GRADUATE YOUTHS' PERCEPTIONS REGARDING AGRICULTURAL VOCATIONAL EDUCATION AND TRAINING IN DEVELOPING THEIR EMPLOYABILITY SKILLS IN SOUTH WESTERN UGANDA

BY

GUMISIRIZA PONTIANO

20/U/GMAE/13443/PE

2000813443

A RESEARCH REPORT SUBMITTED TO THE DIRECTORATE OF RESEARCH AND GRADUATE TRAINING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE MASTER OF SCIENCE DEGREE IN AGRICULTURAL EDUCATION AND EXTENSION OF KYAMBOGO UNIVERSITY

DECEMBER, 2024

DECLARATION

This thesis is my original work and has never been presented for an award of diploma, a degree or Masters in this or any other university.

Signature…… Date……

APPROVAL

This thesis has been submitted for examination with my approval as the University supervisor.

Signature…… Date……

Dr. Tamubula Bulenzibuto Irene

Signature…… Date……

Dr. Makosa Dan

DEDICATION

I dedicate this thesis thesis to my lovely wife and children. They are the source of my inspiration.

ACKNOWLEDGMENT

First and foremost, I thank the Almighty God, who inspired me and saw me through the toughest moments of this Master's program. I am very grateful to my supervisors, Dr Tamubula Bulenzibuto Irene and Dr. Dan Makosa, who guided and supported me throughout the research process leading to the realization of the results. Their commitment and encouragement enabled me to break through.

I humbly recognize the management and administration of Uganada Business and Technical Examinations Board and the entire staff for the support rendered in my course of study. Furthermore, I appreciate the supportive involvement of the graduates from Kyera Agricultural College, Kitagata Farm Institute, Rwentanga Farm Institute, Rwampara Farm Institute for permitting the research to be conducted without them taking part in this study, the whole process would have been unachievable.

I also recognize the Management and Administration of the Graduate School of Kyambogo University for the wonderful coordination work that smoothed out the ever-challenging research terrain. In a similar way, I thank my classmates, Team Haven Family, particularly those with whom I closely shared many special learning experiences. I also thank my family and friends for their encouragement, even when I thought I could not move anymore.

LIST OF ACRONYMS AND ABBREVIATIONS

AVET	Agriculture, Technical Vocation Education Training
CBET	Competence-Based Education and Training
DIT	Directorate of Industrial Training
NCDC	National Curriculum Development Centre
NFTF	Non- Formal Training Framework
PBC	Perceived Behavioral Control
SN	Subjective Norms
SPSS	Statistical Package for Social Sciences
TRA	Theory of Reasoned Action
TPB	Theory of Planned Behavior
TVET	Technical vocational education and training
UBTEB	Uganda Business Technical Examination Board

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

The general objective of the study was to assess graduate youths' perception about the extent to which agricultural vocational education and training develops theiremployability skills. Notably, agricultural vocational education aims at equipping students with technical and entrepreneurial capabilities essential for success in the agricultural sector. Many graduates of AVET programs struggle to secure stable employment due to a mismatch between the skills provided by AVET programs and labor market demands. The study therefore aimed to establish the percievd level of competences of graduates of agricultural vocational education and training in employability skills in agriculture related jobs, factors that influence AVET graduates to apply attained employability skills in the job market, and factors that influence employability of AVET graduates. The study used a descriptive research design, with a sample of 199 participants. A ruestionaire was used to gather the data, descriptive and inferential statistics were used to evaluate it. The perceived overall levels of competence among AVET graduates showed that approximately half of the graduates possessed either moderate (18.1%) or high competences in employability skills (32%). The study identified several factors influencing graduates' willingness to apply attained employability skills in the job market, including attitudes towards employability (OR = 1.491, Sig. = 0.026), influence of other people (OR = 0.874, Sig. = 0.048), and perceived behavioral control (OR = 1.301, Sig. = 0.013). Moreover, the study highlighted various factors influencing the employability of youths who graduated in AVET, such as technical competence (OR = 1.211, Sig. = 0.001), fundamental employability skills (OR = 1.412, Sig. = 0.029), personal management skills (OR = 0.807, Sig. = 0.025), and teamwork skills (OR = 1.216, Sig. = 0.041). The study revealed that about half the graduates from agricultural vocational education and training (AVET) programs generally perceive themselves as competent, particularly in technical areas such as identifying market opportunities, managing enterprises, and performing agricultural tasks. Graduates' attitudes towards employability in agricultural realated jobs and their perceived behavioral controls influenced their willingnedd to apply attained employability skills in the job market. The factors that influenced the employability of youths who graduated in AVET (Agricultural Vocational Education and Training included; Technical competence, fundamental employability skills, and teamwork skills, most important employability skills in determing the likelihood of AVET graduates' being employed. The study offered the following recommendations: focusing on enhancing skills in soil and water management, crop production, and livestock management; improving effective communication skills and conducting training sessions for personal management skills. Further, there is need for targeted interventions to enhance positive attitudes among AVET graduates as well as providing additional resources, guidance, to boost graduates' competences so as to influencing students' perceptions to increase their willingness to seek employment in agriculture-related jobs.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Employability has recently emerged as a comprehensive goal, guiding national and international policies aimed at addressing unemployment crises (Corredor & Martínez, 2020;). Defined as a set of achievements encompassing knowledge, skills, and personal attributes, employability enables graduates to succeed in their careers and secure employment, thus benefiting the workforce, community, and economy (Pouratashi & Zamani, 2019). Similarly, Varghese and Khare (2021) characterize employability as an optimal blend of skills, competencies, and attitudes necessary for job performance. Technical vocational education and training (TVET) aims at preparing individuals for gainful employment or self-employment (entrepreneurship) in various occupations (Anaele, Amadi & Obed, 2016). For that reason TVET, builds students' knowledge and skills to work in their areas of specialization. The Government of Uganda's TVET Strategic Plan 2012–2022 regards TVET as a crucial means to develop employable skills and competencies aligned with labor market needs (Ministry of Education and Sports, 2011). TVET involves studying technologies and related sciences, providing young people with practical skills, attitudes, understanding, and knowledge relevant to various occupations, involves acquiring knowledge, attitudes, and practical skills pertinent to a range of jobs in the social and economic sectors, thereby fostering industrial development (Anaele, Amadi & Obed, 2016). It focuses on acquisition of skills, knowledge, and attitudes for productivity and self-reliance (Anaele, Amadi & Obed, 2016). Hence, graduates acquire employability skills during training. In Uganda, TVET plays a vital role in addressing the skills gap, promoting sustainable development, and contributing to economic growth by producing a skilled and adaptable workforce (Yiga, 2022). In Uganda, TVET is delivered through technical schools, institutes, colleges, polytechnics, medical colleges,

agricultural colleges, colleges of commerce, and the Non-Formal Training Framework (NFTF), all governed by the TVET Act 2008. Increasingly, governments, donor agencies, and development partners are supporting agricultural programs to achieve development goals, reflecting a deep concern for these objectives in Agricultural Vocational Education and Training (AVET) globally (Haßler *et al*., 2020). Integrating TVET with AVET in Uganda significantly contributes to providing practical skills, enhancing employability, and addressing the agricultural sector's specific needs for sustainable economic development (Openjuru *et al*., 2022). AVET is designed to prepare individuals for employment in agriculture-related occupations (Jjuuko *et al*., 2021; Kim *et al*., 2021) and aims to make learners productive in paid jobs or self-employment (Calero López *et al*., 2020). AVET fosters not only practical skills but also the attitudes and habits necessary for creativity, innovation, and resourcefulness in the agricultural sector (Chondrogiannis *et al*., 2021). The growing number of unemployed Agricultural Vocational Education Training graduates in Uganda suggests that these graduates may not be "job-ready" (Nzonzo, 2017). This issue is compounded by the expanding employability skill gaps, contributing to jobless growth in Uganda and globally.

Although AVET is believed to equip individuals with practical skills, there is a knowledge gap regarding the specific challenges these graduates face in securing and maintaining employment in Uganda. Existing research often highlights the benefits of vocational education, but a more detailed examination of AVET graduates' employment status and the factors influencing their employability is needed. This study aims to bridge this gap, providing insights into the employment status of AVET graduates, their willingness to work in agriculture-related jobs, and the factors affecting their employability in Uganda.

1.1.1 Historical Background

Agricultural vocational education and training (AVET) has long served as a critical tool for building employability skills, especially in advanced economies like the United States, the United Kingdom, and Germany. In the United States, AVET was institutionalized in the early 20th century through the Smith-Hughes Act of 1917, which established structured vocational education programs aimed at equipping young people with the skills needed for careers in agriculture. These programs integrate theoretical knowledge with hands-on practice, fostering competencies in areas such as innovation, technical know-how, and entrepreneurial thinking (National Research Council, 1988). In the United Kingdom, the roots of AVET can be traced back to the Industrial Revolution when agricultural training played a role in supporting rural communities. Today, agricultural education in the UK has evolved to focus on a mix of practical technical skills and sustainable practices. The emphasis lies in preparing students for emerging opportunities in the green economy (Levin, Catlin & Herbert, 2013). In Germany, the dual education system blends classroom-based instruction with real-world apprenticeships, creating a framework where graduates gain practical, job-ready skills. This system emphasizes specialization, workplace adaptability, and technical expertise, which have been instrumental in boosting the productivity of Germany's agricultural sector (Euler, 2013).

In Sub-Saharan Africa, agricultural vocational training is increasingly recognized for its potential to address youth unemployment and enhance food security. In Nigeria, agricultural vocational education gained traction after independence, especially through initiatives like the Agricultural Development Projects (ADPs) of the 1970s. These programs focus on equipping learners with skills in crop production, mechanized farming, and agribusiness management (Olaoye & Adebayo, 2017). Ethiopia, on the other hand, has incorporated agricultural vocational training into its development strategy since the 1990s. Through its Technical and Vocational Education and Training (TVET) program, the government has established colleges that provide competency-

based instruction designed to boost productivity and foster self-reliance among small-scale farmers (Asfaw, Simane, Hassen & Bantider, 2018). Similarly, Kenya has linked its agricultural vocational training initiatives to its national Vision 2030 strategy. Institutions such as the Kenya Agricultural and Livestock Research Organization (KALRO) provide training programs that emphasize practical skills in climate-resilient farming and agribusiness development, aligning graduates with the needs of the modern agricultural economy (Mutisya & Mbutu, 2019).

In Uganda, agricultural vocational education plays a critical role in addressing unemployment and promoting sustainable rural development. Its historical roots can be traced back to the colonial and post-colonial periods when the education system began integrating agricultural training to meet the needs of rural communities (MoFPED, 2020). During the 1960s and 1970s, there was a deliberate effort to ruralize the curricula, aligning education with local realities by emphasizing practical farming skills, basic agronomy, and animal husbandry. This initiative aimed to equip learners with the necessary knowledge and techniques to boost agricultural productivity and alleviate rural poverty (Olaoye & Adebayo, 2017).

Over the decades, Uganda's Agricultural Vocational Education and Training (AVET) programs have evolved to address emerging challenges such as climate change, market dynamics, and technological advancements. Today, AVET is a cornerstone of Uganda's National Development Plan III, which prioritizes the development of employability skills in crop production, livestock management, and agro-processing (MoFPED, 2020). The integration of entrepreneurship into AVET curricula further reflects the government's commitment to fostering self-reliance among graduates.

Bukalasa Agricultural College, established in 1920, stands out as a pioneer institution in agricultural education. Initially focused on equipping students with traditional farming techniques, the college has expanded its curriculum to include advanced agricultural practices, sustainability-

focused training, and agribusiness management. By combining technical expertise with practical experience, Bukalasa and similar institutions aim to produce graduates who are not only employable but also capable of driving innovation and economic growth in Uganda's agrarian sector (Bukalasa Agricultural College, 2020).

In South Western Uganda, AVET is particularly significant due to the region's dependence on agriculture as a primary economic activity. Training programs in this region often focus on equipping learners with practical skills in the production of tea, coffee, and livestock. These programs are designed to meet local labor market demands while promoting self-employment and agricultural innovation. Experiential learning is central to these initiatives, empowering graduates to improve productivity and contribute to the region's development (Mwesigwa, 2021).

1.1.2 Conceptual Background

Employability skills encompass a broad set of competencies that equip individuals to effectively secure and sustain employment while navigating dynamic work environments. These skills include communication, problem-solving, teamwork, adaptability, and industry-specific technical expertise (Yorke, 2006). Within the realm of Agricultural Vocational Education and Training (AVET), employability skills expand to encompass specialized abilities such as crop production, livestock management, agribusiness operations, and sustainable farming techniques (Cranmer, 2006). These targeted competencies position graduates for both formal employment in agricultural enterprises and self-employment in agribusiness ventures. AVET thus emerges as a pivotal mechanism for addressing rural unemployment, fostering entrepreneurship, and contributing to economic transformation, particularly in regions where agriculture forms the backbone of livelihoods.

In the context of South Western Uganda, the relevance of employability skills in AVET is magnified by the region's dependence on agriculture. AVET programs in this area are designed to

close the gap between agricultural education and labor market demands by emphasizing experiential and practical learning approaches. These programs incorporate entrepreneurial training to empower learners to create sustainable self-employment opportunities. Such efforts are aligned with the National Development Plan III of Uganda, which underscores the role of vocational training in cultivating a workforce equipped to meet evolving labor market needs (MoFPED, 2020). This conceptual framework positions AVET as not only a tool for individual empowerment but also a driver of agricultural productivity and community resilience.

1.1.3 Contextual Perspective

South Western Uganda is predominantly agrarian, with agriculture serving as the primary source of livelihood for the majority of its population. The region is renowned for its production of high-value crops, including tea, coffee, and bananas, as well as its significant contributions to livestock farming. These activities are crucial not only for household sustenance but also for Uganda's overall export economy (UBOS, 2022). However, the agricultural sector in this region faces several challenges, such as high rates of youth unemployment, low productivity, and limited adoption of modern farming practices. These challenges underscore the need for targeted vocational education programs to enhance workforce readiness and agricultural innovation. Agricultural Vocational Education and Training institutions, such as Bukalasa Agricultural College and local vocational training centers, have stepped in to address these challenges. These institutions offer practical training in areas such as agronomy, animal husbandry, agro-processing, and environmentally sustainable agricultural methods. In South Western Uganda, such training not only aligns with the region's agricultural priorities but also addresses broader issues, such as climate change and market accessibility. By focusing on the integration of climate-smart farming practices and entrepreneurial skill development into their curricula, these programs aim to create a workforce capable of improving agricultural output and fostering economic resilience. As a

result, AVET is contextualized as a localized strategy for tackling unemployment, boosting agricultural productivity, and promoting sustainable rural development in the region (Mwesigwa, 2021).

1.2 Problem Statatement

The primary goal of AVET is to produce skilled work force to rejuvenate the national economy, reduce unemployment substantially, and ensure its sustainable operation (Omeje et al., 2020). In the recent years, agriculture has been acknowledged as a key driver of employment and economic growth in the developing nations where youths unemployment is still a major problem (FAO, 2020) . AVET is seen as a vital avenue for giving youths real wolrd skills that improve their employability and get the ready for jobs in the agriculture industry (ILO, 2019). Minimal empirical studies have been done on graduates opinions on how AVET programs aid in the development of employable skills depite the growing emphasis on the training. In Western Uganda, there is a significant concern about the efficacy of AVET in influencing the employability of its graduates (Barigye, 2024). Prospects for AVET graduates include potential employment in industries, establishment of personal enterprises, self-employment, or becoming employers themselves (Jjuuko, 2021). Research indicates that although AVET is seen as a valuable instrument for learning skills, its unclear if graduates' expectations for increased employability are met by these programs (Kumar *et al*., 2020; Verner & McLeod, 2019). Never the less, little empirical study has been done on graduate youths' perspective of how AVET programs is in development of employable skills, despite the growing emphasis on the area. The opinions of graduate youths on the value, effectiveness and outcomes of AVET programs are essential for assessing the initiatives' success and specifying areas in need of development. Gaining information from these perceptions can help improve AVET's alignment with labor market demands and young graduates' particular skills requirements (OECD, 2018)

The Ugandan government developed and is implementing the "Skilling Uganda" strategy, which emphasizes vocational education and training, AVET is one of the areas of focus to equip individuals with practical skills for improved employability and entrepreneurship, in the agricultural sector (Moses & Liu, 2023). Furthermore, the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) oversees agricultural policies and implementations, including AVET initiatives, and National Agricultural Training Institutes (NATIs) offering vocational training in agriculture, emphasizing practical skills related to agriculture, agribusiness, and related fields (Danyaro & Awang, 2018). Despite these efforts, the proportion of unemployed and impoverished youth in Uganda is increasing annually by approximately 2.44% (UBOS, 2020).

AVET holds the potential to address issues such as job creation, wealth generation, poverty reduction, and technological transformation, but the extent to which AVET graduates secure employment after their training is not well explained.

Thus, this study aims to explore how graduate youth perceive of them selves being competent with employability skills in agriculture related jobs, factors that influence their willingness to apply attained employability skills and the factors that influence their employability with a particular emphasis on their opinions on the programs ability and applicability in improving their preparedness for work in the agricultural industry.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study is to assess the graduate youths' perception regarding agricultural vocational education & training developing their employability skills in South Western Uganda.

1.3.2 Specific Objectives

The study was guided by the following specific objectives;

1. To establish the perceived levels of competence of graduates of agricultural vocational education & training in employability skills in agriculture-related jobs.
2. To assess the factors that influence agricultural vocational education & training graduates' willingness to apply attained employability skills in the job market.
3. To determine the factors that influence employability of youths who graduated in agricultural vocational education & training in South western Uganda.

1.3.3 Research Question

The study was guided by the following research question;

1. What is the perceived levels of competence in employability skills among graduates of agricultural vocational education & training, as it relates agriculture-related jobs?
2. What factors influence the willingness agricultural vocational education & training graduates to apply their employability skills in the job market?
3. What factors determine employability of youths graduates from agricultural vocational education & training programs in South Western Uganda?

1.4 Significance of the Study

This research will provide valuable insights into the factors influencing the employability of Agricultural Vocational Education and Training (AVET) graduates in South Western Uganda. The findings will benefit multiple stakeholders, including:

AVET Graduates

Graduates will gain a clearer understanding of the most sought-after skills by employers in the agriculture sector, enabling them to tailor their skill development accordingly. By aligning their skills and competencies with employer expectations, graduates can increase their chances of securing meaningful employment opportunities.

AVET Institutions

The study will help institutions identify gaps between their current curriculum and the evolving needs of the labor market. This information can be used to refine training programs and ensure that graduates are equipped with the necessary skills. The research will inform the development of effective teaching methodologies and practical training experiences to enhance student learning and skill acquisition.

