, to advertise how TVET is beneficial and encourage youth to join TVET, to supervise teachers, improve curriculum, allocating students in the TVET schools as per their choice, to regularly assess all schools for better performance through learning facilities and equipment, to link labor market needs and skills provided to students, to conduct regular inspection on TVET schools, to promote competition in TVET schools through radios and TVs. This will lead TVET sector to a great performance through the production of qualified students.

The students continued to indicate the task of RTB in the journey of sharpening sector of TVET in Rwanda. They indicated that RTB has to promote TVET via advertisement on social media as sources of information with easy access for Rwandan youth and parents. It has to avail text books and equipment, to reduce school fees, hire skilled trainers and increase practicals. In the way of TVET strengthening, RTB should have a specific plan for improving curriculum,

trainers' capacity building, to provide ICT facilities, recent technology in TVET schools, increase critical thinking about leadership in TVET school leaders, increase the number of TVET schools and boarding TVET schools across the country or have TVET schools in each sector like 12years basic education, strengthen internet connectivity in TVET schools. This will lead to high quality of trainees.

Students also suggested to the Ministry of Education as part of stakeholders in the research that that the ministry is obliged to advocate for TVET schools for improving learning facilities including dormitories, construction of additional TVET Schools, equip all TVET schools at good standard. MINEDUC needs to advocate for technical education to have a room and chance of continuing studies at the highest level of education like PHD for best performers. It has to advocate for TVET scholarship affordable to competent students with lower financial means, avail books, capacitate teacher. As it has been discussed in the findings, TVET school leadership and financial capacity of TVET schools is a crucial factor for enrollment thus they have to be sharpened and adjusted. MINEDUC should increase number of programs in polytechnics to give high chance of selection for trainees and this attract more students to register in TVET sector. The students suggested that parents should change mindset about TVET, encourage their children to join TVET, let children make their preference and help children to develop their career path.

In order to increase enrollment in TVET Schools, students suggested that teachers should be committed to the work, provide career guidance to students, develop their skills, to teach all modules by theory and practices. They continued by highlighting that some teachers have to eradicate the culture of discouraging O' level students to join TVET, help their children during orientation and give them freedom of choice”.

They also highlighted that students themselves should encourage others to join TVET, share information about all options/combinations before trades and options choice, try their best to be informed about TVET and labor market and are advised to use their skills and market opportunities especially for TVET”.

4.5.4.2 Suggestions provided by parents

The researcher considered views of parents of students in TVET schools as respondents to the questionnaire in order to provide their points of view regarding research objectives as the stakeholder in enrollment increment. The researcher analyzed factors influencing enrollment in TVET schools and parents’ suggestion to stakeholders for increasing enrollment in TVET schools.

The parents in this study revealed the reasons hindering them to send their children to enroll in a given combination. They expressed that their wish was to increase chances of getting a job via a hand on skills that can enable children to go for work immediately after graduation. *“Many of us wish to see children becoming technicians, professionals, leaders and/or holding high degrees like PhD and others. The only limitation is that TVET school leavers students are constrained to further their studies in TVET to increase their competence and are limited to polytechnic only”*. argued parents a big number of parents.

Interviewed parents addressed their suggestions to the Ministry of Education as policymaker to increase enrollment in TVET Schools. They suggested that the Ministry of education has to build and well-equip workshops (1 model TVET school for each sector), provide continuous professional development to the trainers. They suggested to NESAC to provide re-accreditation to the existing TVET schools because some of them may sometimes fall below the required minimum standards. It has to encourage private sectors and religious people (abanyamadini) to invest and have partnership with TVET Schools, sensitize the

parents and other educational partners on the benefits of TVET in the life of their children, provide a career guider at each school to facilitate the students to do the right choice depending on her/his talent and vision, prepare and deliver the manuals related to the curricula and other books related to the TVET trades and reinforce or install product units to the schools.

Parents continued by saying that MINEDUC should know that there is a need to invest in TVET infrastructure specifically training equipment, because to be competent on the Job market one needs to gain skills through practice at School. It is evident to have a big number of TVET schools that could facilitate all Rwandans, to target quality more than quantity (make sure all schools are equally supported in terms of resources), to reinforce innovation and creativity, continue the awareness and attractiveness of TVET and to ensure a serious collaboration with the labor market.

