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HOLETA POLYTECHNIC COLLEGE (HPC)

EXPLORING THE CAREER PATHWAYS AND EMPLOYABILITY OF GRADUATES: A TRACER STUDY OF HOLETA POLYTECHNIC COLLEGE (2023) GRADUATES

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TRACER STUDY REPORT OF HPC GRADUATES

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AH   Animal Health

AP   Animal production

APT   Animal production Technology

CAF   Capability Approach Framework

CIPP   Content, input, process, product

COC   Center of competence

PPT   Plant production technology

CT   Cooperative training

EASTRIP   East Africa Skills for Transformation and Regional Integration Project

EOS   Ethiopian occupational standard

FGD   Focus group Discussion

FPO   Food processing operation

HNS   Hardware and network service

HPC   Holeta polytechnic college

ICT   Information communication technology

ILO   International labour organization

KfW   Kreditanstalt für Wiederaufbau ("Credit Institute for Reconstruction")

KII   Key Informant Interview

LMSI   Labour market system information

MSE   Micro and small enterprise

MoSHE   Ministry of Science and Higher Education

OS   Occupational standard

PIU   Project implementation unit

SPSS   Statistical package social science

TVET   Technical, vocational and education training

VGC   Vocational guidance and counseling

ABSTRACT

The study aimed at investigating the employment outcomes of HPC graduate, the competencies of instructors and graduates, institutional capacities, and industry partnerships within their respective fields. The research assessed the commitment and expertise of graduates and instructors, the qualitative and quantitative aspects of resource allocation, training and evaluation methodologies involving industry collaboration and cooperative training (CT), and the influence of human and material resources on graduates competency and satisfaction. Data gathering included a census of 124 graduates using pretested questionnaires, along with interviews conducted with 10 employers and 20 college staff members. In total, 154 individuals were participated in this investigation. The results indicated that male graduates experienced employment rates ranging from 68.8% to 100% with the total employment of 91.8%. Conversely, female graduates showed employment rates ranging from 22.2% to 100%, with the total employment rate of 56.4%. Furthermore, the study highlighted that 80.6% of HPC graduates obtained employment. The majority of participants were employed full-time, comprising 85% of the total. Another 10% were employed temporarily. In terms of workplaces, 70% worked in governmental institutions, followed by 22% in private enterprises. These findings underscore the disparities in employment rates between genders and emphasize the importance of targeted interventions to enhance job readiness and advance gender equality in the labor force. Many technical and vocational skills training schemes lack robust ties with the job market. Even after graduation, individuals may still lack the requisite skills desired by the private sector. Strengthening information on job searches, working conditions, and workplace environments serves as benchmarks for graduates' labor market prospects, providing valuable insights for educational institutions and policymakers to enhance graduate outcomes and address employment challenges across various professional sectors.

Key words /phrases: tracer study, HPC graduates, competence, employability, industry linkage

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Technical and Vocational Education and Training (TVET) has gained significant prominence globally as a vital component of educational systems geared towards equipping individuals with practical skills for the workforce (Gyimah, 2020). According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), TVET plays a crucial role in fostering socio-economic development by addressing the skills gap and enhancing employability (UNESCO,2016).

In the context of Ethiopia, TVET has emerged as a crucial component of the country's educational landscape, aiming to address unemployment and meet the demands of a rapidly evolving labor market. According to MoSHE, Ethiopia has made substantial efforts to expand its TVET system, emphasizing industry relevance and partnerships with businesses to ensure skill alignment with market needs (MoSHE, 2019). The Ethiopian government's commitment to TVET is evident through various initiatives, including the establishment of vocational training centers and the integration of TVET programs into mainstream education. However, vocational education is often stigmatized as a pathway for individuals who may not excel in traditional academic settings (Zeleke, 2020).

One of the factors determining the effectiveness of a training institution is the employability of its graduates (Celis, et. al. 2013). As noted by Rasiah (2009), employers tend to point their fingers at institutions of higher learning when graduates remain unemployed because curricula are not industry-relevant. According to Millington (2017), when institutions conduct reviews of programs, they tend to focus on the production process not the products (graduates) of training. In order to learn the contribution of an institution to a country, especially employment prospects, tracer studies of graduates are essential (Lange, and Schomburg, 2003).

Employability upon graduation and over the long term is, understandably, the major priority for the vast majority of our trainees. Over the past years or so the college has increasingly offered a wide spectrum of occupations that provide trainees with the necessary tools enabling them to develop their employability skills, to heighten their own

awareness of these skills and to improve their ability to articulate them. These skills, once acquired, of course need to be honed throughout one's working life, being put into practice not only in job searching and during interviews but also in personal development planning and in making the most of work experience opportunities.

With the steady increase in the number of college graduates, employment opportunities for students have become very competitive. The colleges have the policy to strengthen existing links and to create new bridges with the world of work. In line with the mission of the TVET strategy a prominent college recognized for its commitment to innovative programs in addressing society's challenges, the College evaluates how its graduates have paired in their employment scene after their graduation. The Cooperative training also plays an important role in developing the skills of the college graduates which is done through the different industries that the institution is linked with.

According to the International Labor Organization (ILO, 1996), a tracer study is an impact assessment tool where the impact on a target group is traced back to specific elements of a project or program so that effective and ineffective components of the program may be identified. Tracer studies, also called graduate studies or follow-up studies or destination of leavers from higher education surveys, are also a management tool for planning, monitoring and measuring the relevance of vocational training programs (CTEVT, 2016).