Employers in the Agriculture Sector

The study will assist employers in identifying the most promising graduates with the required skills and competencies. The findings can inform employer strategies for recruiting, training, and retaining skilled workers, thereby contributing to a more skilled and productive workforce.

Policymakers and Development Agencies

The research will provide empirical evidence to inform the development and implementation of policies and programs aimed at improving agricultural education and training. Policymakers can allocate resources effectively to address specific skill gaps and promote the employability of AVET graduates.

Researchers and Academicians

The study will contribute to the existing body of knowledge on agricultural education, training, and employment. The findings can serve as a foundation for future research on related topics, such as the impact of specific interventions on graduate employability and the role of technology in agricultural education

1.5 Scope of the study

1.5.1 Geographical Scope

This study was conducted in the South Western Region of Uganda. The research focused on AVET Institutions namely; Rwentanga Farm Institute, kyera agricultural college both situated in mbrara district, Rwampara Farm Institute in Rwampara District and Kitagata Farm Institute located in

Sheema District. These institutions were strategically chosen due to their location in South Western Uganda and their exclusiveness in offering purely agriculture-related programs. This selection allowed for a representative study of the broader South Western Region, ensuring that the findings could potentially apply to a larger geographic area and provide insights into the challenges and impact of AVET programs in the region. The presence of such institutions facilitated the examination of curricula, training methodologies, and the alignment of these programs with the needs of the local job market. The study focused on students who graduated from these institutions in the years 2018 and 2019.

1.5.2 Content Scope

The study was limited to employability skills of AVET graduates, graduates perceive their level of competence, the correlation between graduates' perceived competence in employability skills and their employment outcomes, the graduates' will to apply attained employability skills in the job market and the factors that influence the employability of AVET graduates in South Western Uganda.

1.5.3 Time Scope

Students that graduated in the years 2018 and 2019 allowed the researcher to deeply explore complex social issues, capture temporal changes, build robust relationships with participants, and gain a thorough understanding of the phenomena under investigation. This extended duration enabled a comprehensive examination of both short-term and long-term dynamics, contributing to the rigor and relevance of the research (Caruana, Roman, Hernández-Sánchez & Solli, 2015). Graduates to a tune of 63% from AVET institutions can secure employment within the first year after completing their education (UBTEB, 2024), therefore trainees that graduated in years 2018 & 2019 were considered for the study because have had sufficient time to engage in gainful employment, triend to search for employment opportunities or established agricultural related enterprises in the job market.

1.6 Theoretical Framework

The Theory of Planned Behavior (TPB) is a psychological theory that aims to explain and predict human behavior based on individual attitudes, subjective norms, and perceived behavioral control. The theory was developed by Icek Ajzen in the late 1980s as an extension of his earlier work, the Theory of Reasoned Action (TRA) (Ajzen & Schmidt, 2020). According to Rozenkowska (2023), the Theory of Planned Behavior posits that human behavior is guided by three main factors: i) Attitude Toward Behavior (A) which refers to an individual's beliefs about the outcomes or consequences of the behavior and the individual's overall assessment of whether the behavior is favorable or unfavorable; ii) Subjective Norms (SN) reflects the perceived social pressure or expectations regarding a specific behavior i.e. the individual's beliefs about whether important referents (such as friends, colleagues, or family) approve or disagree with the behavior; and iii) Perceived Behavioral Control (PBC) which is the individual's perception of the ease or difficulty of performing the behavior. It includes factors such as perceived self-efficacy, resources, and opportunities. The more control an individual perceives, the more likely they are to engage in the behavior. Ajzen (2020) illustrates how behavioral intentions-the desire to carry out a particular behavioir, the three factores are related by the following equation:

Behavioral Intention (BI)=Attitude toward Behavior (A)+Subjective Norms (SN)+Perceived Beh avioral Control (PBC)

In turn, behavioral intention is considered a strong predictor of actual behavior. However, the theory also recognizes that factors beyond intention, such as external constraints, may influence the actual performance of the behavior (Bosnjak, Ajzen & Schmidt,2020). Therefore, this study included other factors namely technical skills, problem solving skills, communication skills, teamwork and collaboration, entrepreneurial skills, adaptability and flexibility, and technology proficiency.

The Theory of Planned Behavior has been widely used in various fields, including health psychology, social psychology, and organizational behavior, to understand and predict a wide range of behaviors, such as health-related behaviors, environmental behaviors, and consumer behaviors (Hagger, 2015; Mankarious & Kothe, 2015; Hagger & Hamilton, 2023). Furthermore, the TPB has been widely accepted and applied as a robust theoretical framework for understanding and predicting human behavior. It builds upon the earlier Theory of Reasoned Action (TRA) and addresses some of its limitations by incorporating perceived behavioral control. Numerous studies across various domains have confirmed the predictive power of the TPB in explaining behavioral intentions and actual behaviors (Chatzisarantis, *et al*. Kamarov, Kawabata, Wang and Hagger, 2015; Brooks, *et al*. Iwanga, Chiu, Cotton, Deiches, Morrison & Chan 2017; Kirk & Haegele, 2019; Sur, Jung & Shapiro, 2022)2015; Brooks, *et al*. 2017; Kirk & Haegele, 2019; Sur, *et al*. (2022).

In light of this research, the behavioral intention would represent the graduates' willingness or plans regarding their being employed in agriculture-related employment after completing Agricultural Vocational Education & Training. Attitude toward behavior (A) component of the TPB refers to the graduates' positive or negative evaluations of seeking employment after completing AVET. It involves their beliefs about the outcomes and consequences of pursuing employment opportunities in the agricultural sector. Subjective Norms The subjective norms (SN): aspect of the TPB focuses on the graduates' perceptions of societal expectations and influences regarding employment in the agricultural sector. It considers factors such as social support, encouragement, or pressure from family, peers, and other significant individuals. Perceived Behavioral Control (PBC): refers to the graduates' perceptions of the ease or difficulty of obtaining employment in the agricultural sector after AVET. It takes into account elements including the graduates' access to resources, employment prospects and confidence in their abilities.

This study, therefore, used the TPB to explore how the graduates' perceived behavioral control attitudes and subjective norms influenced their willingness to seek employment or to have actual employment in agriculture-related fields. In summary, the Theory of Planned Behavior provides a structured and comprehensive framework in order to look at the factors influencing the employability decisions of Agricultural Vocational Education & Training graduates in Western Uganda. It offered a lens through which attitudes, subjective norms, and perceived behavioral control of graduates were examined, contributing valuable insights about the effectiveness of AVET programs in preparing youths for employment in the agricultural sector.

1.7 Conceptual Framework

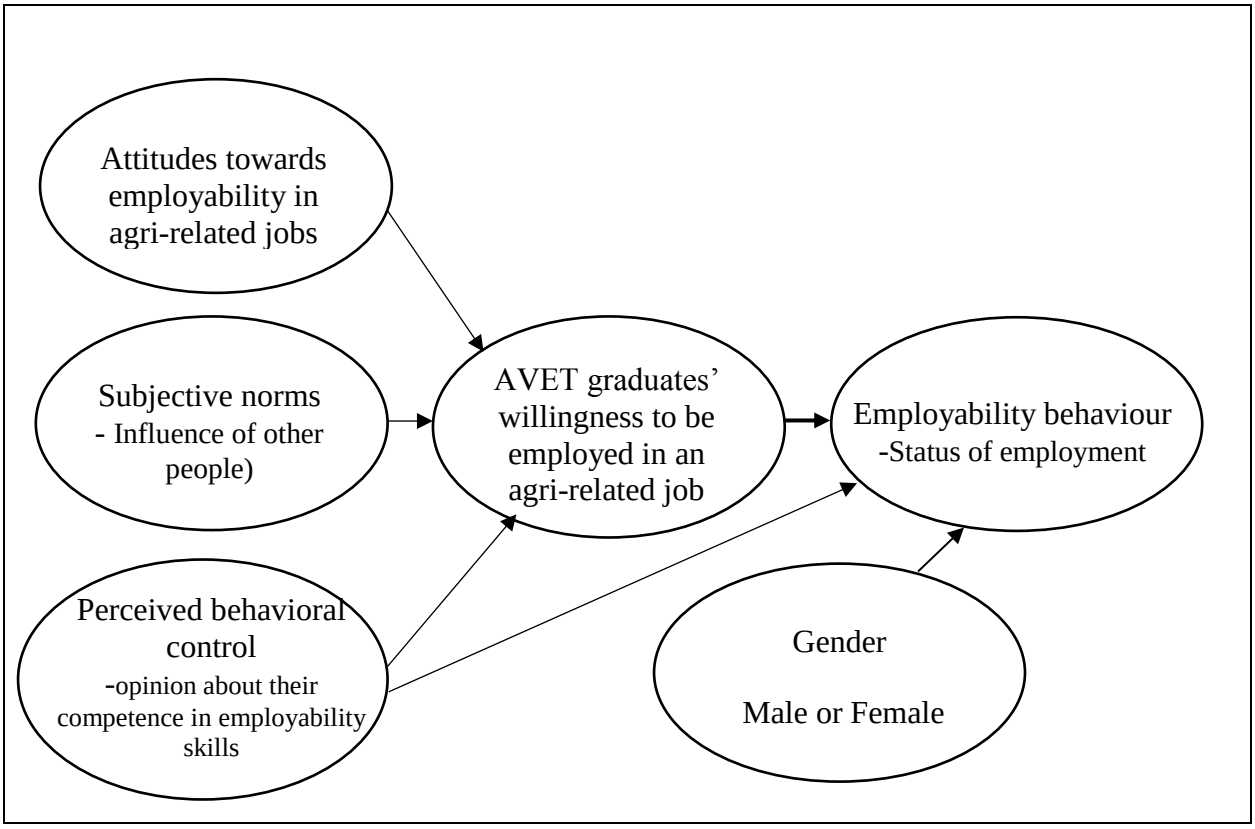


Figure 1.1: Conceptual Framework

Source: Adapted from; Ajzen, I. (2020)

Attitudes towards employability in agri-related jobs: refers to the opinions, beliefs, or perspectives that AVET graduates have regarding their potential to secure employment in

agricultural-related jobs. It encompasses their views on the opportunities, challenges, and overall outlook for obtaining work in the field of agriculture.

Subjective norms: It suggests that the expectations and opinions of others in their social environment may have a significant impact on whether these graduates are inclined to seek and obtain jobs within the agricultural sector.

Perceived behavioral control: suggests that the graduates' belief in their own capability to influence and control the process of obtaining agricultural-related employment is a crucial factor. If AVET graduates perceive that they have a high level of control over their actions and decisions related to job seeking in the agricultural sector, it may positively influence their intentions and efforts to secure employment in that field. On the other hand, low perceived behavioral control might lead to hesitancy or a lack of confidence in pursuing agricultural-related jobs.

Willingness to be employed in an agri-related job: refers to the enthusiasm or positive mindset of AVET graduates in seeking employment specifically within the agricultural sector. It suggests that these individuals are inclined and prepared to contribute their skills and knowledge gained through their AVET training to roles related to farming, agribusiness, agricultural research, livestock management, or other areas within the agricultural industry.

Employability behavior: refers to how AVET graduates engage in behaviors related to employability. It involves assessing whether or not they apply the knowledge and skills acquired during their AVET programs in real-world job-seeking scenarios within the agricultural sector.

Employment status: refers to the current work circumstances of individuals who have completed AVET programs. It involves examining whether these graduates have successfully secured employment in roles related to agriculture, whether they are actively seeking employment, or if they are currently not employed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Technical Vocational Education and Training implementation in Uganda

In Uganda, the term Technical Vocational Education and Training (TVET) refers to a kind of education and training that concentrates on giving people the competent skills, technical knowledge, and practical abilities needed for particular trades, professions, or occupations. TVET programs aim to close the gap between the demands of the workplace and formal education by providing hands-on training and relevant skills that enhance employability and support economic development. In Uganda, TVET implementation involves a structured approach to providing practical skills and knowledge to individuals, preparing them for various vocational and technical careers. For instance, through government initiatives, the Ugandan government has recognized the role of TVET in addressing unemployment, fostering economic growth, and meeting the labour market's demands (Kintu, *et al*. 2019a).

The Ministry of Education and Sports, through the Directorate of Industrial Training (DIT), oversees TVET policies and implementation. TVET programs in Uganda aim to provide a blend of theoretical understanding and useful abilities relevant to specific trades or professions. The curriculum is designed in oder to satisify the needs of different industries, including agriculture, engineering, business, and other vocational fields. TVET is offered through various institutions, including technical and vocational training institutes, polytechnics, and community-based training centers.

These institutions collaborate with industries to guarantee the skills taught conform to the requirements regarding the labor market (Okumu, *et al*. 2019).

Furthermore, TVET institutions often collaborate with businesses and industries to create a curriculum that reflects current industry needs. Internship programs and on-the-job training are

common components of TVET, providing students with real-world experience. Within the broader TVET framework, there is a specific emphasis on Agricultural Vocational Education and Training (AVET) to address the needs of the agricultural sector. AVET programs aim to equip individuals with practical skills related to farming, agribusiness, and agricultural technology (Agole, *et al*. 2022).

The DIT is also responsible for the certification and accreditation of TVET programs. Accredited institutions and programs adhere to national standards, making certain the standard and relevance of the education provided. TVET programs in Uganda often include components that encourage entrepreneurship among graduates, preparing them to start and manage their own businesses. Therefore, TVET in Uganda is seen as a crucial component of the education system, contributing to the country's efforts to reduce unemployment, promote economic growth, and address skills shortages in various industries. It aims to provide individuals with diverse pathways for career development and aid in the overall development of the nation (Kintu, *et al*. 2019b).

2.2 Agriculture Vocational Education Training (AVET) in Uganda

Agriculture Vocational Education Training (AVET) in Uganda refers to an education and training approach that focuses on providing practical skills and knowledge in the field of agriculture. The AVET system aims to equip people possessing the nececessary technical abilities and skills required for employment and entrepreneurship in the agricultural sector. AVET programs emphasize hands-on training and practical skill development in various aspects of agriculture. This includes crop production, animal husbandry, agribusiness, and other relevant areas within the agricultural value chain. The curriculum for AVET is designed to conform to the requirements of the agriculture sector. It incorporates theoretical knowledge along with practical, on-the-job training to ensure that learners are well prepared for the needs of the industry (Barigye, 2024).

AVET programs integrates modern agricultural technologies and practices to keep learners updated on the latest advancements in the field. This includes the use of farm machinery, precision agriculture, and other technologies that enhance productivity and sustainability. Collaboration with agricultural enterprises and industry stakeholders has been a common feature of AVET programs over the years. This ensures that the training provided is relevant to the current needs of the agriculture sector and increases the likelihood of graduates finding employment or establishing their own ventures (Okumu & Bbaale, 2019).

AVET in Uganda often includes components related to entrepreneurship and business management. Graduates are not only equipped with technical skills but also with the knowledge needed to start and manage their own agricultural enterprises. AVET programs aim to be inclusive, providing opportunities for individuals at various education levels. Whether for secondary school leavers or adults seeking to develop new abilities, AVET offers a pathway for diverse learners to engage in agricultural education and training (Agole, *et al*. 2022).

Successful completion of AVET programs leads to the issuance of certificates or diplomas, providing learners with formal recognition of their skills and qualifications. This recognition enhances their employability in the agriculture sector. AVET initiatives in Uganda often receive support from government agencies, including the Ministry of Education and Sports. Government backing helps ensure the sustainability and effectiveness of AVET programs. To facilitate practical training, AVET institutions have the required resource infrastructure and facilities. This include farm areas, laboratories, and workshops where learners can apply their skills in real-life situations. AVET programs undergo continuous review and improvement to stay responsive to changes in the agriculture sector. This adaptability ensures that graduates are equipped with skills that remain relevant over time (Jjuuko, *et al*. 2021).

2.3 Specific Employability Skills Prioritized by Employers

In Uganda, especially in rural areas such as South Western Uganda, agriculture remains the backbone of the economy, serving as the primary livelihood for a significant portion of the population. Employers seek both technical expertise and soft skills to ensure that graduates can effectively contribute to the agricultural value chain. Critical technical skills that are prioritized include knowledge of advanced farming techniques, climate-smart agriculture, agribusiness management, and crop and livestock management (Hassan, Mosi, & Kacharu, 2020). Additionally, due to the increasing focus on sustainability, employers are looking for candidates who are well-versed in sustainable farming practices and resource management (Murage & Mutiso, 2020). Furthermore, in an evolving agricultural landscape, soft skills such as communication, problem-solving, teamwork, leadership, and adaptability are equally essential. Employers highlight that agricultural graduates who exhibit strong interpersonal skills, critical thinking, and the ability to adapt to market-driven changes are in high demand (UNDP, 2021). These competencies are critical for driving productivity, fostering entrepreneurship, and managing agribusinesses effectively. In particular, business acumen, especially in marketing and managing agricultural ventures, has become a highly valued trait, as the agricultural sector increasingly depends on entrepreneurial graduates capable of creating and sustaining agribusinesses (Jobs in Uganda, 2024).

As the sector continues to modernize, the integration of climate-smart farming practices and advanced agricultural techniques is becoming more relevant. Skills in areas such as agro-processing, resource conservation, and environmentally sustainable practices are increasingly sought after, reflecting a global trend towards sustainable agricultural development (SNV, 2024). Thus, employers now demand a combination of these technical competencies alongside soft skills to ensure that graduates are fully equipped to thrive in the rapidly evolving agricultural industry.

The broader shift in employer expectations has led to a focus on soft skills in addition to traditional technical competencies. Research by Suarta, Karaba and Nwachukwu (2021) underscores the growing importance of skills such as communication, teamwork, problem-solving, and critical thinking in the workplace. These skills, increasingly emphasized alongside technical expertise, are viewed as essential for ensuring that graduates can effectively navigate the complexities of modern agricultural environments. Awwad (2021) further emphasizes the significance of leadership, relationship-building, and creative thinking as key employability skills that enhance graduates' preparedness for success in the agriculture sector. As the industry evolves, these attributes are becoming more crucial for fostering innovation and ensuring long-term sustainability in agricultural enterprises.

2.4 Competence of Graduates of AVET in Agriculture-Related Jobs

Graduates' technical competence refers to their self-perceived adeptness in applying specific technical skills pertinent to agriculture, (Colclasure, 2020). Hence, perceived level of competence involves graduates' subjective evaluations of their own abilities and readiness to carry out particular jobs and responsibilities associated with agriculture-related jobs (Suweidu, 2019). Employability skills on the other hand encompass a range of attributes and competencies that make individuals attractive to employers (Suleman, 2018). In agriculture-related jobs, these skills may include technical expertise in agriculture, problem-solving abilities, communication skills, teamwork, adaptability, and a strong work ethic (Truax, 2021).