The parents talked on school leadership to increase enrollment in TVET Schools and suggested that schools should follow government education policies, focus on quality and discipline, motivate trainers with a regular supervision to their trainers, school management should empower students at school, equip them with ethical knowledge toward market demand, school leadership should market their schools to improve the attractiveness of the schools and try to link parents financial capacity with school fees, to make sure that trades in the school are really relevant, to provide quality training and make sure that relevant infrastructures such as boarding facilities are available.

4.6. Discussion on research findings

During this research, researchers assessed factors influencing enrollment in TVET schools on TVET students, schools head teachers, parents and education policy makers using questionnaires and interview to get significant findings from

respondents. Here below is the discussion of findings related to the research objectives.

4.6.1. Findings from students

The findings from students about their views on to which extent school-based factors such as curriculum content, textbooks availability, trainers' capacity, trainers' insufficiency, workshops status, training materials and equipment availability, training consumables availability and school leadership, school location and boarding facilities and access to government scholarship, are detailed here below.

Research results revealed that Curriculum content, textbook availability, trainer's capacity, trainer's insufficiency, training materials and equipment availability and training consumables availability are factors with a positive impact on enrollment. Learning factors as detailed above, have positive influence at 95% as indicated by disaggregated views from respondents while boarding factors have an influence at 95.8%. Those are important factors to courses delivery for students. Learning environment in TVET schools is among the components that attract students, when it is on standards or in critical status it influences enrollment.

4.6.2. Findings from education stakeholders

During this research, researchers assessed the role of education stakeholders including education policy makers, school managers and parents in increasing enrollment in TVET schools and the view of implementers on the factors influencing enrollment in TVET schools. Here below is the discussion of findings related to the research objectives.

4.6.2.1. Discussion from education policymakers

Education Policymakers as change initiator in the TVET schools participated in the research and provided their views on the enrollment in TVET schools. This refers to available policy and strategies and their suggestion to implementers and beneficiaries of the enrollment in TVET Schools. Education Policymakers on the trainee's enrollment facilitation by the available policy and strategies in general and TVET in particular.

Policymakers during the interviews argued that students are basically given the orientation on their career choices and this is envisaged through their study options in particular. It is clear that the policies in place facilitate the trainee's enrolment in TVET schools by giving clear explanations on the objectives and rationale of TVET in the development of the economy of the country and how the policy highlights the way by which TVET training can be a key to development through skilled trainees and job creators". This is in line with government target to reach 60% of TVET enrollment by 2024 and the current enrollment in TVET schools is highlighted.

The education policymakers indicated their point of views to schools' leaders in order to increase the TVET Schools' enrollment. They proposed that good leadership and quality of education make a school competitive in attracting a high number of students. In general school leaders should strive to be good leaders and this is the only way parents and children will trust them, school leaders should be always present at school and provide all training materials needed to facilitate practical activities. Another crucial thing is establishing TVET Schools alumni to share what they have acquired after completing TVET Schools and good practices that can be shared to trainees and change students' mindset by focusing on

capacity development of young generation especially providing strategic orientation for students' career path”

During the interviews, education Policymakers confirmed that to increase the TVET Schools' enrollment, parents have to know that in near future, all jobs will require technical skills. Therefore, they should choose wisely to enlighten a bright future for their children, make their own assessment about the benefit of TVET especially in employment promotion. Parents have to advise children to enroll in TVET schools by explaining them that TVET is an area that can contribute to poverty reduction because it offers many opportunities for job and thus allowing a better future to youth.

The Policymakers pointed out that to increase the TVET Schools' enrollment, students and parents should know that nowadays, TVET is no longer for those with limited intellectual capacity as was biased by mindset. The country's economy is in the hands of those with technical skills, and the economy should not be in the hands of those who are not capable. They should take care of the country's future and of themselves. Therefore, students should focus on the current economic trends and take informed decisions in their career development that are relevant to the labor market needs and fourth industrial revolution. Students should look more towards their future and think big because the world is moving so quickly that only one who is enough skilled should compete to be able to survive in the future.