The main goal of tracer study is to develop a clear picture on the situation of graduates after studies. Tracer study should be able to assist stakeholders in the decision making process regarding the responsiveness of the training, on the supply side, to the situation of labor market, on the demand side (NCFHE, 2016). A tracer study is an evaluation and monitoring instrument. The Tracer Study also provides valuable information for evaluating the outcomes of knowledge, skills and competences that HPC transfers to students, hence it serves as a starting point for future planning on improving the course programmes.

1.2. Research Questions

The principal decision problem of the study was the issues related to TVET delivery, quality and relevance and labour market outcomes. Based on this decision problem, the study sought to address the next key questions:

1. What is the employability level of graduates after leaving the training institutions?
2. What is the perception of graduates about the match between their overall competence and workplace requirements?
3. What is the duration of job search to be employed?
4. What is the average income status and satisfaction level of the graduates?
5. What is the satisfaction level of employers towards graduates' competence?

1.3. Objectives of the study

1.3.1 General objectives

The major objective of this study was to assess the whereabouts of 2023 graduates' cohort of HPC.

1.3.2 Specific objectives

Specifically, this study is intended to:

1. Find out the employment status of HPC graduates

2. Examine the perceptions of graduates about the training programme

3. Know how long it takes for a graduate to secure employment

4. Identify the average income status of the graduates' and satisfaction level

5. Examine the satisfaction levels of graduates towards current job.

1.4. Significance of the Study

The purpose of this study is to assess the contribution of the training programs on the graduates, the training relevance to job markets, the employment status of the graduates, and the effectiveness of HPC with respect to the graduates of 2023. In other words, it is to trace the number of graduates who have been waged, employed or self-employed on their occupation, who remains unemployed so far and the reasons behind as well as to

assess the skill gaps of graduates and the relevance of the OSs training had been provided at HPC in the year specified.

This Tracer study was conducted within the framework of the "TVET in Ethiopia with the main objective to provide information on the HPC graduates' job search methods and current employment statuses, employment conditions and on the job training, as well as the quality of the received training at HPC and companies/industries where they have been receiving cooperative training. The approach of this Tracer Study is being widely used especially in training institutions to track and to keep record of trainees once they graduate from the institution. It is the follow-up of graduates, in this case the graduates of TVET colleges. Its objective is to evaluate ones progress up to the time they get a job and beyond. It can be viewed as a simple tool designed to measure the relevance of vocational training. It also helps to monitor the delivery of training. The importance of it is displayed due to the fact that it shows the relevance and quality of programs offered by HPC as well as the conditions the labour market provides to its employees and students receiving technical and vocational training.

The information received in this tracer study will be used for minimizing any possible deficits in a given training program in terms of content, delivery and relevance and for further development of the institution in the context of quality assurance. HPC, companies and policy makers will benefit from the tracer study since it will help them to know what the status of their products after graduating is. The importance of this Tracer study is to measure the relevance of vocational training.

1.5. Scope of the Study

This tracer study focused on investigating the graduates' socio demographic characteristics, job placement profile, the skills/competencies and work-related values that they acquired during their training in the collage that are useful and relevant to enhancing their employability. It also investigates the trainings provided by the college that enhanced these skills/competencies and work-related values to help them meet the demands of their present work. This covered only the graduates Cohort of 2023 in seven fields of study in level **II** and **IV** namely (Animal production, Animal Health, Mechanics,

Hard Ware and Network Services, Food Processing Operation in degree program Animal Production Technology and Plant Production Technology) at HPC.

1.6. Limitation of the study

Despite the efforts made by the vocational guidance and counseling (VGC) team to reach all graduates within the targeted occupation, they encountered challenges in reaching every individual due to restricted mobility caused by occasional conflicts in certain areas. As a result, there are a small number of graduates who were not included in the survey, although their overall representation is minimal compared to the total number of graduates. Additionally, the lack of pre-field work awareness and sensitization meetings between the VGC team and key stakeholders was attributed to constraints in the pre-strategic planning process and time limitations.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1. Concept of TVET

The concept of TVET (Technical and Vocational Education and Training) is concerned with ensuring high performance in all aspects of the academic process, including teaching, learning, infrastructure, and students' behavior (Bhatta, 2023). It is essential for the holistic development of students, providing them with the necessary skills and knowledge for job prospects and achieving academic goals (Ronnie, 2023). Quality assurance plays a crucial role in supporting the development and maintenance of a good TVET system (Monavvarifard and Alibaygi, 2022). In South Africa, there is a need to identify the barriers within and facing the TVET sector to ensure its efficacy (Nordin et.al, 2022).

Agricultural TVET for sustainable development requires systematic implementation based on proper criteria, competencies, and educational methods (Mirabel et.al., 2022). The readiness of TVET graduates for the construction industry in Malaysia can be enhanced through a TVET-CAF framework, focusing on relevance, efficacy, and ways to enhance graduates' skills. TVET provision can be an empowering tool to elevate the socioeconomic status of learners from low socioeconomic backgrounds, providing them with the necessary skills for financial independence and productivity.

2.2. The Role TVET's in economic development

TVET plays a crucial role in economic development by providing skilled and competent workforce for industries, promoting self-reliance, and reducing unemployment rates (Muogahlu & Ahmad, 2023; Ibrahim, 2023). However, there are challenges that need to be addressed in order to maximize the impact of TVET on economic development. These challenges include declining enrollment, mismatch between supply and demand, and quality and relevance concerns (Wafi et. al., 2023). To overcome these challenges, it is important to invest in infrastructure and technology, improve program quality, and strengthen the governance and management of the TVET sector (Lamsal & Bajracharya, 2023).

Additionally, there is a need to update the curriculum, establish partnerships with industries, and provide adequate funding and teachers' training (Alam & Sharmin, 2023). Public-private partnerships and investment in human capital through education, particularly in TVET, are key to achieving sustainable economic development. By addressing these challenges and implementing strategic plans, the TVET sector can contribute significantly to economic growth and prosperity.