AVET encompasses proficiencies in crop management, animal husbandry, equipment operation, and other specialized competencies in the field. A study carried out by Rinker *et al*. (2020) aimed at identifying the technical and professional skills desired by employers in the agricultural industry for graduates revealed that the most sought-after technical skills included verbal communication

and a general understanding of the agricultural sector. In terms of professional skills, employers prioritized flexibility, accountability, and relatedness. Likewise, Kenayathulla *et al*. (2019), in their examination of the disparities between perceived importance and achieved competence in employability skills in Malaysia, highlighted significant differences in technical skills, ethical skills, and teamwork.

According to Parrella *et al*. (2023), graduates' perceived proficiency in addressing challenges and making effective decisions within the agricultural workplace is indicative of their confidence in problem solving. This encompasses the ability to troubleshoot issues related to crop diseases, equipment malfunctions, or production inefficiencies. Affirming this, Ebner *et al*. (2020) conducted a study to examine skills gaps in the employability of graduates from Egyptian agriculture universities. Through principal component analysis, the authors identified, among 35 choices, the most valued skills from employers' perspectives. These included problem-solving ability, familiarity with technologies, application relating aacademic understanding to practical situations, moral judgement and cooperation, collaboration with individuals with a variety of backgrounds, drive and aptitude for learning.

Wilson *et al*. (2019) carried out research investigating the qualities sought by employers in recent agriculture and natural resources graduates. Their findings revealed that both graduates and supervisors identified problem solving and decision-making as the most crucial employability skills in the current job market. Similarly, Noel and Qenani (2013) explored the skills essential for success in the knowledge economy among agribusiness graduates. The study's outcomes highlighted the increasing significance of attributes like creativity and critical thinking. Sebastian (2020) conducted a study on the employability qualities that campanies in the agriculture sector require, and found that employers expressed that problem solving and analytics, visioning and creativity were the core employability skills needed for the industry. Additionally, Olowa, *et al*.

(2023) assessed the employability skills of agriculture graduates in Tertiary Institutions in Ogun State. The findings revealed graduates as the most crucial component of their work perceived in solving problems, creativity, innovation, and personal strengths. In addition, the employability abilities required of University of Missouri graduates in the College of Agriculture, Food, and Natural Resources were evaluated by Robinson and Garton (2008). The study revealed that graduates rated problem-solving, independence, and stress-resilience to be the most crucial aspects of their jobs.

.DiBenedetto and Willis (2020) elaborate that the perceived competence in communication involves graduates' self-evaluation of their ability to effectively convey information within the agricultural context, encompassing communication with colleagues, superiors, and stakeholders. As an illustration, a study conducted by Easterly *et al*. (2017) on skills required by students in real-world scenarios identified the most highly rated skills as active listening, clear communication, and problem-solving abilities. Similarly, in an assessment by Parrella *et al*. (2023) regarding the significance that agriculture students have on developing employable skills, students indicated that communication and decision-making skills held the highest importance.

Additionally, McNeill (2023), in a survey evaluating interpersonal, academic, and employability skills associated with participation in an agriculturally-based competitive team, found that communication skills, confidence, decision-making, experience, learned skills/knowledge, multi-tasking, personal drive, and problem-solving were all considered significant. Furthermore, Segbenya, *et al*. (2023) conducted a study on the demographic characteristics and employability skills among tertiary graduates in Ghana and found that female graduates had a more positive inclination towards emotional intelligence skills and written and verbal communication skills.

According to Truax (2021), graduates' perceived competence in teamwork and collaboration assesses their confidence in working harmoniously with others to achieve common goals in the

agricultural setting. This is crucial, especially in roles that involve coordination with fellow workers, researchers, or farm management. For instance, Hendrix and Morrison (2018), in their exploration of student perceptions of workforce readiness in agriculture, discovered that participants were most self-assured in their abilities to collaborate as a team, exhibit loyalty, and conduct themselves in such a way that demonstrates accountability as well as consideration for others.

Similarly, Khoshnodifar *et al*. (2020) investigated teamwork behavior in the context of the teacher, student, curriculum, and learning environment within the Iranian agricultural higher education system. Their findings indicated a noteworthy and constructive correlation between students' teamwork behavior and the components of the higher education system, encompassing the teacher, student, curriculum, and the learning environment. Saikia (2014) suggested that perceived proficiency in time management entails graduates' assurance in efficiently organizing and prioritizing tasks to meet deadlines and enhance productivity in agricultural work environments. For example, in a study by Buntat *et al*. (2013) emphasizing employability capabailities in the agricultural industry of Malaysia, the research identified five crucial elements of employability skills desired by industry employers. These elements encompassed time management, possession of relevant skills, collaboration with others, effective utilization of technology instruments and information systems, and sound decision-making.

Similarly, Ebner *et al*. (2020) explored employability skills gaps among graduates of Egyptian agriculture universities. The study unveiled that the most significant skills gaps among students included comprehensive knowledge of the sector, conflict resolution skills, time management, and the capacity to plan and organize task/project management abilities.

On the other hand, Olowa, *et al*. (2023) asserted that for graduates in roles that involve leadership or supervisory responsibilities, perceived competence in leadership skills involves self-assessment

of their ability to guide, motivate, and manage teams effectively. Degreenia and Sutton (2020) conducted an inquiry into the professional and leadership skills that employers in agricultural private and public sectors value in new graduates. The results of this study indicated that employers defined leaders as having the following skills: ability to motivate others, having character, being accountable and being visionary.

Effective leadership skills have been determined to be essential for accomplishment within the detailed and quickly evolving agriculture sector. "Employers frequently say they want to recruit potential leaders... who are good at stimulating their colleagues to take reasonable initiatives" (Purba, *et al*. 2020, pg. 69). Agriculture employers share the same aspirations. Smalley, et al. (2016) affirmed that "most agricultural employers report a need for effective leaders to aid in meeting their goals and objectives" (p. 76). Companies frequently choose to fill leadership roles with college grads. Nonetheless, there is sometimes disagreement between institutions and businesses over the attributes a graduate should have, particularly in terms of leadership.(Cunningham & Villaseñor, 2016). Despite widespread support for leadership development and improvement in educating students to be good leaders, the demanding nature of university curricula has all too frequently made it an afterthought of these initiatives (Kiersch & Peters, 2017).

In a study conducted to determine the level of importance of certain qualities assessed by department heads of colleges and employers, a discrepancy existed in the area of leadership (Smalley, *et al*. 2016). It was thought that leadership was "important" was significant to Department heads but not as much to employers. Consequently, universities have continued to overlook the leadership attribute that companies look for in applicants (Smalley, *et al*. 2016). Smalley, *et al*. (2016) observed that a "skills gap" exists among college graduates by claiming that students are not acquiring the competencies that businesses value most. Thus, it is imperative that

educational institutions work to help students become leaders and do not disregard this "call of duty" from society.

The ever-evolving, fast-paced, diverse culture that people today live in is one factor contributing to the increased need for leadership development (Smalley, *et al*. 2016).The need for agricultural leaders is great because the agriculture sector is always evolving (Soria, *et al*. 2019). Soria, *et al*. (2019) urged agriculture college to take the lead in helping their undergraduate students improve their leadership skills. Coleman, *et al*. (2021) agreed that additional effort must be made to further enhance and improve leadership development in departments of agriculture. What are the leadership skills needed by employers? Chan, *et al*. (2018) found that two essential traits for leaders to have are proble-solving and people abilities.

This study therefore identified the following to be studied among graduates of AVET: technical competence, fundamental employability skills, personal management skills, and teamwork skills.

2.5 Willingness of AVET graduates to apply attained employability skills

Several factors can influence agricultural vocational education and training (AVET) graduates' willingness to apply the employability skills they have acquired in the job market. These factors can vary based on individual characteristics, educational experiences, and external influences.

The critical factor impacting the willingness from graduates of agricultural vocational education and training (AVET) to utilize their employability capabilities in the job market lies in the relevance of these skills (Bodescu *et al*., 2024). In this context, relevance denotes the compatibility of the skills learned in training with the requirements and practical demands of the agriculture sector (Rinker *et al*., 2020). Various elements contribute to comprehending the significance of skill relevance. As indicated by Stewart (2021), employers in the agricultural sector actively seek graduates with skills directly applicable to industry tasks and challenges. Thus, graduates tend to

exhibit greater confidence in applying their skills when there is a close match between the skills acquired through vocational education and the specific needs of the industry (Stewart, 2021).

Furthermore, Ghimire, *et al*. (2022) posit that graduates are more willing to apply their employability skills if they perceive them as practical and directly applicable to the daily tasks and responsibilities they will encounter in agricultural roles. Practical skills are those that can be readily transferred from the training environment to real-world job situations (Wang & Wang, 2024). Additionally, Thompson, *et al*. (2021), explained that relevance could also include the ability of graduates to apply their skills to solve real-world problems commonly encountered in agricultural settings. For instance, a strong problem-solving capability enhances graduates' effectiveness in their roles and makes them valuable contributors to the industry (Rizwan, *et al*. 2018). The agricultural industry is dynamic, with evolving technologies, methods, and best practices. Therefore, Harun, *et al*. (2017) mentions that graduates are more likely to apply their skills when their training has covered the latest industry trends and practices. Staying current ensures that graduates are well prepared for the challenges they may face in the job market.

Additionally, Sebastian (2020) argues that if graduates perceive that their skills align with the expectations of potential employers, they are more likely to actively apply them in job applications and on the job. Thus understanding employer expectations helps graduates tailor their applications and showcase their relevant skills during the hiring process. Truax, *et al*. (2021), revealed that another factor is a competitive job market. This factor makes graduates to recognize the importance of having skills that set them apart from other candidates. Relevance in this context means having skills that are not only valuable but also sought after by employers, increasing graduates' chances of securing employment (Truax, *et al*. 2021).

Furthermore, Thwala (2017) mentioned that the quality of training is another crucial factor influencing agricultural vocational education and training (AVET) graduates' willingness to apply

their attained employability skills in the job market. For instance, high-quality training programs are characterized by curricula that are up-to-date, agreeable and pertinent to the current needs of the agricultural industry. Thus, Ndile (2018) revealed that graduates are more likely to apply their skills when they have been trained on most recent methods tools and trends in the field. This is because quality training involves practical, hands-on experiences that simulate real-world agricultural scenarios. Graduates who have had the opportunity to apply their skills in practical settings during their training are more confident in using those skills in actual job situations (Okeleke, 2017).

Additionally, Nwadinigwe, *et al*. (2018), point out that instructors who have direct experience or close connections with the agricultural industry contribute to the quality of training. This is because industry-engaged instructors can provide insights into the current challenges, expectations, and best practices, boosting the graduates' preparedness regarding the labor market. According to Edokpolor and Abusomwan (2019), quality training programs provide access to modern agricultural technologies. Thus, graduates trained with state-of-the-art equipment and technologies are better equipped to adapt to the technological demands of the job market, increasing their willingness to apply their skills. Likewise, Garba, *et al.* (2022) revealed that quality training often includes internships or work placements within the agricultural sector. Practical exposure to real work environments allows graduates to integrate their skills and gain hands-on experience, making them more willing to apply their skills in similar settings after graduation. Adamu, *et al*. (2023) mentioned that beyond technical skills, high-quality training programs place a strong emphasis on developing soft skills like teamwork, communication, and problem-solving. Thus, graduates with well-rounded skills are more appealing to employers, and they are more likely to actively apply their skills in various professional situations.

As outlined by Noor (2023), another crucial determinant affecting the readiness of Agricultural Vocational Education and Training (AVET) graduates to apply their employability skills in the job market is industry engagement. The author elaborates that the degree of connectivity between the vocational education and training program and the agricultural industry can impact graduates' readiness to apply their skills (Noor, 2023). This is because programs that incorporate industry experts, internships, and hands-on experiences are more likely to produce graduates who feel well-prepared for the job market (Bassah & Noor, 2023). According to Auta and Onwusuru (2022), engagement with the industry can expose graduates to entrepreneurial prospects within the agricultural sector. Graduates with an entrepreneurial mindset may be more inclined to employ their skills in establishing and managing their agricultural ventures. Hussain *et al*. (2021) further state that interaction with industry professionals, facilitated through events, workshops, and internships, enables graduates to establish a professional network. In the words of Kenayathulla (2021), networking can lead to job opportunities and mentorship, thereby making graduates more willing to actively apply their skills in the agricultural job market.

Moreover, as noted by Mabunda and Frick (2020), another element affecting the readiness of Agricultural Vocational Education and Training (AVET) graduates to apply their employability skills in the job market is the perception of job opportunities. This is because graduates' views on the employment possibilities in the agricultural sector can impact their enthusiasm to employ their skills (Mabunda and Frick, 2020). Positive outlooks on employment may motivate graduates to actively pursue and apply the skills acquired during their training (Yamada & Otchia, 2021). In line with this, Mesuwini *et al*. (2020) emphasize those optimistic perceptions of job opportunities within the agricultural sector can inspire graduates to actively search for employment and utilize the skills they have gained. Believing in the availability of job opportunities boosts confidence, making graduates more willing to apply for roles that compliment their training. Additionally, Mengistu (2017) contributes by stating that perceived job opportunities encompass more than just

traditional employment; they also include potential entrepreneurial ventures. Therefore, graduates may be more inclined to apply their employability skills if they perceive opportunities to establish their own agricultural businesses (Mengistu, 2017).

Furthermore, Omar *et al*. (2023) elucidate that a factor influencing the readiness of graduates from Agricultural Vocational Education and Training (AVET) to apply their employability abilities in the job market is self-efficacy. This is because graduates' confidence in their potential to apply the skills they have acquired, termed as self-efficacy, can impact their inclination to use those skills in the job market (Omar, 2023). A heightened belief in their capabilities increases the probability of graduates actively pursuing and applying their employability skills. Tadele and Terefe (2016) supplement this by stating that individuals with confidence are more inclined to embrace challenges and responsibilities, actively employing their skills in the job market. This is because strong self-efficacy is correlated with assurance in one's abilities. Consequently, graduates with elevated self-efficacy are more apt to trust in their competence to apply the skills obtained during AVET programs (Adeniyi *et al*., 2022). Mack and Honig (2023) posit that high self-efficacy is associated with a proactive approach to work and problem-solving. Therefore, AVET graduates with a robust belief in their ability to make a positive impact are more likely to take initiative, actively applying their employability skills to address challenges and contribute to their work environment (Azeem *et al*., 2022).

As per Wilkes and Burns (2019), a significant factor influencing the readiness employability abilities of graduates of Agricultural Vocational Education and Training (AVET) to use in the workplace is the presence of support systems. This indicates that the existence of support structures, such as career guidance, counseling, and mentorship, possesses the capacity to positively shape graduates' attitudes toward the application of their skills (Wilkes & Burns, 2019). Providing guidance on navigating the job market and insights into leveraging their skills can

enhance graduates' confidence levels (Freer, 2015). This underscores that the availability of resources like career counseling, job search tools, and industry-specific information contributes to graduates' readiness for the job market. Consequently, graduates with convenient access to such resources are more inclined to effectively utilize their employability skills. Akinde and Vitung (2020) assert that career services and job placement support offered by AVET programs or industry collaborations can markedly influence graduates' eagerness to actively apply their skills. This is because the awareness of having support in securing suitable employment can elevate graduates' confidence and motivation.

In the same vein, Han (2019) outlines an additional element impacting the preparedness of graduates of Agricultural Vocational Education and Training (AVET) to utilize their employability skills in the workforce, which is motivation and interest. The author elaborates that personal motivation and interest in the agricultural domain can propel graduates to actively employ their skills (Han, 2019). A genuine passion for the industry can result in a positive mindset and a heightened willingness to utilize acquired employability skills in the job market (Björk-Åman & Ström, 2023). For instance, graduates who possess intrinsic motivation exhibit a sincere interest regarding the topic and derive personal satisfaction from their work. According to Snel and Brouwer (2021), intrinsic motivation cultivates a willingness to actively apply employability skills, as graduates find enjoyment and fulfillment in applying their expertise. Stettner-Dutt (2019) further contends that motivated individuals are more prone to approaching tasks with innovation and creativity. This is because graduates driven to excel in their field may actively seek opportunities to apply their skills in unconventional ways, contributing to the advancement and enhancement of the agricultural sector (Stettner-Dutt, 2019).

Additionally, Walker and Hofstetter (2016) asserted that the desire of graduates of Agricultural Vocational Education and Training (AVET) to use their employable abilities in the labor market

is also influenced by technological improvements. The extent of exposure to and training in emerging agricultural technologies can shape graduates' preparedness to utilize their skills. Staying abreast of technological progressions can, therefore, increase graduates' competitiveness in the job market. Kirui and Kozicka (2018) elaborate that exposure to and training in contemporary agricultural technologies during AVET programs improve graduates' adaptability. This is because graduates acquainted with the latest tools and practices are more inclined to welcome and employ technological advancements in their professional roles. As per Mwila (2016), graduates who receive training in the latest agricultural technologies are more likely to feel self-assured and relevant in the job market. This is due to the fact that technological progress ensures that AVET programs equip graduates with current skills, fostering their willingness to apply this knowledge in technologically advanced work environments (Mwila, 2016).

Furthermore, Mabunda and Frick (2020) in their study found that factor influencing the readiness of Agricultural Vocational Education and Training (AVET) graduates to apply their attained employability skills in the job market is societal influence. The authors explained that societal norms and cultural expectations influence how individuals perceive and prioritize employability skills. Cultural values may shape attitudes toward certain skills, affecting graduates' choices and applications in the job market (Mabunda & Frick (2020). According to Adams (2019), the opinions and career choices of peers within the societal context can be influential. This is because positive endorsements or shared values among peers may encourage AVET graduates to actively apply their skills in line with societal expectations. Adams (2019) adds that the availability of mentors and role models within society can impact graduates' career decisions. Positive role models can inspire graduates to apply their skills in meaningful ways and pursue certain career paths.

Moreover, Edziwa and Blignaut (2022) in their study found that attitudes towards employability significantly influence AVET graduates' willingness to apply their attained employability skills in

the job market. The author found that positive attitudes towards employability instill motivation and confidence in graduates (Edziwa & Blignaut, 2022). This implies that a favorable mindset encourages them to actively seek and apply their acquired skills in real-world contexts. It can drive a proactive approach to job searching and career advancement. Additionally, Mengistu (2017) found that attitudes shape individuals' perceptions of their career goals and the value of their employability skills. As a result, graduates with positive attitudes are more likely to align their skills with their career aspirations, resulting in a clearer focus on applying those skills in relevant job opportunities (Mengistu, 2017).