4.6.3 Discussion of Findings from parents

During the research, parents' comments on students' responsibilities to increase enrollment in TVET Schools confirmed that students have to make a right choice related to their vision and talents, reduce the fear of some occupation, to learn

from some best model people who succeeded, to be job creator rather than seekers, students should do their best to use the opportunity when at school and exhaust the use of each and every instrument. Then at the job market they will represent the TVET school and people will wish to send their children in TVET and to look for future and national targets and join TVET options that allow them to get jobs easily.

The results of the study indicated that parents suggested to the community their contribution to increase enrollment in TVET Schools. This contribution lies in the fact that community has to change a mindset, believe the competence of a TVET student; give TVET leavers opportunity to work for them when they are in short holidays, and in the end give them opportunity to work when they are graduated, to contribute to the awareness and encourage youth to join TVET especially those from families with low income so that they can help them as needful.

4.6.4 Discussion of Findings from school head teachers

The researcher considered school head teachers in TVET schools as respondents of the questionnaire to respond to research objectives as the stakeholders in enrollment increment. The school head teachers provided information on enrollment capacity and enrollment at level 3 for 200-2021 school year for their respective schools, their level of appreciation on school based, socio-economic and psychological factors influencing enrollment in TVET schools and also indicated their school capacity in terms of learning facilities and boarding facilities.

4.6.4.1 Schools' enrollment capacity at level 3

Based on recent enrollment via schools' responses to the research compared to their enrollment capacity, the results of the research show that most schools have

the capacity to enroll students but the number of students enrolled is still very low. In general, TVET schools by 2020-2021 at level 3 were underutilized in terms of capacity. It is clear that the enrollment in a given trade is dependent on speculation of the local market where students believe they could be employed or self-employed.

4.6.5 Discussion of finding on causes of low enrollment in TVET Schools

To respond to research objectives, researcher analyzed causes of low enrollment in TVET Schools based on responses furnished by students and head teachers from target TVET Schools. The results of the study revealed that many TVET Schools experience low enrollment due to higher school fees which low income families are unable to afford, plus additional education costs, lack of competent and skilled trainers who respond to the new technologies, absence of standards on training materials and equipment to training programs and lack of TVET awareness and its benefits as argued by both students and head teachers who participated in the research. Other causes which were highlighted include insufficiency of hands-on skills (practicals) in schools, discouragement due to the absence of career progression/path, and lack of career guidance for O'level leavers, as stated by students. On the other hand, head teachers argued that misconception of TVET by the community, higher education cost on TVET, inadequate marketing strategies and insufficiency of financial capacity among training providers are other causes of low enrollment in TVET Schools in Rwanda.

4.7. Summary of chapter four

The results of the research revealed that students who participated in the study were in the age range of 15-19 as represented by 67.8% of respondents. Most of them mostly belong to category 3 of *Ubudehe* (74.4%) which implies that they are

from families with moderately low income and this is an indicator of low enrollment in TVET schools because they cannot affordable education costs.

The discussion of findings in this research revealed that the most striking factors influencing enrollment in TVET schools are school-based and socio-economic and psychological factors. Respondents highlighted that Curriculum content, Textbooks availability, Trainers' capacity, Trainers' insufficiency, Workshop status, Training materials and equipment, Availability of training consumables, School leadership, School location, Boarding facilities, Government scholarship, School fees, Education costs, Family income, Family conflict, Parent's educational level, TVET negative perception, Employment opportunities are the factors that are at the first stimuli to the higher or lower number of enrolled students in TVET schools in Rwanda. Main causes of low enrollment to TVET Schools include higher school fees, plus additional education costs, lack of competent and skilled trainers who do not respond to the new technologies, absence of standards on training materials and equipment to training programs, lack of TVET awareness and its benefits, insufficiency of hands-on skills (practicals) in schools, discouragement due to the absence of career progression/path, lack of career guidance for O'level leavers, on one hand. On the other hand, misconception of TVET by the community, higher education cost on TVET, inadequate marketing strategies and insufficiency of financial capacity among training providers are other causes of low enrollment in TVET Schools in Rwanda.