2.3. Challenges in TVET implementation

Though TVET continues to steadily gain popularity worldwide it faces several challenges. These include issues with students' motivation, limited financial resources and hardware, teacher capacity limitations, inadequate reward systems, and curriculum misalignment (Sichombe, 2022). Another challenge is the impact of the development environment for overseas education, such as cross-cultural adaptation and language barriers, teaching quality and recognition, market demand and alignment of professions, financial and resource limitations, as well as management and operational challenges (Huang & Zhen,2023).

Additionally, there are challenges related to the use of technology in vocational education, including technological applications, school capabilities, and curricula (Eyadat, ND). These challenges can affect students' achievements and the overall quality of vocational education.

To address these challenges, Terziev & Lyubcheva (2023) and Kovalchuk et. al. (2022) highlighted issues regarding enhancing students' motivation, increasing financial support, providing professional development opportunities for teachers, revamping the reward system, aligning the curriculum with competition requirements, strengthening cross-cultural training and language support, improving teaching quality and degree recognition, understanding local market demands, exploring multiple channels for fundraising and resource acquisition, and establishing sound management systems and operational mechanisms

The challenges in implementing Technical and Vocational Education and Training (TVET) include various factors such as lack of sponsorship for in-service training,

shortage of TVET teachers, inadequate infrastructure, inadequate timing for upgrading TVET lecturers, brain drain, inadequate funding of tertiary institutions, student-related challenges like cultism and examination malpractice, and government-related challenges such as inadequate funding. Additionally, issues like low societal recognition, obsolete instructional facilities, poor staffing, poor linkages with industry, and deficiencies in quality evaluation contribute to the challenges faced in the TVET sector

2.4. Relevance of TVET Graduates Tracer Studies

Tracer studies of TVET graduates are important for several reasons. Firstly, they provide valuable information on the employment profile and opinions of former trainees regarding the quality of training they received (Sichombe, 2022; Gelaw et. al.,2022). These studies help measure the relevance of technical and vocational training programs and assess the skill gaps of graduates (Khairunisa & Firmansyah, 2022). Additionally, tracer studies help identify challenges faced by trainees during their studies, such as inadequate equipment and lack of job attachment opportunities (Brits & Steyn, 2019).

They also highlight the need for additional support and guidance, especially for female graduates, to address unemployment issues (Khirotdin & Mustaffa, 2019). Furthermore, tracer studies contribute to the evaluation and improvement of vocational schools and their accreditation processes. They also assist in assessing the outcomes of the educational experience and enhancing the quality of TVET programs. Overall, tracer studies play a crucial role in measuring the effectiveness of TVET systems, improving employability rates, and meeting the demands of the job market.

2.5. TVET graduate employability: Theories and frameworks

Theories and frameworks of TVET graduate employability have been explored in several studies. One study focused on the employability skills of TVET graduates and found that communication skills were the most useful skill in the workplace (Mariano & Tantoco, 2023). Another study examined the impact of Japanese language programs in TVET on skills development and sustainable employability, highlighting the positive influence of these programs on hard and soft skills development (Alam & Sharmin, 2023).

A proposed Technical Vocational Education and Training Capability Approach Framework (TVET-CAF framework) was also suggested to enhance the career readiness of Construction Technology graduates, emphasizing the relevance, efficacy, and enhancement of graduates' skills (Nordin, 2022). Additionally, a study on engineering graduates emphasized the need for relevant engineering content knowledge, practical workplace experience, and soft skills for employability (Ndlovu & van Wyk, 2023). The industry perspective on employability skills for TVET graduates highlighted the importance of social and communication skills, technological literacy, teamwork, and leadership (Noor, 2023). These studies provide insights into the theories and frameworks surrounding TVET graduate employability.

2.6. Empirical review of TVET graduates' tracer studies

Tracer studies of TVET graduates have been conducted to measure the relevance of training programs and the employment status of graduates (Sichombe, 2022; Gelaw et. al.,2022; Khirotdin & Mustaffa, 2019; Yanos & Espinosa, 2022; Ndlovu, & Van Wyk, 2023). The studies have revealed varying employment rates among graduates, with some facing challenges in finding jobs in their fields of training. The employment status of TVET graduates ranges from 44% unemployed to 56% employed. The studies also highlight the importance of equipping graduates with relevant knowledge, skills, and practical workplace experience to enhance their employability. Furthermore, the studies emphasize the need for improvements in TVET quality, delivery, and curriculum to meet industry needs and enhance graduates' marketability. The findings suggest the importance of addressing challenges such as inadequate equipment, lack of job attachment opportunities, and financial constraints to improve the outcomes of TVET programs.

Tracer studies of TVET graduates in Ethiopia have provided empirical data on their employment outcomes. The studies have revealed that a significant percentage of graduates are unemployed or employed outside their specialization (Gelaw et. al, 2022; Sichombe, 2022). For example, one study found that 44% of respondents were unemployed, while another study reported that 1,061 graduates were still seeking jobs (Khirotdin & Mustaffa, 2019; Siraye & Wale, 2018)

These studies have also identified various challenges faced by TVET graduates, including inadequate equipment, lack of job attachment opportunities, and financial constraints (Mengistu, & Negasie, 2022). Additionally, the studies have highlighted the importance of enhancing employability skills, such as problem-solving, information technology, and entrepreneurial skills, to improve graduates' job prospects. Overall, the findings from these tracer studies provide valuable insights for improving the quality and delivery of TVET programs in Ethiopia and addressing the issue of graduate unemployment.