In addition, Mengistu (2017) in their study found that the element influencing the willingness of TVET graduates to apply attained skills is the level of their competence. Mengistu (2017) revealed that employers seek candidates who possess the required competencies for specific roles. Thus, TVET graduates with a high level of competence are more likely to meet or exceed job requirements, making them attractive candidates in a competitive job market. This implies that competent TVET graduates are better equipped to perform their job duties efficiently and effectively. Similarly, Geressu (2017) in their study found that employers value individuals who are able to support the productivity of the organization from day one, and competence is a key indicator of this ability. This is because employers place confidence in TVET graduates who demonstrate high levels of competence. This confidence stems from the assurance that competent individuals can effectively handle job responsibilities and make positive contributions to the success of the organization.

In the same manner, Saibon, *et al*. (2019) in their study found that the factor influencing the willingness of TVET graduates to apply attained skills is the influence of other people, such as mentors, industry professionals, and alumni which provide valuable networking opportunities. Networking is crucial for job placement, and positive connections can open doors to employment

opportunities, referrals, and industry insights. Additionally, Aga and Singh (2022) in their study found that influential figures offer guidance and career advice based on their experience and knowledge of the industry. This advice can help graduates make informed decisions, choose suitable career paths, and align their skills with market demands, ultimately enhancing employability. Some AVET graduates may aspire to be entrepreneurs. Aga and Singh (2022) further revealed that if influential people, such as family members or community leaders, express support for entrepreneurship endeavors, graduates may feel more confident in pursuing self-employment, thereby expanding their employability options.

2.6 Factors that influence employability of AVET graduates

The employability of youths who graduated in Agricultural Vocational Education and Training (AVET) is affected by a number of variables that encompass various aspects of their education, skills, mindset, and the broader job market. According to Maireva *et al*. (2021), an entrepreneurial mindset significantly impacts the employability of Agricultural Vocational Education and Training (AVET) graduates. Those with such a mindset are better positioned to explore opportunities beyond conventional employment, displaying a greater inclination to initiate their agricultural ventures, thus contributing to self-employment and economic growth (Edziwa & Blignaut, 2022). This mindset fosters innovation and creativity, making graduates more likely to introduce inventive ideas and solutions to address agricultural challenges, rendering them valuable assets for employers seeking contributions to the industry's growth (Ndlovu & van Wyk, 2023).

Mariano and Tantoco (2023) emphasize that entrepreneurially-minded graduates demonstrate a ability for recognizing opportunities within the agricultural sector, identifying market niches or gaps and developing initiatives that may lead to new ventures or improvements in existing practices. Nyongesa (2022) asserts that entrepreneurship inherently involves a willingness to take calculated risks. Graduates with an entrepreneurial mindset are more prone to embracing such

risks, learning from failures, and demonstrating resilience in line of challenges. This resilience is particularly valuable in the dynamic and unpredictable agricultural industry. Additionally, according to Mutungi *et al*. (2023), entrepreneurially-minded graduates often possess skills in business development. They exhibit an understanding of market dynamics, customer needs, and the significance of effective marketing.

The employability of Agricultural Vocational Education and Training (AVET) graduates is also influenced by their adaptability and commitment to continuous learning (Mutua *et al*., 2019). This is attributed to the fact that the capacity to adapt to new challenges, coupled with a dedication to ongoing learning, significantly contributes to employability. Given the continuous evolution of industries, graduates who remain current with emerging trends and technologies become more valuable to employers (Rohanai *et al*., 2020). Thindwa (2016) notes the dynamic nature of the agricultural sector, marked by constant advancements in technology, practices, and market trends. Graduates showcasing adaptability are more adept at navigating and excelling in this ever-changing landscape.

Jamalludin *et al*. (2022) contend that adaptability is paramount for embracing and integrating technological changes in agriculture. Graduates who stay informed about the latest technological advancements and consistently upgrade their skills are in higher demand for roles requiring familiarity with contemporary agricultural technologies. Douglas *et al*. (2023) elaborate on the dynamic shifts occurring in agricultural markets due to changing consumer preferences, global demands, and environmental considerations. Consequently, graduates with adaptability can tailor their strategies to align with these changes, thereby enhancing their market relevance and overall employability (Douglas *et al*. 2023).

In any job market, effective communication, teamwork, and problem solving, among other soft skills, are indispensable. Therefore, graduates with robust interpersonal skills stand a higher

chance of achieving success in their careers (Ramamuruthy *et al*., 2021). The employability of Agricultural Vocational Education and Training (AVET) graduates is also affected by their communication and soft skills (Kigwilu & Bwanali, 2016). According to Deep *et al*. (2020), teamwork is integral to agriculture, particularly in activities like planting, harvesting, and livestock management. Consequently, graduates possessing strong communication and soft skills can collaborate efficiently with diverse team members, ultimately enhancing overall productivity.

Mesuwini *et al*. (2020) advocate that effective communication holds paramount importance in roles related to agribusiness, sales, or customer service. Graduates capable of clear communication and fostering constructive connections with customers significantly contribute to the prosperity of agricultural enterprises (Mesuwini *et al*., 2020). Furthermore, Rohanai et al. (2020) noted that agriculture entails interactions with various stakeholders, including farmers, suppliers, and government agencies. For that reason, graduates equipped with robust communication skills can engage effectively with these stakeholders, fostering positive relationships and facilitating cooperation. Ondieki *et al*. (2019) add that negotiations are inherent in agriculture, whether securing contracts, obtaining favorable terms from suppliers, or collaborating on projects. As a result, graduates proficient in negotiation skills may be very important in the success of negotiations, thereby benefiting their employers (Ondieki *et al*. 2019).

The employability of Agricultural Vocational Education and Training (AVET) graduates is affected by geographical mobility (Khambule, 2019). Geographical mobility empowers graduates to explore a broader spectrum of job opportunities across different regions. They can contemplate employment in areas where there is a heightened demand for agricultural expertise, diverse agricultural practices, or specific industry niches (Khambule, 2019). As outlined by Nzembe (2019), certain regions may exhibit distinct agricultural needs influenced by climate, soil types, and local market demands. Consequently, graduates with geographical mobility can tailor their

skills to match the specific requirements of diverse regions, thereby enhancing their prospects of securing suitable employment.

Johnstone (2021) elaborates that geographical mobility allows graduates to seize seasonal employment opportunities by relocating to regions where particular agricultural activities are more prominent during specific seasons. This ensures a more continuous and varied work experience for the graduates (Johnstone, 2021). In the perspective of Alam and Sharmin (2023), regions may encounter shortages in skilled agricultural labor. Therefore, graduates who are open to relocating to such areas can bridge crucial gaps inside the job market, rendering themselves more appealing to employers contending with workforce shortages (Alam & Sharmin, 2023).

The employability of Agricultural Vocational Education and Training (AVET) graduates is also shaped by government policies and support (Ugwoke *et al*., 2016). This implies that favorable government policies and initiatives aimed at bolstering the agricultural sector can significantly enhance graduates' employability by creating an atmosphere that is favorable for growth and generation of jobs. Meanwhile, Mesuwini and Bomani (2021) emphasized that government policies offering economic incentives to agricultural enterprises, such as subsidies, tax breaks, or grants, create an environment conducive to creation of jobs in the agricultural sector. Consequently, graduates may discover increased employment opportunities in regions where such favorable economic policies exist.

Adams (2019) added that governments frequently implement skill development programs to enhance the capabilities of the agricultural workforce. Thus, graduates who have benefited from such initiatives are more likely to possess up-to-date and relevant skills, thereby increasing their employability. Moreover, Yusop *et al*. (2023) uncovered that government policies supporting entrepreneurship in agriculture, including funding for start-ups and facilitating access to credit, can inspire graduates to establish their own agricultural ventures. This entrepreneurial support

significantly enhances their employability as prospective business owners. Similarly, Nurjanah and Ana (2022) noted that government initiatives providing information on the demand for agricultural skills, trends in the eployment market, and career opportunities can assist graduates in making well-informed decisions. This information guarantees that graduates are cognizant of employment prospects, allowing them to align their skills accordingly (Nurjanah & Ana, 2022). Furthermore, Mabunda and Frick (2020) revealed that policies incentivizing employment in rural areas may attract graduates to work in regions where their skills are in demand. Incentives such as housing support or additional benefits can indeed make rural employment more appealing (Mabunda & Frick, 2020).

Segbenya, *et al.* (2023) conducted a study on the demographic characteristics and employability skills among tertiary graduates in Ghana. The study found three most important employability skills to employers: the ability to work under pressure with less supervision, the application of computer and technical skills, and processing and interpreting numerical data. It is important to note that graduates have a responsibility to develop skills that will eventually enable them to find employment. A study by Low, *et al*. (2016) listed the individual employability skills that are required to enter the job market as: communication, problem-solving, decision-making, analytical and critical thinking, synthesizing information, teamwork; and interpersonal and continuous learning. However, Ali, *et al*. (2017) explored the factors influencing employability of vocational training graduates in Pakistan and found inherent mismatch in education, the need in the market, applicable experience, and job creation, policy and skills training influenced the employability of graduates in vocational fields.

2.7 Research Gaps

The studies referenced in the text, while informative and insightful, predominantly focus on agricultural education and employability from a broad or global perspective rather than honing in

on the unique circumstances surrounding Agricultural Vocational Education and Training (AVET) in South Western Uganda. For instance, research such as that conducted by Suarta, Karaba and Nwachukwu (2021) and Maireva *et al*. (2021) examines global trends in agricultural education and soft skills development. Similarly, Mugisha (2021) and Bazaara, Kaija and Mutumba (2019) explore challenges in other contexts without addressing the localized realities of South Western Uganda. This study was undertaken to fill this research gap by investigating the factors affecting the employability of AVET graduates in South Western Uganda.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Study Area

The study was conducted in four representative agricultural training institutions in the western region of Uganda that are located in the districts of Mbarara, Rwampara and Sheema. The selected institutions are strictly agricultural training institutions with certificate and diploma levels.

Graduate students at diploma and certificate levels from the year 2018 to 2019 were considered for the study. The AVET institutions of interest included: Kyera Agricultural College, Kitagata Farm Institute, Rwentanga Farm Institute, Rwampara Farm Institute.

Table 3.1: Study Area and Courses

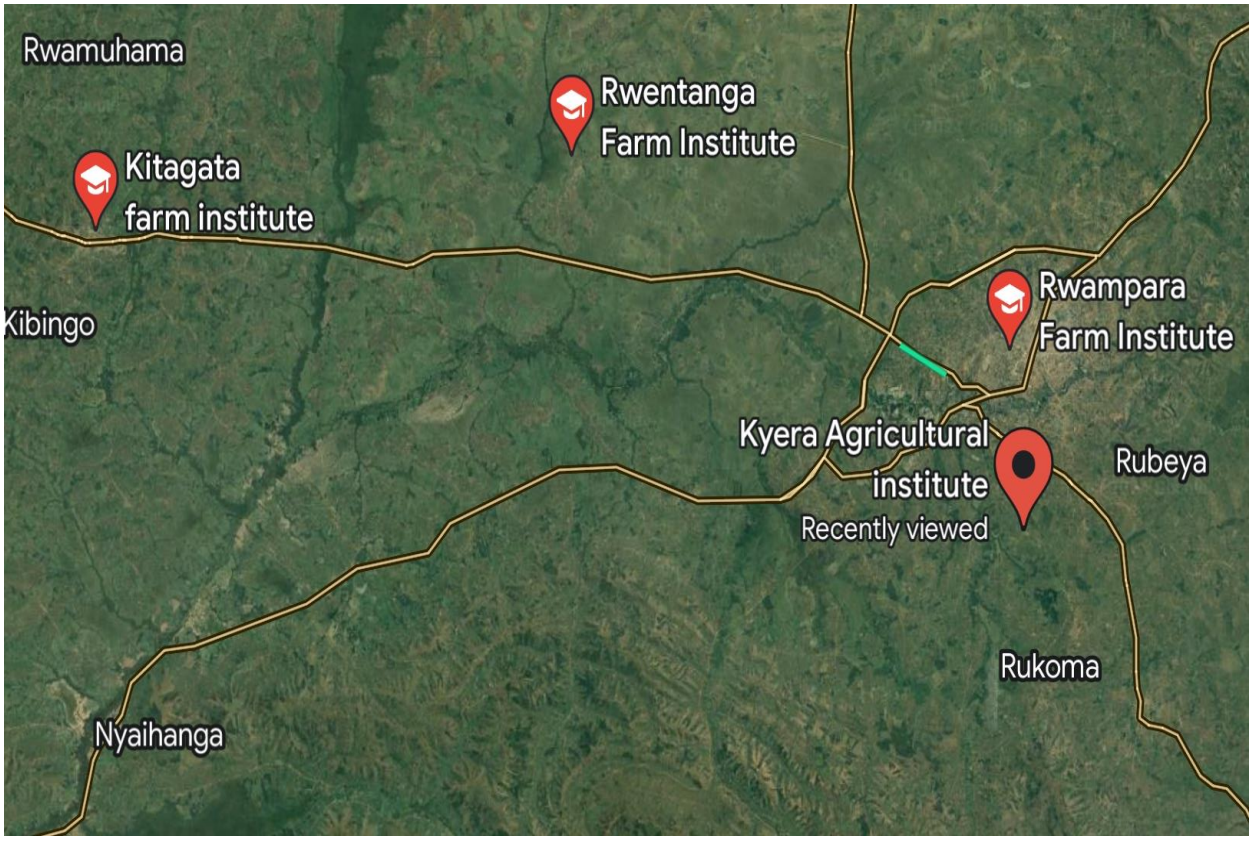
Name of Institution	**Courses**		**District**
	Diploma	**Certificate**	
Kyera Agricultural College	Diploma in Agribusiness Management	National Certificate in Agricultural Production	Mbarara
	Dipoma In Horticulture Crop Production and Management		
	Diploma in Crop Production and Management		
	Diploma in Animal Production and Management		
Kitagata Farm Institute		National Certificate in Agricultural Production	Sheema
Rwentanga Farm Institute	Diploma in Animal Production and Management Diploma in Crop Production and Management	National Certificate in Agricultural Production	Mbarara
Rwampara Farm Institution	Diploma in Animal Production and Management Diploma in Crop Production and Management	National Certificate in Agricultural Production	Rwampara

Figure 3.1: Map of Uganda Showing Study Area Districts

LENGEND

Location	**124**	**125**	**128**
Districts	Sheema	Mbarara	Rwampara
Arrows	→	→	→
Institutions	Kitagata Farm Institute	Kyera Agricultural College, Rwentanga Farm Institute	Rwampara Farm Institution

Figure 3.2: Map Showing the Study Area



3.2 Research Design

This study adopted a cross-sectional research design, which is a type of observational study that collected data from a population at a single point in time to analyze relationships between variables. Cross-sectional research design involved collecting data from a sample of subjects at a single point in time to understand the prevalence of certain variables or relationships between variables within a population (Babbie, 2016). It captured a snapshot of a population's characteristics, behaviors, or attitudes at a specific moment, allowing researchers to analyze patterns and associations without considering changes over time (Neuman, 2014).

Cross-sectional studies often employed surveys, questionnaires, interviews, or observational methods to collect data from a representative sample of the population of interest (Fowler, 2013). Data collected through cross-sectional designs could be analyzed using descriptive statistics to summarize population characteristics and inferential statistics to identify associations between

variables (Creswell & Creswell, 2017). Cross-sectional research design was chosen for this investigation since it is relatively quick and cost-effective compared to longitudinal designs, making it suitable for studying large populations or diverse groups (Bryman, 2016). It provided insights into the prevalence of variables and associations between variables at a specific point in time.

In this study, the cross-sectional design involved collecting data from a sample of graduate youths who had completed AVET programs in South Western Uganda in the years 2018 and 2019. This allowed the researcher to capture a snapshot of their current status, including their employment status, skills, knowledge, and other relevant factors. The study aimed to understand the prevalence of employability among AVET graduate youths and explore the relationships between their educational background, skills acquired during training, and their ability to secure employment in the agricultural sector. By collecting data on these variables simultaneously, the researcher analyzed the associations between them.

3.3 Study Population

The study population comprised of 569 graduates who completed AVET Diploma and Certificate programs in the years 2018 and 2019 from Kyera Agricultural College, Kitagata Farm Institute, Rwentanga Farm Institute, and Rwampara Farm Institute. The participants where reached out to through direct phone conctacts obtained from the Examination Information Management System of Uganda Business and Technical Examinations Board the Asessment body. This study population enabled assessing the outcomes and effectiveness of the education and training they received. Furthermore, targeting 2018 and 2019 graduates ensured that the study captures the post-education period. This timeframe allows for a more accurate assessment of how well graduates are applying their skills in the job market shortly after completing their training. Table 3.2 gives the summary of the study population.

Table 3.2: Study Population

Institutions in Mbarara City		2019	2018
Kyera Agricultural College	Diploma	42	41
	Certificate	40	47
Kitagata Farm Institute	Diploma	00	00
	Certificate	84	73
Rwentanga Farm Institute	Diploma	53	42
	Certificate	48	14
Rwampara Farm Institute	Diploma	00	00
	Certificate	52	33
	TOTAL	**319**	**250**
	G-total	**569**	

As seen from table 3.2 above, the study population is 569 diploma and certificate graduates obtained from two years of 2018 to 2019.

At Diploma level, AVET graduates were trained in introduction to livestock farming, environment & animal interaction, selection and breeding of animals, animal nutrition, farm structures and workshop skills, principles of agricultural economics, rural sociology and agriculture extension methods, introduction to computer applications, introduction to anatomy and physiology, agricultural marketing and resource management, communication and research methods, veterinary parasitology, hides and skins technology, pasture production and management, piggery, poultry, small ruminants and rabbit production, veterinary pharmacology and toxicology, disease investigation control and veterinary public health, dairy and beef production, farm accounting and agricultural statistics, agricultural extension, program planning and evaluation, farm practices and special projects, crop production and management, invasive alien species, dairy science and

technology, diseases of livestock, agricultural enterprises, project planning and management, nutrition and family life education, and industrial training and outreach. On the other hand, at Certificate level, the AVET graduates were trained in crop production and management, land and soil management, rearing and management of livestock, basic science, occupational safety and health, functional mathematics, life skills, computer applications, extension services and farm management, agroforestry, siliviculture, apiculture and environmental conservation, farm machinery and appropriate technology, construction and maintenance of farm structures, customer care and Agri-business, value addition and marketing of farm products, basic Kiswahili,

3.4 Sample Size Determination

A sample of a study is the group of subjects in the study. The sample was representative of the study population in terms of selection procedure and number of participants for the research study to have confidence in the study results. The sample size was determined based on the principles of statistical significance, considering the variability within strata and the desired level of precision. The aim was to achieve a sample size that provides reliable insights into the effectiveness of AVET in determining employability.