Different scholars discussed the factors related to the enrollment in conformity with findings of this research. Their discussions are here to support nowadays views of different stakeholders' ideas on enrollment in the education sector.

CHAPTER FIVE SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.0. Introduction

This chapter gives the information on summary of findings and its related conclusion. It details findings in relation to the research objectives. The research sought to analyze the factors influencing the enrollment in TVET schools in Rwanda.

TVET in Rwanda has been delivered by different providers at various qualification levels. Technical education is offered at upper secondary school level and at university level or polytechnics. Technical and Vocational Training is offered to secondary ordinary level leavers who are students under the supervision of Rwanda TVET Board (RTB), on the other hand the upper secondary leavers to join TVET are under Rwanda Polytechnic (RP) and private polytechnics.

5.1. Summary of the findings

5.1.1. Factors influencing enrollment in TVET schools

The researcher assessed the factors influencing the enrolment in TVET schools basing on views of students, parents, head teachers and education policy makers as the respondents to the survey's questionnaires.

Based on research findings, the study found that school based factors such as curriculum content, textbooks availability, trainers' capacity, trainers' insufficiency, workshop status, training materials and availability of equipment, training consumables availability, school leadership, school location , boarding facilities combined with access to government scholarship and socio-economic factors including school fees, education cost, family income, family conflict,

parent's educational level, perception about TVET and employment opportunities influence enrollment in TVET schools and were revealed to be the main causes of low enrollment in TVET Schools in Rwanda as confirmed by 95% head teachers and 95.8% of students as research participants.

On the other hand, other factors influencing enrollment that were aired out by the study include limited skills and limited chances to join universities, high school fees to good schools, the cost of education, the quality of schools in terms of resources (staff, workshops and equipment, etc). In addition, current job market opportunity for TVET graduate, TVET support to trainees to gain hands on skills with appropriate knowledge and right attitude in order to compete on labor market were also highlighted as major factors to school enrollment.

The mentioned school-based and socio-economic factors are to be focused on by a school in order to be an attractive learning environment for beneficiaries. Those factors are tangible and intangible but schools in collaboration with the government, they have to be considered and linked to standards of labor market demand. For those factors to be in place, there is a need for close collaboration among all stakeholders not only with the government but also with implementers and beneficiaries including parents and students themselves.

5.1.2 The role of educational stakeholders and strategies to increase the enrollment in TVET schools

The role of the government as an educational stakeholder is to increase the investment in TVET and prioritization of training programs that are more employable at labor market. The study also revealed that Government would not only focus on equipping schools for good quality of education but also find ways of increasing opportunities for employment to the graduates in a short period of

time after graduation as a motivation to students, and once an employer is satisfied with the employee skills that is also an achievement in compliance with TVET of contributing to lower unemployment among Rwandans. This speaks itself to attract students on TVET and thus leads to the increment of TVET enrollment in future.

The study findings indicated the role of the government in providing trainings to TVET Schools trainers to cope with the technological world which is moving quickly thus requiring more skilled people. The strengthening of public-private partnership to align what trainees are taught in theory to what is done in industries will also improve graduates' skills and increase the enrollment in TVET Schools.

The study found out that building and equipping workshops, having model TVET schools, providing continuous professional development to the trainers, mobilizing private sectors and religious people and other educational practitioners to invest and have strong partnership with public TVET Schools, educate parents and other educational partners on the benefits of TVET in the life of their children in future, provide career guidance at each school to facilitate the students make the right choice depending on one's talent and vision, prepare and deliver the manuals and textbooks related to the curricula related to the TVET would be a well-played role in increasing TVET enrollment.

5.2 Conclusion

Rwanda's economy is characterized by a lack of qualified people at the workplace. The goal of TVET education is therefore to fight ignorance and illiteracy so as to produce competent human resources for economic and social development. To address the critical shortage of qualified technical and vocational workers at the labor market, there is a need to link TVET policy with employment and other sectors' development policies.

Being a landlocked country that has a shortage of natural resources; Human resources are the only development factor it can offer in the region. The same holds in terms of benefiting from the advantages of globalization. Therefore, Rwanda has no other option but to develop competent human resources with labor market need in terms of competence for competition at regional and international level.