2.7. Conceptual Framework of the study

In the conceptual framework for the Tracer Study of Technical and Vocational Education and Training (TVET) graduates of HPC, the CIPP (Context, Input, Process, Product) model was used which serves as a guiding framework, underpinned by core values of integrity, impartiality, quality training, trust, responsibility, and respect. Integrity is paramount, ensuring honesty and accuracy in data collection, while impartiality guarantees neutrality and fairness. Quality training underscores a commitment to excellence in TVET programs, while trust fosters transparency and accountability. Responsibility acknowledges the duty to stakeholders, and respect values diverse perspectives.

In the context evaluation, the alignment of the tracer study with national TVET policies and strategic objectives is assessed, along with its consistency with the mission of promoting TVET excellence. Objectives are scrutinized for clarity and relevance, reflecting the aspirations of TVET stakeholders. Inputs are evaluated, including the qualifications of trainers, demographics of trainees, and adequacy of facilities and equipment for data collection and analysis.
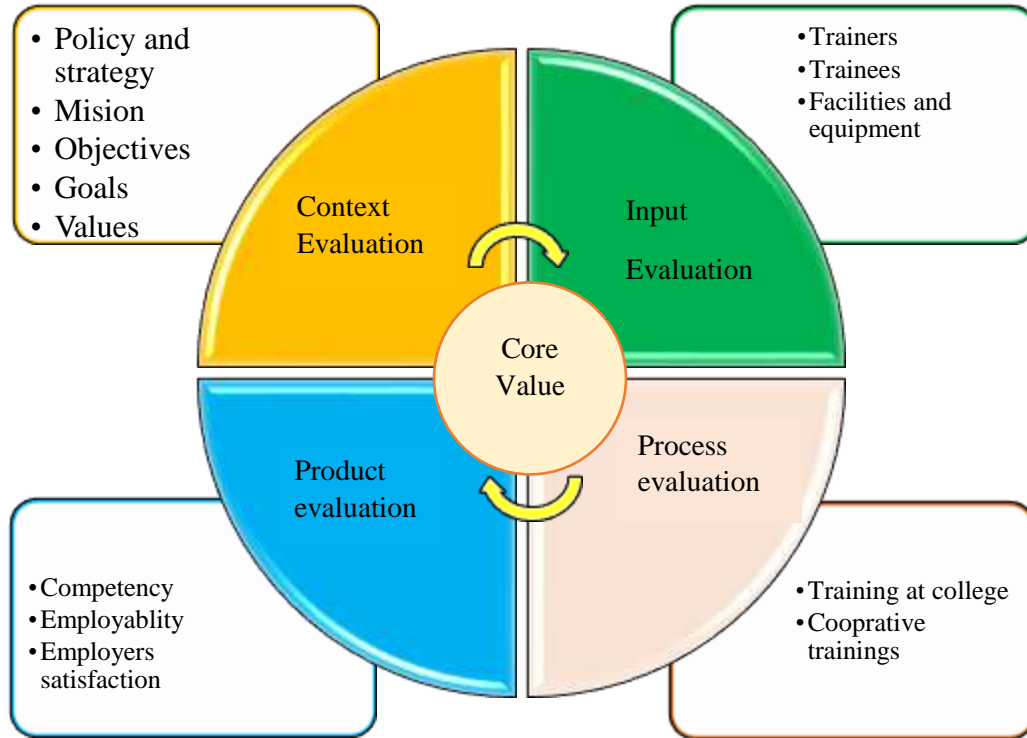
Figure 1 : Conceptual framework of the study

Process evaluation examines the effectiveness of TVET programs in equipping graduates with relevant skills and competencies through college training and cooperative experiences. Product evaluation focuses on assessing graduate competency, employability, and employer satisfaction, reflecting the ultimate outcomes of TVET programs. By employing the CIPP model within this conceptual framework, stakeholders can comprehensively evaluate and enhance the effectiveness of TVET programs, ensuring they meet industry needs and contribute to the continuous improvement of the TVET sector.

CHAPTER THREE: MATERIALS AND METHODS

3.1. Description of the Study Site

The study was carried out at Holeta Polytechnic College (HPC) which is located in Holeta town administration of Oromia region on the main road to Ambo, about 30 km due west of the capital city. The data were gathered from graduate cohort from different part of the country especially Oromia and Amahara regional states where our trainees joined HPC for training in different occupations and levels.
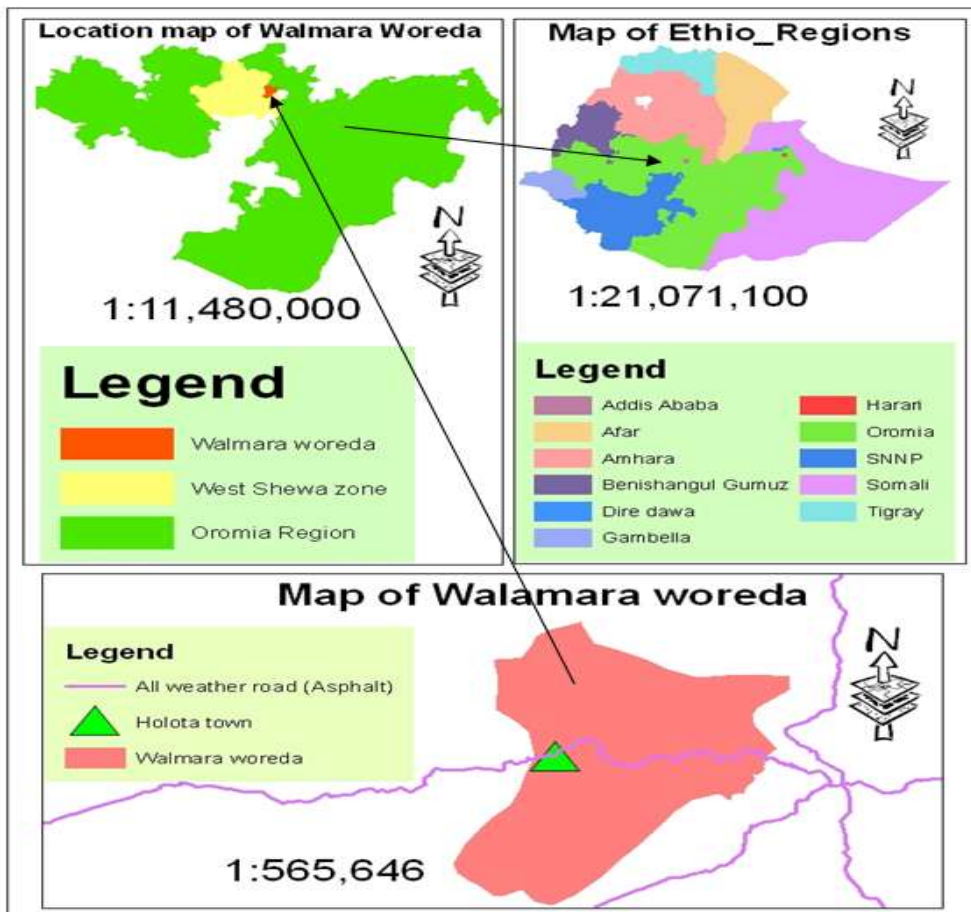
Figure 2: Map of the study area