Thus, Solvin's formula was utilized to ascertain the sample size from a population of 569 participants.

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

Where n = sample size; N = Population size; e = margin of error (at 0.05) level of significance.

$$n = \frac{569}{(1 + 569(0.05)^2}$$

$$n = \frac{569}{(1 + 569(0.05)^2}$$

$$\boldsymbol{n = 234 \approx 235}$$

Therefore, the sample size of this study is 235 respondents.

3.4.1 Response Rate

A total of 235 questionnaires were disseminated to respondents, however 199 questionnaires were returned thus making a response rate of 84.7%, which was adequate enough for the researcher to proceed with the data analysis.

The researcher acknowledged that non-responses might influence the study's findings in various ways. Given the response rate of 84.7%, which was deemed adequate, the researcher believed the data provided a strong foundation for analysis. Nonetheless, the possibility remained that non-responses introduced bias or reduced the generalizability of the results, especially where non-respondents differed significantly from those who responded in terms of important characteristics or viewpoints related to the research. For example, where certain groups failed to return their questionnaires, the data could not capture the full range of perspectives available in the sample.

To address this, the researcher took proactive steps to reduce non-responses, including sending reminder invitations and offering incentives to boost participation. The researcher also considered the possibility that non-responses were more prevalent in specific subgroups. In such cases, further checks were made to determine whether missing responses were linked to particular variables, helping to identify and account for any biases in the analysis. Despite these concerns, the 84.7% response rate was high enough to minimize the potential effects of non-responses on the study's overall reliability and validity.

3.5 Sampling Techniques

The research employed a stratified random sampling approach to ensure the representation of participants from diverse Agricultural Vocational Education & Training (AVET) programs and institutions in Western Uganda. The rationale for utilizing stratified random sampling lies in its potential to enhance precision by minimizing variability within homogeneous strata, leading to more accurate and dependable population parameter estimates (Sharma, 2017). Each stratum, formed based on distinct AVET programs (Diploma & Certificates) and institutions, was

represented in the sample, ensuring a comprehensive reflection of the population's diversity and yielding more thorough and representative outcomes.

The stratification process involved categorizing the population into groups or strata based on pertinent characteristics such as level of education considering certificate and diploma and different AVET programs offered at the respective levels of training in addition to training institutions. Subsequently, the study determined the proportionate sample size for each stratum based on the overall distribution of graduates in each category, as outlined in Table 3.1. This approach guaranteed adequate representation of each stratum in the final sample. Within each stratum, participants were selected using the simple random sampling method, employing random number generators. The choice of basic random sampling was grounded in its capacity to offer every individual or give every member of the populace similar opportunities for inclusion in the sample, ensuring a fair representation of the entire population (Singh & Masuku, 2014).

A total of 235 graduates from a pool of 569 across the chosen four AVET institutions were selected in smaller subgroups of certificate and diploma programs of training. Each graduate was assigned a unique number from 1 to 569. Subsequently, a random number generator was employed to generate 235 random numbers within the 1 to 569 range. These generated numbers were then matched with the assigned numbers of graduates to identify the final sample of 235 respondents. The adoption of random number generators was preferred due to their ability to ensure equal chances for every unit in the population to be selected, thereby minimizing bias in the sample selection process (Oribhabor & Anyanwu, 2019). In order to reach out to the students who had left their training institutions, information of the graduates including their phone contacts was obtained from Examination Information Managemnet System of Uganda Business and Technical Examinations Board. Being the assessment body that graduates the trainees, is in possession of up-to-date information of the graduates.

3.6 Data Collection Methods

The study used survey method for collecting primary data from a sample 235 AVET graduates through structured questionnaires. The questionnaires were developed in Kobo collect electronic software and administered electronically to the respondents by the researcher. This tool was used due to its affordability and speed, which enables it to quickly gather a substantial amount of data from a large number of participants.

Questionnaires were used to collect primary data on demographic characteristics, perceived levels of AVET graduates' competence in employability skills in agriculture-related jobs, graduates' willingness to work in agriculture-related jobs, and factors that affect their employability after AVET. Questionnaires were preferred in this study because they are a quick and efficient way to gather information from a big number of participants. They also allow researchers to gather information from a diverse sample within a relatively short period (Patten, 2016). Additionally, respondents can remain anonymous when filling out questionnaires, promoting more honest and candid responses. This anonymity encourages participants to share sensitive information without fear of judgment (Patten, 2016).

Furthermore, the study used multiple-choice questions to capture information about the the respondents demorgraphic characteristics such as age, gender, education, employment status, and work experience. On the other hand, the study used a three-Likert scale of 1-3 (i.e. 1 = Low competence; 2 = Average competence; 3 = High competence) to capture information about perceived levels of competence of AVET graduates, while (1=Disagree, 2 = neutral; 3 = Agree) was used to capture information about the factors influencing AVET graduates' willingness to apply attained employability skills, and the factors that influence employability of youths who graduated in AVET. A 3-point Likert scale was favored in this investigation since it is simple and easy for respondents to understand. Thus, with fewer response options, participants can quickly

choose the category that best represents their opinion or attitude. In addition, the limited number of response options helps reduce ambiguity. Respondents are forced to express a clear preference or stance, avoiding the middle ground often associated with larger Likert scales (Wu & Leung, 2017).

3.7 Data Analysis and Management

The researcher entered the raw data they had collected into the Statistical Package for the Social Sciences (SPSS). As is typical with raw data, it contained errors, inconsistencies, and missing values. The researcher embarked on a process of data cleaning, which entailed identifying and rectifying these issues to uphold the accuracy and dependability of the data. This process involved tasks such as eliminating outliers, standardizing variables, and filling in missing values. Once the data had been cleaned and prepared, the researcher utilized statistical techniques to analyze the data and address their research inquiries. This involved employing common quantitative analysis methods such as descriptive statistics and inferential statistics.

Univariate Analysis: This analysis aimed to examine the characteristics of individual variables. Descriptive statistics, including frequencies, and percentages were applied to summarize the main features of the data. Through this approach, the researcher was able to gain a clear understanding of the data distribution, such as the demographic profile of participants (e.g., age, gender, education level) and the employment status of AVET graduates. The results were presented in tables.

Multivariate Analysis: The researcher used logistic regression analysis to explore how multiple factors collectively influence employability outcomes. This method helped identify which variables most strongly affected the probability of employment for AVET graduates. Variables that showed significant coefficients or odds ratios were deemed to have a strong connection with the likelihood of securing a job. The insights gained from this analysis were essential for

understanding the key factors influencing the will of graduates to apply attained employability skils, factors influencing their employability and for formulating recommendations to enhance job prospects in the agricultural sector.

The results were presented in tables. The logistic regression analysis's findings shed light on the variables that contributed to the employability of AVET graduates. Variables with significant coefficients or odds ratios indicated a strong association with employment status. The researcher interpreted these findings to understand the relative importance of each factor.

3.7.1 Analysis Of Objective One

Objective one: To establish the perceived levels of competence of graduates of agricultural vocational education & training in employability skills in agriculture-related jobs.

In this objective one, univariate analysis involved creating frequency distributions, which showed the number and percentages of graduates falling into different categories of perceived competence levels. The researcher created a frequency table to visualize the distribution of responses regarding employability skills. This helped to identify the most common perceived competence levels.

3.7.2 Analysis Of Objective Two

Objective two: To assess the factors that influence agricultural vocational education & training graduates' willingness to apply attained employability skills in the job market.

Data pertaining to the independent variables, including level of competence, attitude towards employability, and behavioral control, as well as the dependent variable, willingness to apply skills, were acquired from graduates of agricultural vocational education and training (AVET). Notably, the dependent variable was precisely encoded as a binary dichotomous variable, with a value of 1 signifying willingness to apply skills, while a value of 0 denoted a lack of willingness to apply skills. Subsequently, a binary logistic regression model was accurately formulated, wherein the dependent variable (willingness to apply skills) was regressed against the independent

variables (level of competence, attitude towards employability, behavioral control). This modeling approach facilitated the investigation of the relationships between the specified variables.

The model was represented as:

$$logit\ (P) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon_i$$

Where:

$logit\ (P) =$ the natural logarithm of the odds ratio of willingness to apply skills.

β_0 = the intercept term.

$\beta_1 \beta_2 \beta_3$ = the coefficients representing the effect of each independent variable on the log odds of willingness to apply skills.

X_1 = level of competence

X_2 = attitude towards employability

X_3 = behavioral control

ε_i = the error term

3.7.3 Analysis Of Objective Three

Objective three: To determine the factors that influence employability of youths who graduated in agricultural vocational education & training in South western Uganda.

The gathered data underwent a thorough cleaning process to ensure correct formatting and the elimination of errors or missing values. Subsequently, the data were structured into variables, where the variable that is dependent (employment status) was coded as a binary dichotomous variable, with 1 denoting employed and 0 denoting unemployed individuals. Following this, a binary logistic regression model was established, with the dependent variable (employment status) being predicted by the independent variables (technical competence, fundamental skills, personal skills, team skills).

The model equation was represented as:

$$logit\ (P) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i$$

Where:

$logit\ (P) =$ the natural logarithm of the odds ratio of being employed.

β_0 = the intercept term.

$\beta_1 \beta_2 \beta_3$ = the coefficients representing the effect of each independent variable on the log odds of employment.

X_1 = technical competence

X_2 = fundamental skills

X_3 = personal skills

X_4 = team skills

ε_i = the error term

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Characteristics of Respondents

The traits of the participants included sex, age, employment status, work experience and involvement in agricultural activities. The following Tables give the summary of the findings.

Table 4.1: Characteristics of Respondents

Characteristics (N=199)	Frequency	Percent (%)
Sex		
Female	55	27.6
Male	144	72.4
Age (Years)		
20-25	53	26.6
26-30	106	53.3
31-35	31	15.6
36-40	9	4.5
Employment		
No	88	44.2
Yes	111	55.8
Involvement in Agricultural Activities		
Yes	175	87.9
No	24	12.1

Source: Primary data (2023)

The finding from Table 4.1 indicates that there is a notable gender disparity within the sample population. Specifically, it reveals a distinct male majority, with 144 individuals, constituting approximately 72.4% of the total sample, identified as male.

Furthermore, Table 4.1 shows that the study primarily represents a younger demographic, with the vast majority (79.9%) of respondents clustered within the 20-30 age range.In addition, a majority of the respondents, comprising 55.8%, are currently employed, while a smaller portion, accounting for 44.2%, are not currently employedSimilarly, Table 4.1 shows that majority of the respondents,

comprising 87.9%, are engaged in agricultural activities, while a smaller proportion, accounting for 12.1%, are not involved in such activities.

Table 4.2 Work Experience of Respondents

Work experience	Frequency	Percent (%)
Years of experience		
1-2	59	29.6
3-4	90	45.2
5-6	48	24.1
7-9	2	1.0
Total	**199**	**100.0**
Place of employment		
Public organization	13	12.1
Private organization	40	36.2
Civil Society Organization	10	9.0
Self-Employed	48	42.7
Total	**111**	**100.0**

The majority of respondents (74.8%), reported having work experience within the range of 1-4 years. Only 1% of respondents had work experience within the range of 7-9 years.

There was a varied distribution of employment among the surveyed population. Approximately 57.3%, is involved in employment across public, private sector, and civil society domains, while a noteworthy 42.7% is engaged in self-employment.

4.2 Competence of Graduates of AVET in agriculture-related jobs

This section provides the descriptive statistics of objective one, which was to establish the perceived levels of competence of graduates of agricultural vocational education & training in employability skills in agriculture-related jobs. The AVET graduates were requested to rate their level of competence in various agricultural skills such as, personal management skills, fundamental employability skills, communication skills and team work skills, table 4.2 shows the

summary of the findings. **LC** refers to low competence; **MC** refers to moderate competence; **HC** refers to high competence.

Table 4.3: The Perceived Levels of Competence of AVET Graduates

Employability skills	**LC**	**MC**	**HC**
Technical competence	**n(%)**	**n(%)**	**n(%)**
Soil & water management practices	112(56.3)	33(16.6)	54(27.1)
Annual & perennial crop production	101(50.8)	32(16.1)	66(33.2)
Vegetable Growing	111(55.8)	32(16.1)	56(28.1)
Fruit Growing	112(56.3)	32(16.1)	55(27.6)
Growing of Spice	135(67.8)	30(15.1)	34(17.1)
Mushroom Growing	133(66.8)	20(10.1)	46(23.1)
Flower growing	147(73.9)	24(12.1)	28(14.1)
Skills in entrepreneurship	114(57.3)	36(18.1)	49(24.6)
Agro-Forestry	99(49.7)	44(22.1)	56(28.1)
Pasture Management	98(49.2)	33(16.6)	68(34.2)
Goat & Sheep Production	72(36.2)	40(20.1)	87(43.7)
Cattle production	90(45.2)	31(15.6)	78(39.2)
Poultry production	99(49.7)	31(15.6)	69(34.7)
Piggery production	87(43.7)	40(20.1)	72(36.2)
Rabbit Production	124(62.3)	25(12.6)	50(25.1)
Fish Farming	146(73.4)	36(18.1)	17(8.5)
Beekeeping	86(43.2)	30(15.1)	83(41.7)
Silk Worm Production	90(45.2)	41(20.6)	68(34.2)
Farm Structures	77(38.7)	43(21.6)	79(39.7)
Farm Mechanization	72(36.2)	40(20.1)	87(43.7)
Farm Management	89(44.7)	31(15.6)	79(39.7)
Agricultural Extension services	81(40.7)	34(17.1)	84(42.2)
Average	**51.6%**	**15.9%**	**31.0%**
Fundamental employability skills			
Effective communication	128(64.3)	39(19.6)	32(16.1)
Management of Information	86(43.2)	44(22.1)	69(34.7)
Analytical/critical thinking skills	108(54.3)	36(18.1)	55(27.6)

Problem-solving ability	83(41.7)	47(23.6)	69(34.7)
Leadership skills	111(55.8)	34(17.1)	54(27.1)
Average	**51.9%**	**20.1%**	**28.0%**
Personal Management skills			
Positive attitudes and behaviors towards work	95(47.7)	39(19.6)	65(32.7)
Responsibility	98(49.2)	38(19.1)	63(31.7)
Adaptability	85(42.7)	33(16.6)	81(40.7)
Learning Continuously	77(38.7)	43(21.6)	79(39.7)
Working Safely	74(37.2)	39(19.6)	86(43.2)
Average	**43.1%**	**19.3%**	**37.4%**
Teamwork skills			
Working with others in projects/tasks	98(49.2)	38(19.1)	63(31.7)
Interpersonal skills	107(53.8)	30(15.1)	62(31.2)
Average	**51.5%**	**17.1%**	**31.5%**
O**verall average**	**49.5%**	**18.1%**	**32.0%**

Source: Primary data (2023)

The perceived overall levels of competence among AVET graduates about half of the graduates had either moderate (18.1%) or high competences in employability skills (32%). Regarding Technical competence, the findings established that about a third (31%) had high competences in the various agricultural technical skills. With respect to Fundamental employability skills, on average, about one-fourth of the surveyed population reported a high level of proficiency in these essential employability skills. Management of information and problem-solving ability exhibit relatively higher percentages of high competence compared to other skills. On the other hand, slightly more than half of the surveyed population demonstrates a lower level of proficiency in these essential employability skills. Effective communication and leadership skills show relatively higher percentages of low competence compared to other skills. Personal management skills, more than half of the respondents (56.7%) had either moderate competence (19.3%.) or high competence

(37.4%) in personal management skills. Concerning Teamwork skills, about a third (31.5%) of the respondents reported high competence levels while 17.1% indicated moderate competence levels.

4.3 Willingness of AVET Graduates to apply attained employability skills

This study employed binary logistic regression to determine the influence of attitudes towards employment in agriculture related job, influence of other people to take on agriculture related job, and the graduates perceived competences in performing agriculture related job on the likelihood of the AVET graduate apply attained employability skills in the job market. The findings are presented in table 4.3 & 4.4. for the testing the goodness of fit of the model and table 4.5 for the results of the the model.

Table 4.4: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	71.521	0.519	0.525

According to the -2 Log likelihood measure of the goodness-of-fit of the logistic regression model, the value of 71.521 suggests that the model provides a relatively good fit to the data. The *Cox & Snell R Square* which estimates the proportion of variance explained by the model, the value of 0.519 indicates that the predictor variables included in the model accounts for approximately 51.9% of the variance in the outcome variable which is willingness to apply attained employability skills in the job market. *Nagelkerke R Square***,** an adjusted version of the Cox & Snell R Square that provides a more accurate estimate of the variance explained by the model . The value of 0.525 suggests that the model explains approximately 52.5% of the variance in the outcome variable.

The Hosmer and Lemeshow Test

Table 4.5: Goodness of Fit

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	9.713	6	0.137

The chi-square statistic measures the discrepancy between the observed and expected frequencies of the outcome variable across groups or categories. In this case, the chi-square value of 9.713 indicates a moderate discrepancy.

The significance level of 0.137 suggests that the chi-square value is not statistically significant at the conventional significance level of 0.05. This indicates that there is no strong evidence to reject the null hypothesis of good model fit, indicating that the model provides a reasonable fit to the data.

Table 4.6: Binary Logistic Regression Model

Variables	Odds Ratio (OR)	Sig.	95% C.I.for OR	
			Lower	Upper
Attitudes towards employability	1.491	0.026*	0.844	2.633
Influence of other people	0.874	0.048*	0.490	1.559
Perceived behavioral control	1.301	0.013*	0.693	2.442
Constant	0.455	0.399		

Table 4.5 shows that the odds ratio associated with attitudes towards employability was signigicant. The odds ratio of 1.491 suggests that for every one-unit increase in attitudes towards employability, the odds of being willing to apply attained skills in agricultural-related jobs increase by 1.49. Furthermore, the odds ratio associated with influence of other people was 0.874. The significance level (Sig.) associated with influence of other people was found to be 0.048. Therefore, the odds ratio of 0.874 indicates that for every one-unit increase in influence of other people, the odds of being willing to apply attained skills in agricultural-related jobs decrease by approximately 0.87.Similarly, the odds ratio associated with perceived behavioral control was

1.301. The significance level (Sig.) associated with perceived behavioral control was found to be 0.013. Therefore, the odds ratio of 1.301 suggests that for every one-unit increase in perceived behavioral control, the odds of being willing to apply attained skills in agricultural-related jobs increase by 1.30.

The findings show that attitudes towards employability (OR =1.491, Sig. = 0.026), influence of other people OR =0.874, Sig. =0.048), and perceived behavioral control (OR =1.301, Sig. =0.013) positively influenced an AVET graduates' willingness to apply attained employability skills in the job market.