Technical and Vocational Education is a human right as stipulated in Article 26 of the Universal Declaration of Human Rights. The UNESCO Convention on Technical and Vocational Education (1989), the Revised Recommendations concerning Technical and Vocational Education (2001) and the UNESCO UNEVOC Paper “Orienting Technical and Vocational Education and Training for Sustainable Development” (2006) constitute main references for the Rwandan TVET Policy which aims to develop TVET as a vital aspect of the educational system.

Although the Education Sector Policy and the National Science, Technology and Innovation Policy clearly indicate the Government’s commitment to develop and improve TVET, the country is still in dire need of skilled workers from manpower to technicians. TVET lacks effectiveness and relevance to the reality of the workplace. Even in those occupational fields that show high demand for skilled workforce, like the construction sector, TVET graduates are not employed at a high rate because of lack of practical hands-on skills. The government development plan is required to invest in TVET by considering all assessed factors in order to respond to the target and fill the gap in terms of access and quality.

5.4 Recommendations

Based on findings and in line with study objective, some recommendations have been formulated and are addressed to the Government represented by the Ministry of Education and its affiliated institutions (NESA as education policy regulator and RTB as education policy implementer), TVET School providers, parents and students.

To the Government of Rwanda

1. The Government should endeavor to mobilize sufficient funds to invest in TVET by increasing and improving learning facilities, creating and equipping model TVET Schools where there is densely population.
2. Given that TVET education is costly, the availability of affordable scholarships to competence but low income students shall increase TVET enrollment.

To the Ministry of Education

1. As policy initiator, the Ministry of Education should link training programs with labor market demand.
2. Strengthening public-private partnership by compelling Private TVET Schools to closely collaborate with the government
3. Providing regular trainings to TVET trainers to enable them deliver hands-on skills for employability.
4. Advocate to TVET students for career path and advancement.

To NESA

1. NESA should increase enrollment in TVET schools by allocating students as per their choice,

2. To conduct an awareness on how TVET is beneficial and encourage youth to join TVET.
3. To conduct regular inspection and assess if trainers deliver according to the curricula.
4. To regularly assess all schools for better performance through learning facilities
5. To promote competition among TVET students and TVET Schools.

To RTB

1. RTB has to promoting TVET via advertisement on social media as sources of information with easy access for Rwandan youth and parents.
2. It has to avail text books and equipment, reduce school fees, hire skilled trainers and increase practical.
3. In the way of TVET strengthening, RTB should have a specific plan for improving curriculum, trainers' capacity building, to provide ICT facilities, recent technology in TVET schools, increase critical thinking about leadership in TVET school leaders.

To Parents and community at large

1. They should change mindset about TVET and guide their children in their choices.
2. They should contribute to the awareness and encourage youth to join TVET especially those from families with low income so that they can help them as needful.
3. Stop undermining TVET Graduate competences.

To students

1. Vision is always the key, therefore they choose based the country 's priority and vision.

2. Considering that a better choice and a good vision cannot be achieved without having a discipline, Students should motivate themselves to join TVET and be disciplined to succeed.

To TVET Schools

1. TVET Schools are recommended to dress a clear plan of advertising their work in order to attract the public.
2. They should focus on quality and discipline, motivate trainers with a regular supervision on them and build their training,
3. School leadership should empower students at school, equip them with ethical knowledge toward market demand,
4. They have to link parents' financial capacity with school fees and make sure that trades in the school are really relevant to current job market,
5. They are recommended to provide quality training and make sure that relevant infrastructure is available

5.5 Suggestions for further study

6. During the study, Factors influencing enrollment in TVET Schools of Rwanda, Southern Province and Kigali City TVET Schools as a case study, was examined. Based on the limitations, the researcher wishes to suggest empirical studies in the following area:
 - Causes of low enrollment of students in TVET Schools versus general education schools of Rwanda.