3.2. Research Design

Descriptive Research Design was employed in the 2023 graduate tracer study at HPC which involves collecting data through surveys, questionnaires, interviews, and

observations to provide a comprehensive snapshot of the post-graduation outcomes and experiences of the cohort.

3.3. Source of Data

Data was gathered from a comprehensive pool of graduates due to their limited numbers. The collection of data involved the utilization of both primary and secondary sources. Various data collection techniques and tools were employed to gather information from multiple sources. As a result, the data sources for this particular study encompassed both primary and secondary sources.

The primary data, which was crucial for achieving the study's objectives, was obtained through the administration of questionnaires and conducting key informant interviews with a total of 2023 graduates, employers of HPC graduates, as well as trainers and management staff at HPC. All of these groups were considered the target population for the study. Additionally, secondary data from the College's trainee record office was utilized to access the lists of the graduates.

3.4. Data Gathering Instruments

I. Questionnaire

In this survey, data was collected through questionnaires and interview guides. The instruments were prepared and pretested by the vocational guidance and counseling (VGC) team based on the research questions set and the literature reviewed. The data collection instruments were both quantitative and qualitative type to enhance the validity and applicability of the findings.

II. Interviews

Semi-structured interviews (focus group discussions and key informant interviews) were conducted with different participant groups in this survey. Graduates, trainers, heads of the departments, College leaders and employers were involved in it. Six to eight participants have been involved in each FGD disaggregated by gender and age with a total of 20 respondents. Key informant interviews (KIIs) were another important data

collection method employed to garner data from sources that have particular access to the information.

III. Observation

In this study some data were also collected through observation to gauge the status of resource supply. In this respect, all forms of resources with particular emphasis to different facilities, infrastructure, workshop organizations, as well as hand tools and equipment were observed.

3.5. Data Analysis

The collected quantitative data were thoroughly audited, cleaned, and all variables coded line-by-line and all codes were entered and analyzed using the Statistical Package for the Social Science (SPSS) version 24 application and excel data sheet. The qualitative data were elicited and narrated obtaining respondents 'opinion, feelings perceptions and suggestions and triangulated ways the quantitative information gained and finally summarize and present the outcome in simple tables using the frequency counts, arithmetic mean, standard deviation and percentages.

3.6. Validity, reliability and Ethical Issues

In the context of the tracer study of Holeta Polytechnic College graduates, the consideration of validity, reliability, and ethical issues was paramount in obtaining precise and trustworthy results. To ensure the validity of the study, a thorough analysis of pertinent aspects such as employment status, job relevance, skills utilization, income levels, and job satisfaction was meticulously conducted. Clear and pertinent survey questions were formulated to align with the study's objectives, ensuring the validity of the research. Face validity was established through pre-testing the survey with a sample of graduates to refine it based on their feedback.

 Reliability was a crucial factor in this study to achieve consistent and dependable results. Various descriptive, behavioral, and perceptual aspects were measured using well-defined survey tools to ensure reliability. For qualitative assessments, standardized evaluation criteria were employed to guarantee the reliability of the tracer study.

Ethical considerations played a significant role in safeguarding the rights and welfare of the participants in this study. Graduates were fully informed about the study's purpose, data usage, and their rights, and provided voluntary consent to participate. Confidentiality and anonymity were maintained through the anonymization of personal data, used solely for the study's purposes. Data protection measures were implemented to securely store and handle data, preventing unauthorized access or breaches in compliance with data protection regulations. The study aimed to avoid any harm to participants, including psychological harm from sensitive questions. Beneficence was upheld by offering insights that could improve TVET programs and enhance graduate employability. Transparency and honesty were prioritized regarding the study's objectives, methods, and findings, disclosing any potential conflicts of interest.

These considerations of validity, reliability, and ethical issues were carefully addressed in conducting the tracer study of Holeta Polytechnic College graduates, providing accurate, consistent, and ethically sound insights into their career pathways and employability. The ultimate goal was to help improve TVET programs and inform policy development.