4.4 The factors that influence employability of youths who graduated in AVET

Binary Logistic Regression was used in this investigation to determine the variables that influenced the likelihood of the AVET graduate to be employed. The findings are presented in table 4.7 & 4.8. for the testing the goodness of fit of the model and table 4.5 for the results of the the model.

Table 4.7: Model Summary

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	67.525[a]	0.640	0.653

The -2 Log likelihood value, which measures the overall fit of the model to the data, was found to be 67.525 suggesting that the model adequately explains the observed data. The Cox & Snell R Square value, was 0.640 which suggests that the predictor variables included in the model can account for approximately 64% of the variance in the dependent variable. The Nagelkerke R Square value, an adjusted version of the Cox & Snell R Square, was found to be 0.653, which suggests that the predictor variables i.e. gender, technical competences, findamental employability skills, personal management skills and teamwork skills included in the model explain approximately 65.3% of the variance in the dependent variable (employability). The findings of the regression analysis indicate that the model has a reasonably good fit to the data and

demonstrates a significant degree of explanatory power. The Cox & Snell R Square and Nagelkerke R Square values suggest that the predictor variables included in the model collectively account for a substantial portion of the variability in the dependent variable.

Table 4.8: Goodness of fit

Hosmer and Lemeshow Test		
Chi-square	df	Sig.
4.789	8	0.780

The chi-square statistic was 4.789 with 8 degrees of freedom, and the associated p-value was 0.780. Since the p-value (0.780) is greater than the conventional significance level of 0.05, we fail to reject the null hypothesis. This suggests that there is no evidence to suggest that the logistic regression model fits the data poorly. In other words, the observed and expected frequencies of the dependent variable do not significantly differ across the groups or categories, indicating that the logistic regression model provides a good fit to the data.

Table 4.9: Binary Logistic Regression Model

		Odds Ratio (OR)	Sig.	95% C.I.for OR	
				Lower	Upper
Step 1[a]	Gender	0.715	0.254	0.401	1.273
	Technical competence	1.211	0.001*	0.769	1.908
	Fundamental employability skills	1.412	0.029*	0.953	2.091
	Personal Management skills	0.807	0.025*	0.563	1.158
	Teamwork skills	1.216	0.041*	0.813	1.818
	Constant	0.423	0.260		

The odds ratio associated with *Technical competence skills* was found to be 1.211. The odds ratio of 1.211 indicates that for every one-unit increase in Technical competence skills, the odds of being employed (compared to being unemployed) increase by approximately 1. The significance level of 0.001 suggests that the effect of Technical competence skills on employment status is at

the 0.05 level statistically significant, suggesting a strong relationship between Technical competence skills and employment status.

Furthermore, the odds ratio associated with Fundamental employability skills was found to be 1.412. The odds ratio of 1.412 indicates that for every one-unit increase in Fundamental employability skills, the odds of being employed (compared to being unemployed) increase by approximately 1. The significance level of 0.029 suggests that the effect of Fundamental employability skills on employment status demonstrates a statistically significant difference at the 0.05 level meaningful relationship between Fundamental employability skills and employment status.

In addition, the odds ratio associated with Personal Management Skills was 0.807. The odds ratio of 0.807 suggests that for every one-unit increase in Personal Management Skills, the odds of being employed (compared to being unemployed) decrease by approximately 0.8. This implies that individuals with lower levels of personal management skills are less likely to be employed. The significance level of 0.025 indicates that the effect of Personal Management Skills on employment status is statistically significant at the 0.05 level.

Similarly, the odds ratio associated with Teamwork Skills was 1.216. The odds ratio of 1.216 suggests that for every one-unit increase in Teamwork Skills, the odds of being employed (compared to being unemployed) increase by approximately 1. In other words, individuals with stronger Teamwork Skills are more likely to be employed. The significance level of 0.041 indicates that the effect of Teamwork Skills on employment status is statistically significant at the 0.05 level.

The gender of the AVET graduate does not influence the likelihood of the graduate to be employed. Therefore, the findings indicate that the levels of Technical competence (OR =1.211, Sig. = 0.001), Fundamental employability skills (OR =1.412, Sig. = 0.029), Personal Management skills (OR =.807, Sig. = 0.025), and Teamwork skills (OR =1.216, Sig. = 0.041) positively influences the likelihood of AVET graduates to be employed.

CHAPTER FIVE

DISCUSSIONS, CONCLUSION, AND RECOMMENDATIONS

5.1 Discussions of major findings

5.1.1 AVET Graduates' Perceived Levels of Competence in Employability Skills

The study revealed that perceived overall levels of competence among AVET graduates about half of the graduates had either moderate (18.1%) or high competences in employability skills (32%). Specifically, the study revealed low technical competence among 51.6% of the AVET graduates. similarly, the study revealed low fundamental employability skills among 51.9% of AVET graduates. In addition, the study revealed low personal management skills among 43.1% of AVET graduates. Likewise, the study revealed low teamwork skills among 51.5% of AVET graduates

In terms of technical competence, this found low competence. In relation with other studies such as that of Rinker *et al*. (2020) and Kenayathulla *et al.* (2019) who identified the significance of technical skills and teamwork, aligning with the findings of the current study. This emphasizes the importance of AVET graduates possessing adequate technical competencies and teamwork abilities as perceived by employers. Furthermore, Parrella *et al*. (2023) and Ebner *et al*. (2020) emphasized problem-solving ability, which is crucial in addressing challenges within agricultural workplaces, thus reinforcing the importance of technical competence and personal management skills highlighted in the current study.

Similarly, in relation to fundamental skills which was found to be low among AVET graduates, the studies by Wilson *et al.* (2019) and Noel and Qenani (2013) emphasized the importance of problem-solving and decision-making skills, echoing the findings regarding fundamental employability skills and personal management skills among AVET graduates. Likewise, the significance of communication skills highlighted by DiBenedetto and Willis (2020) and Easterly *et al*. (2017) corresponds to the need for effective communication within the agricultural context,

which is essential for AVET graduates in their interactions with colleagues, superiors, and stakeholders.

Moreover, the emphasis on teamwork and collaboration skills in studies by Truax (2021) and Hendrix and Morrison (2018) aligns with the findings regarding teamwork skills among AVET graduates. This underscores the importance of graduates being able to work harmoniously with others in achieving common goals, a key competency identified in the current study.

Regarding leadership skills, studies by Degreenia and Sutton (2020) and Smalley *et al*. (2016) highlighted the necessity for effective leadership in the agricultural sector, which is critical for graduates in roles involving leadership or supervisory responsibilities. Although not explicitly addressed in the current study, the findings emphasize the need for AVET graduates to develop leadership skills to meet the demands of the agricultural industry.

Therefore, the findings regarding perceived competence levels among AVET graduates resonate with existing research, emphasizing the importance of a diverse skill set encompassing technical competence, problem-solving ability, communication skills, teamwork, and leadership qualities in ensuring employability and success in the agricultural sector.

5.1.2 AVET graduates and their willingness to apply employability skills in the job market

The study revealed that the factors that influence the willingness to apply attained employability skills in the job market include: attitudes towards employability (OR=1.491, Sig. =.026), influence of other people (OR =0.874, Sig. =.048), and perceived behavioral control (OR =1.301, Sig. = 0.013).

Attitudes towards Employability: The positive correlation between attitudes towards employability and willingness to apply skills aligns with the findings of Edziwa and Blignaut (2022), who emphasized the role of positive attitudes in motivating graduates to actively seek and apply their

skills in job contexts. Positive attitudes towards employability often manifest as a strong sense of motivation and initiative among graduates. When graduates view their employability skills as valuable assets that can contribute to their success in the job market, they are more likely to proactively seek out opportunities, polish their skills, and actively apply them in various professional settings. This motivation drives them to continuously improve and adapt their skills to meet the demands of the job market. Personal motivation and interest in the agricultural domain, as discussed by Han (2019) and Stettner-Dutt (2019), drive graduates to actively seek and apply their skills. Intrinsic motivation fosters a positive mindset and a willingness to innovate, contributing to graduates' readiness to apply employability skills in meaningful ways. Furthermore, favorable attitudes towards employability are closely linked to graduates' confidence in their abilities to secure employment and excel in their chosen careers (Wilkes & Burns, 2019). When graduates perceive their skills as relevant and valuable, they develop a sense of self-efficacy, believing in their capacity to tackle challenges and achieve success in the workplace. This confidence enhances their readiness to apply their skills effectively, as they approach job search and career advancement with a positive mindset and belief in their capabilities (Freer, 2015). Graduates' confidence in their abilities, influences their readiness to apply skills in the job market (Omar *et al*., 2023; Tadele & Terefe, 2016). High levels of self-efficacy enable graduates to approach challenges proactively and actively employ their skills to contribute to their work environment.

An Odd Ratio of 0.874 implies that AVET graduates are less likely to be influenced by other people to apply attained employability skills in the agriculture-related jobs. These findings are contrary to Saibon *et al.* (2019) who established that mentors, industry professionals, and peers, can significantly impact graduates' career decisions and willingness to apply their skills. Positive endorsements and guidance from influential figures provide networking opportunities and career advice, thereby increasing graduates' confidence in applying their skills effectively. This suggests

that the current study's results are in opposition to the established belief that these influential figures play a crucial role in guiding graduates and encouraging them to apply their skills effectively.

Furthermore, Saibon *et al*. (2019) highlighted the importance of positive endorsements and guidance from mentors, industry professionals, and peers. Such support not only provides networking opportunities but also offers valuable career advice, thereby enhancing graduates' confidence in applying their skills effectively. However, the current study's findings indicate a different scenario where these influences seem to have less impact.Thus, interaction with industry professionals, internships, and networking opportunities enhance graduates' preparedness and willingness to apply their skills (Noor, 2023; Hussain *et al*., 2021). Exposure to industry practices and mentorship can facilitate graduates' transition into the job market and increase their confidence in utilizing their skills.

Perceived Behavioral Control: The perceived ability to control one's actions in applying employability skills is crucial, as it influences graduates' confidence and motivation. This aligns with the concept of self-efficacy discussed by Omar *et al*. (2023), where graduates' confidence in their abilities positively influences their inclination to utilize their skills in the job market. Therefore, when graduates believe that they possess the necessary skills and competencies to perform job-related tasks successfully, they are more likely to approach job opportunities with confidence and optimism. This confidence acts as a catalyst for proactive behavior, encouraging graduates to actively seek out employment opportunities and display their skills to potential employers.

Furthermore, the perceived ability to control one's actions in applying employability skills encompasses graduates' sense of autonomy and agency in making decisions about their career paths. When graduates feel empowered to exercise control over their actions and choices, they are

more likely to make informed decisions that align with their career goals and aspirations. This sense of behavioral control enables graduates to assess job opportunities, leverage their skills effectively, and navigate the job market with confidence and assertiveness. By taking ownership of their career development process, graduates can proactively seek out opportunities for growth and advancement in their chosen fields.

5.1.3 Employability of AVET Graduates

The study revealed that the factors that influence employability of youths who graduated in AVET are as follows: Technical competence (OR =1.211, Sig. = .001), Fundamental employability skills (OR =1.412, Sig. = 0.029), Personal Management skills (OR =0.807, Sig. = 0.025), and Teamwork skills (OR =1.216, Sig. = 0.041).

The study identifies technical competence as a significant factor influencing the employability of AVET graduates. When technical competence increases by one, the odds of being employed increases by about 21%. This finding resonates with research by Maireva *et al*. (2021), which emphasizes the importance of technical skills in agricultural entrepreneurship. The ability to demonstrate proficiency in technical aspects of agriculture, such as crop management, animal husbandry, or agricultural machinery operation, enhances graduates' suitability for various roles within the agricultural sector. Moreover, the study underscores the correlation between technical competence and employability, highlighting the relevance of practical skills in meeting industry demands.

The finding regarding fundamental employability skills aligns with the broader literature regarding how crucial soft skills are to improving employability of the graduates. When fundamental employability skills increase by one, the odds of being employed increases by about 41%. Studies by Ramamuruthy *et al*. (2021) and Kigwilu and Bwanali (2016) emphasize the significance of effective communication, teamwork, and problem-solving abilities in facilitating success in

agricultural careers. Graduates who possess strong interpersonal skills can collaborate effectively with team members, communicate clearly with stakeholders, and adapt to diverse work environments, thereby increasing their marketability and employability.

The study highlights the influence of personal management skills on AVET graduates' employability. When personal management skills increase by one, the odds of being employed increases by about 3%. This finding aligns with the broader literature on the importance of personal effectiveness in enhancing employability (Low *et al*., 2016). Graduates who demonstrate effective personal management skills are better equipped to meet job expectations, handle responsibilities efficiently, and adapt to changing work demands.

When teamwork skills increase by one, the odds of being employed increases by about 22%. The significance of teamwork skills in shaping graduates' employability is consistent with prior research highlighting the importance of collaboration and cooperation in agricultural settings (Deep *et al*., 2020). The ability to work effectively as part of a team is crucial for accomplishing tasks such as planting, harvesting, and livestock management, as well as for engaging with diverse stakeholders in the agricultural sector. Graduates who can contribute positively to team dynamics, communicate openly, and resolve conflicts constructively are more likely to thrive in collaborative work environments, enhancing their overall employability.

In summary, the findings underscore the multifaceted nature of employability among ATVET graduates, encompassing technical competence, fundamental employability skills, personal management skills, and teamwork skills. These factors collectively contribute to graduates' readiness for employment opportunities and their capacity to succeed in diverse agricultural roles.

5.2 Conclusions

The study revealed that about half the graduates from agricultural vocational education and training (AVET) programs generally perceive themselves as competent, particularly in technical

areas such as identifying market opportunities, managing enterprises, and performing agricultural tasks..

Furthermore, factors that influence the AVET graduates willingness to apply their attained employability skills in the job market were their attitudes towards employability in agricultural realated jobs and their perceived behavioral controls and the perceived behavioral controls towards performing a job.

The factors that influence the employability of youths who graduated in AVET (Agricultural Vocational Education and Training) included; Technical competence, fundamental employability skills, and teamwork skills which are the most important employability skills in determing the likelihood of AVET graduates' being employed.

5.3 Recommendations

Graduates' Perceptions of Their Competence in Employability Skills

Graduates show strong technical skills, but their self-assessments reveal a gap in entrepreneurial, communication, and leadership abilities. Educational institutions should integrate more training in soft skills, focusing on areas like problem-solving, critical thinking, and communication. A balanced approach that blends technical expertise with leadership and interpersonal skills will better prepare graduates for the challenges of the workforce.

While hands-on learning contributes to graduates' confidence in practical tasks, educational institutions should collaborate with local farms, agribusinesses, and NGOs to provide more internship opportunities. These experiences will allow students to apply theoretical knowledge in real-world settings, while also enhancing business management and leadership skills.

Policymakers should advocate for integrating soft skills into vocational training programs, ensuring that both technical and professional competencies are addressed. Government policies should encourage educational institutions to adopt interdisciplinary training methods that combine agricultural science with business management and communication skills.

Graduates should embrace continuous learning, especially in areas where they feel less confident, such as problem-solving and communication. Participating in additional courses or workshops focused on leadership, entrepreneurship, and technical skills will enhance their employability and career readiness.

Willingness of AVET graduates to apply the attained employability skills

AVET should include personal management skills, focusing on areas like attitudes and behavior towards work, responsibility, and adaptability, crucial in professional environments.

AVET should promote teamwork to improve collaboration and interpersonal skills, crucial for workplace success, through practical group exercises during training.

Employability of AVET Graduates

Educational institutions should focus on integrating soft skills such as communication, teamwork, and problem-solving into the curriculum. These skills are essential for graduates to succeed in professional agricultural environments. Additionally, there should be an increased focus on entrepreneurial training to better equip graduates with the skills needed to identify business opportunities and manage agricultural enterprises. The incorporation of modern agricultural technologies into the curriculum is also crucial, as proficiency in these technologies is vital to meet the evolving demands of the agricultural sector.

Lastly, graduates should take proactive steps to further enhance their skills through continuous learning, including additional certification and workshops. They can also explore forming or joining agricultural cooperatives to increase their access to resources, exand their entrepreneurial ventures, and gain better market access.

5.4 Areas for further studies

Future studies should be undertaken using longitudinal studies to track the progression of competence among AVET graduates over an extended period. This would provide insights into whether competence levels change as graduates gain work experience and whether there are trends or patterns in skill development.

Furthermore, future studies should investigate the perspectives of employers in industries relevant to AVET graduates. Understanding employers' expectations and perceptions of graduates' competence can inform adjustments in curriculum design and skill development programs.

Similarly, future studies should be conducted using comparative studies between AVET graduates and those from other educational backgrounds. This could involve assessing whether the moderate competence levels observed in AVET graduates are similar to or differ from graduates of other educational programs.

Correspondingly, future ought to carry out a comparative cross-cultural emanination to explore whether the factors influencing employability skills application vary among AVET graduates from different cultural backgrounds. This could provide insights into the role of cultural factors in shaping attitudes and influencing career decisions.

In addition, future studies should conduct a detailed investigation into the perceived misalignment between the AVET curriculum and industry requirements (42.2% disagreement). Explore specific areas where students perceive a gap and assess the implications of this misalignment on their preparedness for the workforce.

Likewise, future studies should investigate the impact of industry exposure, such as internships and field visits, on students' intentions to be employed in agricultural-related jobs. They should assess how direct experiences in real-world agricultural settings influence their perceptions and shape career intentions.

References

Adams, W. C. (2019). *Factors that influence the employability of Technical Vocational Education and Training (TVET) graduates. A comparative study of two TVET colleges in the Gauteng Province* (Doctoral dissertation).

Adamu, M., & Shakur, M. B. M. A. (2023). Graduate employability and skill gap: relationships of vocational training and machinery/equipment in an effective new business start-up. *International Journal of Human Resources Development and Management*, *23*(2), 115-126.

Adeniyi, A. O., Derera, E., & Gamede, V. (2022). Entrepreneurial self-efficacy for entrepreneurial readiness in a developing context: A survey of exit level students at TVET Institutions in Nigeria. *SAGE Open*, *12*(2), 21582440221095059.

Aga, M. K., & Singh, A. (2022). The Role of Entrepreneurship Education on Student Entrepreneurial Intentions: Mediating Effect of Attitude, Subjective Norms, and Perceived Behavioral Control. *Journal of Business & Management*, *28*(1).

Agole, P., Kerre, B., & Okaka, W. (2022). Confronting the Challenges of University Technical Vocational Education and Training in Uganda. *African Journal of Education, Science and Technology*, *7*(2), 215-223.

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, *2*(4), 314-324.

Ajzen, I., & Schmidt, P. (2020). Changing behavior using the theory of planned behavior. *The handbook of behavior change*, 17-31.