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APPENDICES

Questionnaires

INTRODUCTION LETTER

Dear Sir/Madam,

RE: RESEARCH PROJECT

I am a university graduate, pursuing Master of Education, Department of EDUCATIONAL LEADERSHIP AND MANAGEMET at the University of Rwanda. I am carrying out research on factors influencing enrollment in TVET Schools located in KIGALI City and Southern Province.

The information collected will be confidentially treated and strictly used for academic purpose only. Kindly provide honest and correct information according to your own views objectively in the questionnaire provided.

Thank you.

Rehema MUKANKUBITO

APPENDIX 1: QUESTIONNAIRE ADMINISTERED TO HEAD TEACHERS/SCHOOL MANAGERS

This questionnaire intends to collect information on factors influencing enrollment in TVET Schools located in Kigali City and Southern Province. The information provided will be confidential and will only be used for research purpose.

Name of the School.....

1. DEMOGRAPHIC CHARACTERISTICS

1.1 Respondent's information

a) Gender: Male Female

b) How long have you been a Head teacher/School Manager:Years

1.2 What is TVET to your understanding?

- a) Vocational Training
- b) Technical Education
- c) Hands on skills education
- d) a&b
- e) all (a, b and c)

1.3 Enrolment in TVET

- a. What is your school enrollment capacity at level 3?
- b. Please give the total/statistical enrollment at level 3 according to the following periods per trade:

Trade/Option	Year		Nbr of Boys	Nbr of Girls	Total
	2018				
	2019				
	2020				
	2021				
	2018				
	2019				
	2020				
	2021				

- c. The following table indicates some school –based factors that could influence enrollment. Based on your experience, indicate the extent to which the school can be influenced in terms of enrollment.

Factors	Very high	High	Low	No influence at all
Curriculum content				
Textbooks availability				
Trainers’ capacity				
Trainers’ insufficiency				
Workshop status				
Training materials and equipment availability				
Training consumables availability				
School leadership				
School location				
Boarding facilities				
Access to government scholarship				

- d. State other school -based factors that were not provided .
- e. If you have ever faced low enrollment in your school, what do you think are its main causes?
- f. State used strategies to increase enrollment at level 3.

B. Socio-economic factors

i. The table below indicates the social-economic factors influencing enrollment in TVET Schools. Kindly tick on YES or No to show if you agree or disagree.

Factors	VERY HIGH	HIGH	LOW	NO INFLUENCE AT ALL
School fees				
Education costs (other required fees in addition to school fees)				
Family income				
Family conflict				
Parent's education level				
Negative perception about TVET				
Available Employment opportunity				

ii. State other social-economic factors that you think can influence TVET School enrollment

C. Role of educational stakeholders and Measures/strategies to increase enrollment in TVET Schools

a. In your opinion, what do you think the following can do to increase enrollment in TVET Schools?

NESA

RTB

MINEDUC

PARENTS

-Teachers:

- Students themselves

I thank you very much for your cooperation.

APPENDIX 2: QUESTIONNAIRE ADDRESSED TO STUDENTS

This questionnaire intends to collect information on factors influencing enrollment in TVET Schools located in Kigali City and Southern Province. The information provided will be treated with confidentiality and will be used for research purpose only.

Do not write your name on the questionnaire.

I. Background information

1. Gender:

Male Female

2. Which one is your age range

15-19 20-25

3. Which province is your school located?

Kigali City Southern province

4. Which *ubudehe* category of your family?

Category 1 Category 2 Category 3 Category 4

5. What is TVET to your understanding?

- f) Vocational Training
- g) Technical Education
- h) Hands on skills education
- i) a&b
- j) all (a, b and c)
- k) Others,

.....
.....

6. How do you understand by enrolment in TVET???

- a) admission.
- b) enlistment.
- c) recruitment.
- d) acceptance.
- e) accession.
- f) engagement.
- g) entrance.
- h) All explain the enrolment?
- i) Others,.....

7. Enrolment in TVET

- a. The following table indicate some school –based factors that could influence enrollment. Based on your experience, indicate the extent to which the school can be influenced in terms of enrollment.