3.7. Validation of the Study

Tracer study validation workshops are an essential part of the quality assurance process, ensuring that training programs are up-to-date, relevant, and of high quality. This allow for continuous improvement and adaptation to evolving industry needs and societal changes. The steps to be followed are:

- **Sharing the Draft tracer study report**: The draft report is shared with the participants to enhance their understanding of the Tracer study
- **Obtaining Feedback:** Feedback is obtained from participants to enrich the draft report. This feedback draws from participants' experiences and knowledge about the training program and the way survey is conducted and analyzed.
- **Final Statement:** A final statement on the draft tracer study report is agreed upon, which will submitted to HPC then be presented EASTRP/ Funding organization

Based on this, a one to two day workshop was designed for all college management staffs, instructors, surrounding industries representatives/stalk holders, project implementation unit (PIU) team, graduate Alumni association members (included past and present members), private colleges and local governance representatives to validate the findings.

CHAPTER FOUR: RESULTS AND DISCUSSION

The chapter in question provides a comprehensive overview of the study's findings, which are divided into multiple subsections for easy comprehension. The first subsection delves into the rate of return of the graduates who were sampled for the study, shedding light on their economic outcomes post-graduation. Moving on, the second subsection explores the demographic characteristics of these graduates, offering insights into their backgrounds and diversity. The third subsection paints a detailed picture of the profile of graduates specifically from Holeta Polytechnic College (HPC), showcasing their unique attributes and achievements.

As we progress further, the fourth subsection unveils the employment rates of these graduates based on gender and occupation, showcasing any disparities or trends that may exist. The fifth subsection analyzes the effectiveness of HPC's training program outcomes in meeting the demands of the industry, highlighting any areas of success or improvement. Meanwhile, the sixth subsection zooms in on the training conditions at HPC, emphasizing the resources available in terms of materials and human capital to support the students' learning journey.

Moving forward, the seventh subsection delves into the satisfaction levels of the graduates' employers, offering valuable insights into how well the graduates' knowledge, skills, and attitudes align with industry expectations. Lastly, the eighth subsection explores the involvement of companies in the training delivery process, emphasizing the strong connection and collaboration between HPC and the industry. This thorough breakdown of the study's findings provides a holistic view of the impact and effectiveness of HPC's training programs and the graduates' success in the workforce.

4.1. Return Rate

Before analysis took place the data garnered were cleaned and organized by the research team, keeping respondents relevant original information as they involved in the survey. Out of the 132 levels II, level IV and Degree graduates of the targeted cohort, a total of 124 graduates were interviewed for the study. Based on their acquaintance with the study

and their willingness to participate in it, the involved relevant participants were from graduates, trainers, heads of the departments, College leaders and employers were involved in it providing the necessary data

4.2. Demographic Characteristics of Graduates Respondents

Table 1 outlines the demographic characteristics of graduate respondents, including their sex, age, marital status, and qualification level. The respondents were categorized based on their occupation, with a breakdown of the total number of male and female respondents in each category. The age groups of 20-30 and 31-40 were represented, along with the marital status of married and single individuals. The occupations listed include Animal Production (AP), Animal Health (AH), Mechanics, Hardware and Network Services (HNS), Food Processing Operation (FPO), Animal Production Technology (APT), and Plant Production Technology (PPT).

Table 1: Characteristics of the graduate respondents; sex, age, marital status and qualification level

Name of occupation	Sex		Total	Age		Total	Marital status		Total
	M	F		20-30	31-40		Married	single	
AP	6	5	11	1	10	11	10	1	11
AH	15	8	23	21	2	23	2	21	23
Mechanics	6	2	8	7	1	8	5	3	8
HNS	6	11	17	16	1	17	2	15	17
FPO	5	9	14	13	1	14	6	8	14
APT	17	2	19	11	8	19	14	5	19
PPT	29	3	32	25	7	32	13	19	32
Grand Total	84	40	124	94	30	124	52	72	124

Note: AP- Animal production, AH- Animal heath, HNS-Hardware and network services, FPO-food processing operation, APT- Animal production technology, PPT- Plant production technology

The table reveals the distribution of male and female respondents across different occupations, with varying totals for each category. For example, in the Animal Production occupation, there were 6 male and 5 female respondents, totaling 11 individuals. Similarly, the Animal Health occupation has 15 male and 8 female respondents, totaling 23 individuals. The Mechanics occupation has 6 male and 2 female

respondents, totaling 8 individuals. Hardware and Network Services have 6 male and 11 female respondents, totaling 17 individuals. Food Processing Operation has 5 male and 9 female respondents, totaling 14 individuals. Animal Production Technology has 17 male and 2 female respondents, totaling 19 individuals. Lastly, Plant Production Technology has 29 male and 3 female respondents, totaling 32 individuals.

The grand total of graduate respondents across all occupations was 124, with 84 male and 40 female respondents. The age distribution shows that the majority of respondents fall within the 31-40 age group, with a total of 94 individuals, while 30 individuals are in the 20-30 age group. In terms of marital status, there were 52 married respondents and 72 single respondents among the total of 124 individuals. The occupations represented in the table cover a range of fields related to agriculture and technology, highlighting the diverse backgrounds of the graduate respondents. The data presented provides valuable insights into the demographic composition of graduates in various occupational fields.

4.3. Graduates' Profile

The training profile of college graduates is outlined in Table 2. The graduates were categorized based on their level of qualification and the respective fields they have been trained in. The variables considered include the name of the occupation and the frequency of graduates in each category.