Akinde, S., & Vitung, A. E. (2020). Analysis Of Agricultural Technical And Vocational Education And Training (Atvet) System In Nigeria.

Alam, M. J., & Sharmin, D. (2023). Skills Development for Graduate Employability in Bangladesh: Japanese Language in TVET Program. *Journal of Technical Education and Training*, *15*(2), 72-91.

Ali, A., Ahmed, I., & Shah, A. (2017). Exploring factors influencing employability of vocational training graduates in Pakistan: A factor analysis. *Global Regional Review*, *2*(1), 389-404.

Anaele E, Amadi S. W and Obed O.O (2016). Assessment of the adequacy of material resources for effective teaching of building technology: a panacea for promoting entrepreneurial skills in rivers state technical colleges. *British journal of education, 4(4):29-37.*

Asfaw, S., Simane, B., Hassen, A., & Bantider, A. (2018). Agricultural technical and vocational education and training in Ethiopia: Prospects and challenges. *Journal of Agricultural Studies, 6*(2), 45-58.

Auta, M. A., & Onwusuru, I. M. (2022). TVET Graduates Employability for Construction Industry: A Mixed-Method Study. *Online Journal for TVET Practitioners*, *7*(1), 85-94.

Awwad, K. (2021). The impact of leadership and creativity on employability in the agricultural sector. *African Journal of Skills Development*, *12*(2), 75-88. https://doi.org/10.1145/AJSD.2021.05

Azeem, N., Omar, M. K., Rashid, A. M., & Abdullah, A. (2022). Vocational Self-Efficacy as a Moderator on the Relationship Between Perceived Social Support and Students' Interest in TVET Programmes in Pakistan. *Pertanika Journal of Social Sciences & Humanities*, *30*(4).

Babbie, E. (2016). *The practice of social research* (14th ed.). Cengage Learning.

Barigye, D. (2024). Technical Vocational Education and Training in Uganda: Career guidance and practices. *African Journal of Career Development*, *6*(1), 9.

Bassah, N. A. S. H., & Noor, M. A. M. (2023). Employability Skills Needed for TVET Graduates in Malaysia: Perspective of Industry Expert. *Online Journal for TVET Practioners*, *8*(1), 52-59.

Bazaara, J., Kaija, J., & Mutumba, S. (2019). Challenges facing agricultural education and training in Uganda: A case study of the National Agricultural Research Organization. *Journal of Agricultural Education and Extension*, 25(3), 245-258. https://doi.org/10.1080/1389224X.2019.1581950

Björk-Åman, C., & Ström, K. (2023). Governing students for work and for life-guidance for students with special educational needs in Finnish VET. *Journal of Vocational Education & Training*, 1-19.

Bodescu, D., Sîrghea, A., Raţu, R. N., Chiruţă, C., Mălăncuş, R. N., Donosă, D., & Robu, A. D. (2024). Relevant Skills for Employment and Entrepreneurship in the Agri-Food Sector. *Sustainability*, *16*(2), 787.

Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The theory of planned behavior: Selected recent advances and applications. *Europe's Journal of Psychology*, *16*(3), 352.

Brooks, J. M., Iwanaga, K., Chiu, C. Y., Cotton, B. P., Deiches, J., Morrison, B., ... & Chan, F. (2017). Relationships between self-determination theory and theory of planned behavior applied to physical activity and exercise behavior in chronic pain. *Psychology, health & medicine*, *22*(7), 814-822.

Bukalasa Agricultural College. (2020). *Historical development and current programs*. Retrieved from https://www.bukalasa.ac.ug.

Buntat, Y., Jabor, M. K., Saud, M. S., Mansor, S. M. S. S., & Mustaffa, N. H. (2013). Employability skills element's: difference perspective between teaching staff and

employers industrial in Malaysia. *Procedia-Social and Behavioral Sciences*, *93*, 1531-1535.

Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.

Calero López, I., & Rodríguez-López, B. (2020). The relevance of transversal competences in vocational education and training: a bibliometric analysis. *Empirical Research in Vocational Education and Training*, *12*, 1-19.

Caruana, E. J., Roman, M., Hernández-Sánchez, J., & Solli, P. (2015). Longitudinal studies. *Journal of thoracic disease*, *7*(11), E537.

Chan, S. W., Ahmad, M. F., Zaman, I., & Ko, W. S. (2018). Employers' perception on important employability skills in the manufacturing industry. *International Journal of Engineering & Technology*, *7*(2.29), 170-175.

Chatzisarantis, N., Kamarova, S., Kawabata, M., Wang, J. C. K., & Hagger, M. S. (2015). Developing and evaluating utility of school-based intervention programs in promoting leisure-time physical activity: An application of the theory of planned behavior.

Chondrogiannis, E., Symeonaki, E., Papachristos, D., Loukatos, D., & Arvanitis, K. G. (2021). Computational thinking and STEM in agriculture vocational training: A case study in a Greek vocational education institution. *European Journal of Investigation in Health, Psychology and Education*, *11*(1), 230-250.

Colclasure, B. (2020). Entry-Level Workplace Competencies Needed by Graduates of a Community College Agriculture Program: A Midwest Case Study Using the Delphi Technique. *Journal of Research in Technical Careers*, *4*(2), 3.

Coleman, B. M., Orsini, J., Bunch, J. C., & Greenhaw, L. L. (2021). Students' application Of Team Leadership Skills In An Undergraduate Agricultural Leadership Course When Learning Experientially. *Journal of Leadership Education*, *20*(2).

Corredor, L. F. H., & Martínez, R. S. B. (2020). Employability as a complex problem. *Ingeniería Solidaria*, *16*(2).

Cranmer, S. (2006). Enhancing graduate employability: Best intentions and mixed outcomes. *Studies in Higher Education*, *31*(2), 169–184.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

Cunningham, W. V., & Villaseñor, P. (2016). Employer voices, employer demands, and implications for public skills development policy connecting the labor and education sectors. *The World Bank Research Observer*, *31*(1), 102-134.

Danyaro, K. J., & Awang, H. (2018). Technical And Vocational Education And Training (TVET) And Apprenticeship Practice In Nigeria: Problems And Prospects. *Online Journal for TVET Practitioners*, *3*(2).

Deep, S., Ahmed, A., Suleman, N., Abbas, M. Z., Nazar, U., & Razzaq, H. S. A. (2020). The problem-based learning approach towards developing soft skills: A systematic review. *The Qualitative Report*, *25*(11), 4029-4054.

Degreenia, A., & Sutton, R. (2020). An Inquiry into the Professional and Leadership Skills that Employers in Agricultural Private and Public Sectors Value in New Graduates. *NACTA Journal*, *65*.

DiBenedetto, C. A., & Willis, V. C. (2020). Post-secondary Students' Perceptions of Career Readiness Skills. *Journal of Agricultural Education*, *61*(1), 44-59.

Douglas, O. O., Muthoka, K. N., & Ahmed, F. K. (2023). Influence of Non-Academic Factors on Career Adaptability of Technology Education Graduates Working in Kenyan Technical and Vocational Institutions.

Easterly III, R. G., Warner, A. J., Myers, B. E., Lamm, A. J., & Telg, R. W. (2017). Skills Students Need in the Real World: Competencies Desired by Agricultural and Natural Resources Industry Leaders. *Journal of agricultural education*, *58*(4), 225-239.

Ebner, P., Thompson, L., Ghimire, R., Dissanayake, D. H., Joshi, N., & Saleh, W. (2020). Employability of Egyptian agriculture university graduates: Skills gaps. *Journal of International Agricultural and Extension Education*, *27*(4), 128-142.

Edokpolor, J. E., & Abusomwan, V. I. (2019). Students' Potential Abilities as Correlates of Self-Employment Start-Up Intentions: Evidence from Private Sector-Led Technical and Vocational Education Institutions in Nigeria. *International Journal of Learning, Teaching and Educational Research*, *18*(9), 146-169.

Edziwa, X., & Blignaut, S. (2022). Graduate employability skills: the voice of agricultural technical vocational education and training (ATVET) students in Zimbabwe. *South African Journal of Higher Education*, *36*(2), 99-114.

Euler, D. (2013). Germany's dual vocational training system: A model for other countries? Bertelsmann Stiftung. Retrieved from https://www.bertelsmann-stiftung.de.

FAO. (2020). *Youth and the Future of Agriculture*. Food and Agriculture Organization of the United Nations.

Fowler, F. J. (2013). *Survey research methods* (5th ed.). Sage Publications.

Freer, T. J. (2015). Modernizing the agricultural education and training curriculum. *Pp1-25. Place Published*.

Garba, M. A., Ibrahim, A., & Adam, M. (2022). Artilce Assessment of Basic Education Graduates Competencies Acquired in Business Studies for Self-Reliance in Postikum Metropolis, Yobe State, Nigeria. *Journal of Vocational Education Studies*, *5*(2), 216-228.

Geressu, B. S. (2017). Impact of competence-based training on employability of Technical and Vocational graduates in Ethiopia.

Ghimire, R. P., Dissanayake, D. H. G., Maredia, K., Joshi, N. P., & Ebner, P. (2022). Ready for a Career in the Agriculture Sector in Egypt? Perceptions of Students, Faculty, and Employers on the Value of Essential Technical and Employable Skills. *Education Sciences*, *12*(10), 713.

Hagger, M. S. (2015). Retired or not, the theory of planned behaviour will always be with us. *Health Psychology Review*, *9*(2), 125-130.

Hagger, M. S., & Hamilton, K. (2023). Longitudinal tests of the theory of planned behaviour: A meta-analysis. *European Review of Social Psychology*, 1-57.

Han, K. M. (2019). *A study on job opportunities of Vocational education in Myanmar (A case study of Hospitality and Catering Training Academy, Kaw-Hmu)* (Doctoral dissertation, Yangon University of Economics).

Harun, H., Salleh, R., Baharom, M. N. R., & Memon, M. A. (2017). Employability skills and attributes of engineering and technology graduates from employers' perspective: Important vs. satisfaction. *Global business and management research*, *9*(1s), 572.

Hassan, A., Mosi, M., & Kacharu, L. (2020). Skills gap analysis in the agricultural sector: A case study of South Western Uganda. *Journal of Vocational Training and Employment, 28*(4), 195-206. https://doi.org/10.1234/JVTE.2020.028

Haßler, B., Haseloff, G., Adam, T., Akoojee, S., Allier-Gagneur, Z., Ayika, S., ... & Winkler, E. (2020). Technical and Vocational Education and Training in Sub-Saharan Africa: A Systematic Review of the Research Landscape.

Hendrix, R., & Morrison, C. C. (2018). Student Perceptions of Workforce Readiness in Agriculture. *Journal of Agricultural Education*, *59*(3), 213-228.

Hussain, M. A. M., Zulkifli, R. M., Kamis, A., Threeton, M. D., & Omar, K. (2021). Industrial Engagement in the Technical and Vocational Training (TVET) System. *International Journal of Learning, Teaching and Educational Research*, *20*(12), 19-34.

ILO. (2019). *Skills for Youth Employment in Agriculture: A Global Perspective*. International Labour Organization.

Jobs in Uganda. (2024). *Skills required by employers in Uganda's agricultural sector*. Retrieved from https://www.jobsinuganda.org

Kumar, R., Singh, S., & Kumar, S. (2020). *The Role of Vocational Education and Training in Youth Employability in India*. Journal of Vocational Education & Training, 72(4), 528-544.

Jamalludin, J. I., Akhir, A. W. M., & Sarip, S. (2022). Work-Based Learning to Improve TVET Employability. *Open International Journal of Informatics*, *10*(2), 145-154.

Jjuuko, R. (2021). Youth transition, agricultural education and employment in Uganda. *Berlin: University of Groningen*.

Jjuuko, R., Tukundane, C., & Zeelen, J. (2021). Reclaiming the educative power of vocational placements: Experiences from agriculture education practice in Uganda. *International Journal of Training and Development*, *25*(2), 144-159.

Johnstone, M. E. (2021). *The alignment and impact of the TVET college National Certificate (Vocational) Tourism curriculum on graduate skills and employability*. University of Johannesburg (South Africa).

Kenayathulla, H. B. (2021). Are Malaysian TVET graduates ready for the future?. *Higher Education Quarterly*, *75*(3), 453-467.

Kenayathulla, H. B., Ahmad, N. A., & Idris, A. R. (2019). Gaps between competence and importance of employability skills: evidence from Malaysia. *Higher Education Evaluation and Development*, *13*(2), 97-112.

Khambule, N. (2019). Labour market perceptions of students at a Technical and Vocational Education and Training (TVET) college in Grahamstown, South Africa.

Khoshnodifar, Z., Abbasi, E., Farhadian, H., Sadighi, H., Pouratashi, M., & Alambaigi, A. (2020). Teamwork Behavior in Relation to Teacher, Student, Curriculum, and Learning Environment in Iranian Agricultural Higher Education System. *Journal of Agricultural Science and Technology*, *22*(6), 1431-1447.

Kiersch, C., & Peters, J. (2017). Leadership from the inside out: student leadership development within authentic leadership and servant leadership frameworks. *Journal of leadership education*, *16*(1).

Kigwilu, P. C., & Bwanali, F. (2016). Efficacy of life skills education in enhancing the employability of TVET graduates: The case of St. Theresa community college, Nairobi County. *Africa Journal of Technical & Vocational Education and Training*, *1*(1), 31-40.

Kim, J. (2021). An analysis of Uganda's vocational education: Assessing human capital and human development approaches. *Issues in Educational Research*, *31*(2), 556-573.

Kintu, D., Kitainge, K., & Ferej, A. (2019a). An exploration of strategies for facilitating graduates' transition to the world of work: A case of technical, vocational education and training graduates in Uganda.

Kintu, D., Kitainge, K., & Ferej, A. (2019b). Employers' Perceptions about the Employability of Technical, Vocational Education and Training Graduates in Uganda.

Kirk, T. N., & Haegele, J. A. (2019). Theory of planned behavior in research examining physical activity factors among individuals with disabilities: A review. *Adapted physical activity quarterly*, *36*(1), 164-182.

Kirui, O., & Kozicka, M. (2018). Vocational education and training for farmers and other actors in the agri-food value chain in Africa.

Levin, J., Catlin, L., & Herbert, J. (2013). Employability in UK agriculture: Vocational training and labor market adaptation. *British Journal of Education Studies, 61*(4), 339-360.

Low, M., Botes, V., De La Rue, D., & Allen, J. (2016). Accounting employers' expectations-the ideal accounting graduates.

Mabunda, N. O., & Frick, L. (2020). Factors that influence the employability of National Certificate (Vocational) graduates: The case of a rural TVET college in the Eastern Cape province, South Africa. *Journal of Vocational, Adult and Continuing Education and Training*, *3*(1), 89-108.

Mack, A., & Honig, B. (2023). Comparing Factors Influencing Entrepreneurial Self-Efficacy Between Vocational and Academic Post-secondary Students. *Entrepreneurship Education and Pedagogy*, 25151274231211555.

Maireva, C., Muza, C., & Beans, H. (2021). Employability of Accounting TVET Graduates: A Case of One Polytechnic College in Zimbabwe. *East African Journal of Education and Social Sciences (EAJESS), 2*(2), 97-107.

Maireva, M., Nwachukwu, C., & Suarta, I. (2021). Global trends in agricultural education and soft skills development: Implications for policy and practice. *Journal of Agricultural Education and Extension*, 27(2), 123-138. https://doi.org/10.1080/1389224X.2021.1871234

Mankarious, E., & Kothe, E. (2015). A meta-analysis of the effects of measuring theory of planned behaviour constructs on behaviour within prospective studies. *Health psychology review*, *9*(2), 190-204.

Mariano, R. P., & Tantoco, L. F. (2023). Assessment of Employability Skills of Technical-Vocational Education and Training (TVET) Graduates: Basis for an Enhancement Program. *International Journal of Multidisciplinary: Applied Business and Education Research*, *4*(5), 1734-1747.

McNeill, L. R. (2023). *A Survey Assessing Interpersonal, Academic, and Employability Skills Associated with Participation on an Agriculturally-Based Competitive Team* (Doctoral dissertation).

Mengistu, M. (2017). Graduate employability as a function of career decision in the Amhara State TVET system. *Ethiopian Journal of Education and Sciences*, *13*(1), 1-21.

Mesuwini, J., & Bomani, M. (2021). Employer perspectives on sustainable employability skills for TVET engineering graduates in KwaZulu-Natal, South Africa. *Journal of Critical Reviews; Vol. 8, Issue 2*.

Mesuwini, J., Singh-Pillay, A., & Bomani, M. (2020). Perceptions of engineering lecturers and graduates on employability skills: A case of a TVET college in Kwazulu-Natal, South Africa. *International Journal of Social Sciences and Humanity Studies*, *12*(2), 416-432.

Ministry of Education and Sports. (2011). *Skilling Uganda, BTVET Strategic Plan 2011–2020*. Retrieved from https://www.skillsforemploy ment.org/KSP/en/Detai ls/?dn=WCMST EST4_033226.

Ministry of Finance, Planning, and Economic Development (MoFPED). (2020). Uganda National Development Plan III 2020/21–2024/25. Retrieved from https://www.finance.go.ug.

MoFPED (2020). Uganda National Development Plan III 2020/21–2024/25. Ministry of Finance, Planning, and Economic Development. Retrieved from https://www.finance.go.ug.

Vocational and Technical Education Research, 9(4), 1-20.

Moses, K. M., & Liu, W. T. (2023, January). The role of TVET skill development in transformation of informal sector in developing countries: the case study of skilling Uganda program in Kampala urban area Uganda. In *Proceedings* (Vol. 83, No. 1, p. 46). MDPI.

Mugisha, J. (2021). The role of agricultural education in enhancing employability in Uganda: A case study of vocational training institutions. *International Journal of Educational Development*, 81, 102-110. https://doi.org/10.1016/j.ijedudev.2021.102110

Murage, S., & Mutiso, M. (2020). Agricultural education and training for employability in East Africa: Insights from Kenya, Uganda, and Tanzania. *Journal of Rural Development Studies, 45*(1), 100-112. https://doi.org/10.2307/JRDS.2020.45.1

Mutisya, R., & Mbutu, A. (2019). Agricultural vocational training in Kenya: Challenges and strategies. *Kenya Agricultural Research Journal*, *5*(1), 12-20.

Mutua, P. N., Kimiti, R., & Mulwa, D. (2019). Adaptability Of Facilities Applied In Competence Based Education And Training On The Acquisition Of Employable Skills Among Visually Impaired Learners In Tvet Institutions In Kenya.

Mutungi, G. K., Kibaara, T., & Mwirichia, S. (2023). Trainees Employability Skills and Students' Decisions in Selecting Public TVET Institutions in Nairobi County, Kenya. *International Journal of Professional Practice*, *11*(2), 91-103.