Factors	VERY HIGH	HIGH	LOW	NO INFLUENCE AT ALL
Curriculum content				
Textbooks availability				
Trainers’ capacity				
Trainers’ insufficiency				
Workshop status				
Training materials and equipment availability				

opportunity

ii. State other social-economic factors that you think can influence TVET School enrollment

C. Role of educational stakeholders and Measures/strategies to increase enrollment in TVET Schools

a. In your opinion, what do you think the following can do to increase enrollment in TVET Schools?

NESA

RTB

MINEDUC

PARENTS

-Teachers:

- Students themselves

APPENDIX 3: INTERVIEW ADMINISTERED TO PARENTS

The following interview guide intends to collect information on factors influencing enrollment in TVET Schools located in Kigali City and Southern Province. The information provided will be treated with total confidentiality and will be used for research purpose only.

- 1. Gender: Male :.....Female:
- 2. Did you attend school? If yes, which level of education have you reached?

3. What is TVET to your understanding?

- l) Vocational Training
- m) Technical Education
- n) Hands on skills education
- o) a&b
- p) all (a, b and c)

4. How do you understand by enrolment in TVET???

- j) admission.
- k) enlistment.
- l) recruitment.
- m) acceptance.
- n) accession.
- o) engagement.
- p) entrance.
- q) All explain the enrolment?
- r) Others,.....
.....
.....

5. Do you have children in TVET or General education schools?

6. Why have you chosen to send your child/children to enroll in that trade/combination?

7. In your opinion, what do you think can be the factors influencing the enrollment in TVET schools?

8. What do you suggest the following educational stakeholders can do to increase enrollment in TVET Schools?

a. Ministry of Education

b. School leadership

c. Students themselves

d. Community

Thank you for your cooperation.

APPENDIX 4: INTERVIEW ADMINISTERED TO EDUCATION POLICY MAKER

The following interview guide intends to collect information on factors influencing enrollment in TVET Schools located in Kigali City and Southern Province. The information provided will be treated with total confidentiality and will be used for research purpose only.

1. Are there any current education policy related to TVET?
2. If yes, how does this policy facilitate trainee's enrollment?
3. Would you please mention some TVET programs that were set by the government to encourage TVET enrollment?
4. Is there any public spending in TVET? If yes, what is it?
5. Based on government target to reach 60% of TVET enrollment by 2024, it was observed that TVET schools are lowly enrolled, do not you find it challenging?
6. If yes, what are some strategies the government is adopting to mitigate this challenge?
7. In your opinion, what are you suggesting the following education stakeholders can support in increasing the enrollment in TVET Schools:
 - a. Parents
 - b. Community
 - c. Students themselves
 - d. Schools

Thank you very much for your cooperation.

RECOMMENDATION LETTER FOR RESEARCH



UNIVERSITY of
RWANDA

COLLEGE OF EDUCATION

RESEARCH AND INNOVATION UNIT

Rukara, 30th June 2022
Réf: 03/DRI-CE/100/EN/gi/2022

Re: Research recommendation letter for Mrs. Rehema MUKANKUBITO

To whom it may concern,

On behalf of the University of Rwanda-College of Education (UR-CE), I am pleased to introduce Mrs. Rehema Mukankubito, a post-graduate student at the School of Education of UR-CE. Mrs. Mukankubito is writing his thesis on: the **“Factors influencing enrollment in TVET Schools of Rwanda. Case of TVET Schools located in the City of Kigali and Southern Province”** to complete his Master of Education in Leadership and Management.

She wishes to analyze the factors influencing enrollment in TVET schools in Rwanda. Thus, she requests permission to collect data from TVET and General Education schools' students, their parents, and School Managers from selected TVET and General schools located in Kigali-City and Southern Province. She will also organize interviews with Policy Makers from the Ministry of Education, the National Examination and School Inspection Authority, and the Rwanda TVET Board.

Mrs. Mukankubito's research project passed successfully through an internal collegial ethical process. Thus, the University of Rwanda-College of Education: Directorate of Research and Innovation confirms that her research adheres to ethical standards and principles. Therefore, we kindly request you to accord her your cooperation in this research.

We very much hope to get your usual cooperation.

Yours sincerely,



Digitally signed by
UR (Rukara, Directorate of Research &
Innovation)
Date: 2022.06.30
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