In the field of animal production, there are 11 graduates with a qualification level of II, representing 8.9% of the total. For animal health care, there were 23 graduates with a qualification level of IV, making up 18.5% of the total. Mechanics have 8 graduates at a qualification level of II, accounting for 6.5% of the total. In the HNS category, there were 17 graduates with a qualification level of IV, comprising 13.7% of the total. FPO has 14 graduates with a qualification level of IV, representing 11.3% of the total. APT has 19 graduates with a degree qualification, making up 15.3% of the total. PPT has the highest number of graduates with a degree qualification at 32, representing 25.8% of the total.

In general, Table 2 provides insights into the distribution of college graduates based on their training profile and level of qualification. The majority of graduates fall under the PPT category with a degree qualification, while the other categories had varying numbers

of graduates with different levels of qualifications. The data offers a comprehensive overview of the types of occupations and qualifications held by the college graduates.

Table 2:Table Training profile of the college graduates

Variables		Level of qualification	Frequency	%
Name of occupation	Animal production	II	11	8.9
	Animal health	IV	23	18.5
	Mechanics	II	8	6.5
	HNS	IV	17	13.7
	FPO	IV	14	11.3
	APT	BSc	19	15.3
	PPT	BSc	32	25.8
Total			**124**	**100.0**

4.4. Employment Rate of the Graduates

4.4.1. Employment Rate by Sex

Table 3 displays the employment rates of graduates based on sex and occupation. For males, the employment rates vary across different occupations, with percentages ranging from 68.8 % to 100 %. The total employment rate for male graduates was 91.8 %. On the other hand, female graduates also exhibited varying employment rates across occupations, with percentages ranging from 22.2 % to 100 %.

The total employment rate for female graduates was 56.4 %. When combining both sexes, the overall employment rate for graduates was 80.6 %. Out of the total BSc and level-based graduates, 67.12% of level graduates were employed in their training program. This figure is higher than the findings of 2021 and 2022 which were 30.11% and 55.17% for level-based graduates respectively showing an improvement from previous years possibly due to TVT industry linkage.

In terms of specific occupations, the data showed that majority of the occupations scored the highest employment rate for male graduates was 100%, while the lowest was in the AH occupation at 68.8 %. For female graduates, the highest employment rate was also scored for majority of the occupations which was 100%, and the lowest was in the FPO

occupation at 22.2%. The highest rate of employment by male graduates were due to the fact that males have high propensity to move from their vicinity to the other places and apply for any vacancies even un related to their occupations like guard of different organizations than females

Table 3:Employment Rate of HPC graduates by Sex and occupation

Sex		Employment Status by Gender and occupation							Total
		AP	AH	Mech	HNS	FPO	APT	PPT	
Male	N	6	11	6	5	4	17	29	78
	%	100.0%	73.3%	100.0%	83.3%	80.0%	100.0%	100.0%	92.86%
Female	N	5	4	2	4	2	2	3	22
	%	100.0%	50.00%	100.0%	36.4%	22.2%	100.0%	100.0%	55.00%
Total	N	11	15	8	9	6	19	32	100
	%	100.0%	65.2%	100.0%	52.9%	42.9%	100.0%	100.0%	80.6%

Note: AP- Animal production, AH- Animal heath, HNS-Hardware and network services, FPO- food processing operation, APT- Animal production technology, PPT- Plant production technology

The employment rates of graduates vary by sex and occupation, with some occupations showing higher employment rates than others. The data highlighted the importance of considering these factors when analyzing the overall employment rate of graduates.

4.4.2. Employment Rate by Occupation and Duration

Table 4 shows the time it takes by graduates to get a job in different occupations and duration, based on their gender. The occupations listed are Animal Production (AP), Animal Health (AH), Mechanics (Mech), Hardware and Network Services (HNS), Food Processing Operation (FPO), Animal Production Technology (APT), and Plant Production Technology (PPT).

For males who are employed, 74 % got a job within 6 months while only 4 % took between 7-9 months to find employment. For females who were employed, 17% found work within six months while 5% took between seven to nine months before they could secure employment opportunities. This means that more males were able to find a job quickly compared to females in this study.

Table 4 also depicted the time it took for graduates to get a job in different occupations, based on their gender. In terms of the time it took to find a job, the data showed that

males had a higher percentage of finding a job within 0-6 months compared to females. This could be due to various factors such as the type of occupations they were applying for, their qualifications, or even discrimination based on gender.

Table 4:Time taken to get job in months Vs Sex

Sex	Time taken in month		Employment Status by Gender and occupation							Total
			AP	AH	Mech	HNS	FPO	APT	pPT	
Male	0-6	N	6	11	6	4	4	16	27	74
		%	54.55	73.33	75.00	44.44	66.67	84.21	84.38	74
	7-9	N	0	0	0	1	0	1	2	4
		%	0	0	0	11.11	0	5.26	6.25	4
Female	0-6	N	3	4	2	2	1	2	3	17
		%	27.27	26.67	25	22.22	16.67	10.53	9.38	17
	7-9	N	2	0	0	2	1	0	0	5
		%	18.18	0	0	22.22	16.67	0	0	5
Total		N	11	15	8	9	6	19	32	100

Note: AP - Animal production, AH- Animal heath, Mech - Mechanics, HNS - Hardware and network services, FPO - food processing operation, APT- Animal production technology, PPT - Plant production technology

Overall, the data in this table provides insights into the time it took for individuals to find a job based on their gender and occupation. It highlights potential differences in job search outcomes between males and females in the specific occupations listed.