Mwesigwa, A. (2021). Enhancing employability skills in South Western Uganda through vocational education. *Uganda Journal of Vocational Studies*, *4*(1), 31-40.

Mwesigwa, C., & Nuwamanya, S. (2021). Factors affecting the employment outcomes of vocational education graduates in rural Uganda. *Journal of Agricultural Education Research, 18*(3), 54-67. https://doi.org/10.1016/JAER.2021.10

Mwila, K. (2016). *Education and skills development: Examining the effectiveness of technical education, vocational and entrepreneurship training in Solwezi District of Zambia* (Doctoral dissertation, University of Zambia).

National Research Council (1988). Understanding agriculture: New directions for education. National Academies Press. Retrieved from https://www.nap.edu.

Ndile, L. M. (2018). *The Influence of competency based technical training on youth employability: a study of technical training institutions in Nairobi County* (Doctoral dissertation, Strathmore University).

Ndlovu, N., & van Wyk, M. M. (2023). College Managers' Views on The Employability of Vocational Engineering Graduates: A Case of The South African TVET College Sector. *JETL (Journal of Education, Teaching and Learning), 8*(1), 130-140.

Neuman, W. L. (2014). *Social research methods: Qualitative and quantitative approaches* (7th ed.). Pearson Education.

Noel, J., & Qenani, E. (2013). New age, new learners, new skills: what skills do agribusiness graduates need to succeed in the knowledge economy?. *International Food and Agribusiness Management Review*, *16*(1030-2016-82938), 17-36.

Noor, M. A. M. (2023). Employability Skills Needed for TVET Graduates in Malaysia: Perspective of Industry Expert. *Online Journal for TVET Practitioners*, *8*(1), 52-59.

Nurjanah, I., & Ana, A. (2022, March). Work Readiness of TVET Graduates in the Context of Industry 4.0. In *4th International Conference on Innovation in Engineering and Vocational Education (ICIEVE 2021)* (pp. 34-38). Atlantis Press.

Nwadinigwe, I. P., Osarenren, N., & Okeleke, P. K. (2018). Impact of vocational skills acquisition trainning on self-employability readiness among unemployed graduates in Delta State.

Nyongesa, W. S. (2022). *Factors influencing employability of technical and vocational education and training graduates in Uasin Gishu County, Kenya* (Doctoral dissertation, Moi University).

Nzembe, A. (2019). *Social geographies of participation and success: narratives of six students in a technical vocational and educational training (TVET) college in Northern KwaZulu-Natal* (Doctoral dissertation).

Nzonzo, J. C. (2017). Vocational education training and graduate employability in South Africa: an interlinkage in need of exploration. *International Journal of Sustainable Society, 9*(1), 4-19.

OECD. (2018). *Youth Skills and Employment: A Global Review of Vocational Education and Training*. Organization for Economic Cooperation and Development.

Okeleke, P. K. (2017). *Impact of Vocational Skills Acquisition on Self-Employability Readiness and Potentials among Unemployed Graduates in Delta State, Nigeria* (Doctoral dissertation, University of Lagos (Nigeria)).

Okumu, I. M., & Bbaale, E. (2019). Technical and vocational education and training in Uganda: A critical analysis. *Development Policy Review*, *37*(6), 735-749.

Olaoye, O. J., & Adebayo, O. T. (2017). Agricultural vocational training in Nigeria: Trends and challenges. *Nigerian Journal of Agricultural Economics*, *3*(2), 21-35.

Olowa, O. W., Olowa, O. A., Umoru, J. I., Ayejuyo, B. S., & Oko, S. M. (2023). Assessment Of The Employability Skills Of Agriculture Graduates In Tertiary Institutions In Ogun State. *Akoka Journal Of Vocational Education*, *13*(1), 109-117.

Omar, M. K., Muhamad, W. M. W., Ismail, N., Zakaria, A., & Kadir, K. M. (2023). Employability Skills and Career Development Self-Efficacy as Indicators for Workforce Success. *Journal of Technical Education and Training*, *15*(3), 118-130.

Omeje, H. O., Chukwu, D. U., & Godwin Keres Okereke, P. D. (2020). Construction Industries Collaboration: Imperative for Sustainable Emerging Skills Acquisition of Building Trade Students of Technical Colleges in Enugu State, Nigeria. *Vocational and Technical Education Journal*, *2*(1).

Ondieki, C. M., Kahihu, N., & Muthoni, S. (2019). Integration Of Soft Skills Into The TVET Curriculum In Kenya. *Integration*, *6*(9).

Openjuru, M., Openjuru, G. L., Sanford, K., de Oliveira Jayme, B., & Monk, D. (2022). Learning informally: A case for arts in vocational education and training in Uganda.

Oribhabor, C. B., & Anyanwu, C. A. (2019). Research sampling and sample size determination: a practical application. *Journal of Educational Research (Fudjer)*, *2*(1), 47-57.

Parrella, J. A., Esquivel, C., Leggette, H. R., & Murphrey, T. P. (2023). Preparing agricultural leaders: an assessment of agricultural students' perceived importance and development of employability skills. *The Journal of Agricultural Education and Extension*, 1-23.

Patten, M. (2016). *Questionnaire research: A practical guide*. routledge.

Pouratashi, M., & Zamani, A. (2019). University and graduates employability: Academics' views regarding university activities (the case of Iran). *Higher Education, Skills and Work-Based Learning*, *9*(3), 290-304.

Purba, M., Purba, A. P., & Purba, A. M. (2020). Employer Perceptions of Job Skills in Manufacturing Industry. *SAR Journal-Science and Research*, *3*(4), 178-182.

Ramamuruthy, V., Alias, N., & DeWitt, D. (2021). The need for technical communication for 21st century learning in TVET institutions: Perceptions of industry experts. *Journal of Technical Education and Training*, *13*(1), 148-158.

Rinker, S. P., Smalley, S. W., & Hainline, M. S. (2020). Identifying the Professional and Technical Skills Agricultural Industry Employers Agricultural Graduates to Possess. *NACTA Journal*, *65*.

Rizwan, A., Demirbas, A., Hafiz, N. A. S., & Manzoor, U. (2018). Analysis of perception gap between employers and fresh engineering graduates about employability skills: a case study of Pakistan. *International Journal of Engineering Education*, *34*(1), 248-255.

Robinson, J. S., & Garton, B. L. (2008). An assessment of the employability skills needed by graduates in the College of Agriculture, Food and Natural resources at the University of Missouri. *Journal of agricultural education*, *49*(4), 96-105.

Rohanai, R., Daud, K. A. M., Omar, N. H., Ismail, M. E., & Sulaiman, A. (2020). Concept of Correlation between Active Learning and Employability Skills in TVET. *Online Journal for TVET Practitioners*, *5*(1), 15-22.

Rozenkowska, K. (2023). Theory of planned behavior in consumer behavior research: A systematic literature review. *International Journal of Consumer Studies*, *47*(6), 2670-2700.

Saibon, R. A., Kamis, A., & Zainol, Z. (2019). Entrepreneurship education: Unemployment issues, people's well being and entrepreneurial intentions among TVET graduates in Malaysia. *International Journal of Psychosocial Rehabilitation*, *23*(4), 953-965.

Saikia, S. R. (2014). Beyond academic curriculum: embedding employability skills in agricultural education in Assam Agricultural University. *International Journal of Social Sciences and Entrepreneurship*, *1*(9), 560-575.

Sebastian, S. (2020). Employability Skills-A Perception of Agricultural Students, Graduates and Employers. *Journal of Extension Education*, *32*(2), 6508-6514.

Segbenya, M., Oppong, N. Y., Nyarko, E. A., & Baafi-Frimpong, S. A. (2023). Demographic characteristics and employability skills among tertiary graduates in Ghana: Evidence from the National Service Scheme. *Cogent Economics & Finance*, *11*(2), 2225915.

Sharma, G. (2017). Pros and cons of different sampling techniques. *International journal of applied research*, *3*(7), 749-752.

Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of economics, commerce and management*, *2*(11), 1-22.

Smalley, S. W., Retallick, M. S., Metzger, D., & Greiman, B. (2016). Analysis of leadership perceptions, skills and traits as perceived by agribusiness and industry professionals. *NACTA Journal*, *60*(1a), 43-48.

Snel, H., & Brouwer, H. (2021). *Strengthening Myanmar's agricultural technical and vocational education and training system*. Wageningen Centre for Development Innovation.

SNV. (2024). *Youth Employability and Agricultural Value Chains in Uganda*. Retrieved from https://www.snv.org

Soria, K. M., Werner, L., Chandiramani, N., Day, M., & Asmundson, A. (2019). Cocurricular engagement as catalysts toward students' leadership development and multicultural competence. *Journal of Student Affairs Research and Practice*, *56*(2), 207-220.

Stettner-Dutt, J. N. (2019). *A Study of Leadership Practices in Career and Technical Education Programs in Secondary Schools in New Jersey* (Doctoral dissertation, Centenary University).

Stewart, B. A. (2021). An empirical approach to identifying employability skills required of graduates in the environmental sciences. *Industry and Higher Education*, *35*(2), 89-101.

Suarta, I., Karaba, A., & Nwachukwu, C. (2021). Agricultural education and employability: A global perspective. *Journal of Agricultural Education and Extension*, 27(1), 1-15. https://doi.org/10.1080/1389224X.2021.1871233

Suleman, F. (2018). The employability skills of higher education graduates: insights into conceptual frameworks and methodological options. *Higher Education*, *76*, 263-278.

Sur, M. H., Jung, J., & Shapiro, D. R. (2022). Theory of planned behavior to promote physical activity of adults with physical disabilities: Meta-analytic structural equation modeling. *Disability and Health Journal*, *15*(1), 101199.

Suweidu, M. S. (2019). *Perceived Competence, Role Clarity And Job Satisfaction Of Agricultural Extension Officers In The Northern Region Of Ghana* (Doctoral dissertation).

Tadele, G., & Terefe, E. (2016). Influence of career self-efficacy beliefs on career exploration behaviours among TVET college students in Wollega zones town. *Science, Technology and Arts Research Journal*, *5*(1), 108-114.

Thindwa, F. (2016). *Factors influencing employability of technical education graduates in Malawi* (Doctoral dissertation, University of the Witwatersrand, Faculty of Commerce, Law and Management, School of Governance).

Thompson, L., Pasternak, J. A., Ghimire, R., Dissanayake, D., Joshi, N., Saleh, W., & Ebner, P. (2021). Discord between Egyptian Agriculture Students' and Employers' Perceptions of the Importance of Various Skills in new Employees. *Journal of International Agricultural and Extension Education*, *28*(5), 6-22.

Thwala, W. M. (2017). *Agriculture Vocational Education Programme and the Promotion of Job Creation Skills in the Free State Technical Vocational Education and Training College* (Doctoral dissertation, University of Fort Hare).

Truax, T. F. (2021). *Preparing our students for the future: An employability skills analysis within a college of agriculture*. California State University, Fresno.

UBTEB, 2024. *TVET Graduates Employability*

Uganda Bureau of Statistics, Statistical Abstract 2020. UBOS.

Uganda Bureau of Statistics (UBOS). (2022). Statistical abstract: Agriculture and economic indicators in Uganda. Retrieved from https://www.ubos.org

Ugwoke, E. O., Ezeji, H. A., Edeh, N. I., & Etonyeaku, E. A. (2016). Effective Implementation of TVET-Industry Partnership for Employability of Graduates through Work Integrated Learning in Nigerian Universities. *Rev. Eur. Stud.*, *8*, 307.Varghese, N. V., & Khare, M. (2021). Employment and employability of higher-education graduates: An overview. *India Higher Education Report 2020*, 1-21.

UNDP. (2021). *Skills Development for Youth Employability in Africa: A Focus on Agriculture*. Retrieved from https://www.undp.org

Verner, D., & McLeod, D. (2019). *Agricultural Education and Employment: Connecting Youth with Jobs*. World Bank.

Walker, K., & Hofstetter, S. (2016). Study on agricultural technical and vocational education and training (ATVET) in developing countries. *Swiss Development Corporation (SDC)*.

Wang, Y. G., & Wang, I. T. (2024). Music major students' perception toward Chinese higher education curriculum in employability preparation. *Education+ Training*.

Wilkes, J., & Burns, A. (2019). A decade of agriculture graduates' employability and career pathways. *International Journal of Innovation in Science and Mathematics Education*, *27*(4).

Wilson, K. R., Niewoehner-Green, J. E., & Rodriguez, M. T. (2019). What are employers looking for? A content analysis of job postings targeting recent graduates in agriculture and natural resources. *NACTA Journal*, *63*(2), 188-192.

Wu, H., & Leung, S. O. (2017). Can Likert scales be treated as interval scales?—A Simulation study. *Journal of social service research*, *43*(4), 527-532.

Yamada, S., & Otchia, C. S. (2021). Perception gaps on employable skills between technical and vocational education and training (TVET) teachers and students: the case of the garment sector in Ethiopia. *Higher Education, Skills and Work-Based Learning*, *11*(1), 199-213.

Yiga, S. (2022). Assessment methodologies and determinants of employability and skills level among Technical and Vocational Education Training (TVET) graduates in Central Uganda. *International Journal of Vocational and Technical Education*, *14*(2), 40-47.

Yorke, M. (2006). *Employability in higher education: What it is – What it is not.* Higher Education Academy/ESECT.

Yorke, M. (2006). Employability in higher education: What it is – What it is not. *Learning and Employability Series One.* The Higher Education Academy. Retrieved from https://www.advance-he.ac.uk.

Yusop, S. R., Rasul, M. S., Mohammad Yasin, R., & Hashim, H. U. (2023). Identifying and Validating Vocational Skills Domains and Indicators in Classroom Assessment Practices in TVET. *Sustainability, 15*(6), 5195.

APPENDIX A: Questionnaire for ATVET Graduates

I am **GUMISIRIZA PONTIANO**, a student pursuing a master's of science degree in agricultural education and extension of Kyambogo University. I am currently doing an academic research about the "*Effectiveness of agricultural vocational education & training in determining employability of its graduate youths in Western Uganda*". I would like to invite you to participate in this study. Your participation is voluntary and you can withdraw at any time without penalty. By completing the survey, you indicate that you voluntarily participate in this research. Thank you.

Confidentiality: The responses you provide will be strictly confidential. No reference will be made to any individual(s) in the report of the study.

SECTION A: Socio-Demographic Characteristics

Circle the appropriate response

A1	Name of Respondent (optional)	……
A2	Sex of Respondent	1) Male 2) Female
A3	Age of Respondent (Full completed years)	……Years
A6	Are you employed?	1)Yes 2) No
A7	Are you currently involved in any agriculture activity?	1) Yes 2) No
A8	How many years of work experience do you have?	----------

A9 Where are you employed?

Code	Organization where employed	Tick as appropriate
1	Public organization	
2	Private organization	
3	Non-government organization/Community-based organization	
4.	Self-employed	

SECTION B: PERCEIVED LEVEL OF COMPETENCE OF AVET GRADUATES

1. On the scale of 1-3 please rate your level of competence in the following employability skills, where

3 = High level of competence - good experience in the skill area

2 = Average level of competence – some experience in the skill area

1 = Low level of competence – little experience in the skill area

Code	Employability skills	1	2	3
A	**Technical competence**			
1	Soil & water management			
2	Annual & perennial crop production			
3	Vegetable Growing			
4	Fruit Growing			
5	Growing of Spice			
6	Mushroom Growing			
7	Flower growing			
8	Skills in entrepreneurship			
9	Agro-Forestry			
10	Pasture Management			
11	Goat & Sheep Production			
12	Cattle production			
13	Poultry production			
14	Piggery production			
15	Rabbit Production			
16	Fish Farming			
17	Beekeeping			
18	Silk Worm Production			
19	Farm Structures			
20	Farm Mechanization			
21	Farm Management			

22	Agricultural Extension services			
B	**Fundamental employability skills**			
1	Effective communication			
2	Management of Information			
3	Analytical/critical thinking skills			
4	Problem-solving ability			
5	Leadership skills			
	Personal Management skills			
1	Positive attitudes and behaviors towards work			
2	Responsibility			
3	Adaptability			
4	Learning Continuously			
5	Working Safely			
C	**Teamwork skills**			
1	Working with others in projects/tasks			
2	Interpersonal skills			

SECTION C: The Factors that Influence Agricultural Vocational Education & Training Graduates' Willingness to Apply Attained Employability Skills in the Job Market

C1. Below are several statements about factors that influence agricultural vocational education & training graduates' intentions to apply employability skills. Please rate the extent you agree or disagree with the following statements. Use the Likert scale of 1-5 where 1= Disagree, 2= Neither Agree nor Disagree, and 3=Agree

Code	Factors that influence willingness	1	2	3
A	**Attitudes towards employability**			
1	I believe that the employable skills that I currently have are very fundamental in enabling me to enter the workforce			
2	I do have transferrable abilities that can enable me thrive in the job market			
3	I believe I do have the employability abilities required in an agricultural related workplace			
4	ATVET has transformed by development as individual and this has enabled me to adequately prepare for the job market			
5	The comprehensive knowledge and technical skills that I have obtained from ATVET are crucial for the work I do			
B	**Subjective norms (Influence of other people)**			
1	Most people who are important to me think the agricultural vocational education & training enhanced my employability			
2	Most people who are important to me think the agricultural vocational education & training can enable me to be self-employed			
3	Most people who are important to me would approve if I engaged in agriculture-related jobs			
4	I feel pressure from people who are important to me to engage in agriculture-related jobs			
C	**Perceived behavioral control (levels of competence in ATVET)**			
1	I am confident in my ability to engage in agriculture-related jobs			
2	ATVET has enabled me to improve my effective communication skills which are valuable employability capabilities			
3	I have the resources and opportunities to create my own agriculture-related job in			
4	I do have high level skills in teamwork, critical thinking, and interpersonal skills which are also one of the most highly valued employability abilities			
5	I believe ATVET boosted skills and knowledge in agriculture that meets the expectations of the world of work (industry)			

SECTION D: The Factors That Influence Employability of Youths Who Graduated in Agricultural Vocational Education & Training

On a scale of 1 to 3, please rate the extent you agree with the following statements. Where 1 = disagree; 2 = not sure; 3 = agree

Code	Intention to be employed in an agri-related job	1	2	3
1	I view AVET related jobs as suitable for me			
2	I realized that there is a lot in common between the AVET curriculum and industry requirements			
3	I think that agri-related jobs pay more attention to the complex character of poverty			
4	I am willing to work in agri-related jobs			
5	I intend to apply the knowledge and skills learned during AVET to become self-employed			

The End

Thank you for your cooperation