4.4.3. Employed graduates Job relationship to their Occupations

The extent that graduate respondents' current work related to the field of their training was assed using Likert scale questions (the five point scale types). Accordingly, majority of the graduate respondents, nearly 73% of them were engaged in the work that has direct relationships with the occupation in which they have been trained, about 16% of graduate respondents work where more or less related to the occupation they have trained in, 4% were engaged on less related to the occupation, and the rest about 7% of them were seen engaged in work that has no relationship with their field of study (figure 3). This indicates that there might be a match between the training program of the TVET institutions and the labour market demand of the qualified workforce and or the graduates.
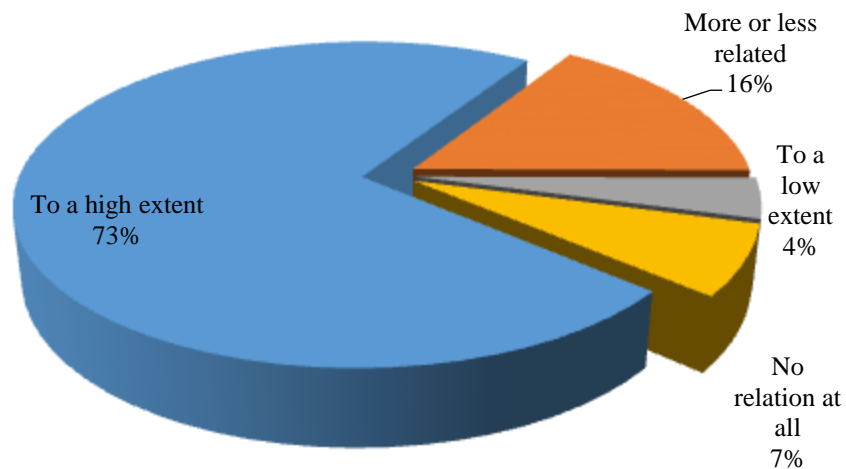
Figure 3 : Employed graduates job relationships to their occupation

4.4.4. Employment status of HPC graduates by level

Table 5 presents a detailed breakdown of the employment status of graduates from the HPC program based on their level of qualification. The data revealed that in the Level II category, a significant 100% of graduates had secured employment. Moving up to Level IV, the employment rate dropped to 55.6%, with 44.4% of graduates still seeking job opportunities. Interestingly, all graduates holding a BSc degree have successfully found employment, resulting in a 100.0% employment rate within this category due to the fact that they were upgrading their study while on job.

Table 5: Employments status of HPC graduates by level

Level of qualification	Are you currently employed?			Total
	Measurement	Yes	No	
II	N	19	0	19
	%	100%	0	100%
IV	N	30	24	54
	%	55.6%	44.4%	100.0%
BSc	N	51	0	51
	%	100.0%	0.0%	100%
Total	N	100	24	124
	%	80.6%	19.4%	100.0%

Overall, the data shows that 80.6% of HPC program graduates are currently employed, while 19.4% are still looking for work. These statistics offer valuable insights into the employment outcomes of HPC graduates at different qualification levels, highlighting the strengths and areas for improvement within the program. By analyzing this information, the college and policymakers can make informed decisions to better prepare future graduates for successful employment in the field.

4.4.5. Methods of Job search

The different methods used by employed graduates to search for jobs were presented in Figure 3. The figure showed five methods and their corresponding percentage of different job search methods. The first method was media advertisements, which was only used by 3% of employed graduates in their job search. This could include job postings on websites, newspapers, or social media platforms.

Watching noticeboards was the most common method used by employed graduates with a percentage of 62%. Noticeboards are physical boards usually found in public places like universities or community centers where employers post job vacancies.

Only one respondent reported finding the current job through apprenticeship contacts, which means he/she likely got hired through connections made during an apprenticeship program.
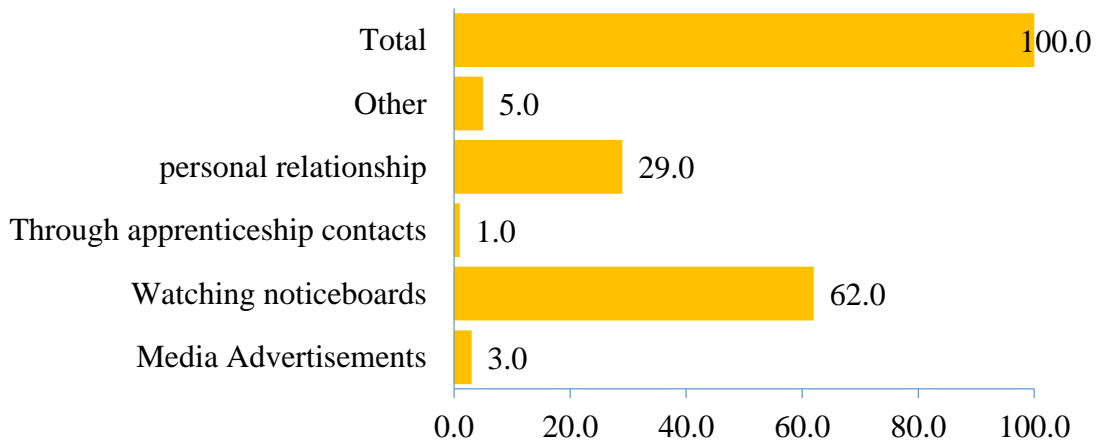
Figure 4: Employed graduate job search methods

Personal relationships were also commonly utilized with 29% reporting using this method in their job search. This could involve reaching out to friends or family members who work at companies that are hiring or networking events where you meet people who can refer you to potential employers.

Lastly, there were five respondents who reported using other methods not specified in the table. This figure provides understanding into the various ways employed graduates searched for jobs and highlights how watching noticeboards was the most popular method among them.

4.5. Effectiveness of HPC Training Program

4.5.1. Helpfulness of Training Condition at the College

Figure 4 shows the results of a survey where graduates were asked to rate how helpful the training, they received at HPC was. The ratings are divided into four categories: highly helpful, somehow helpful, a little helpful, and not helpful at all.
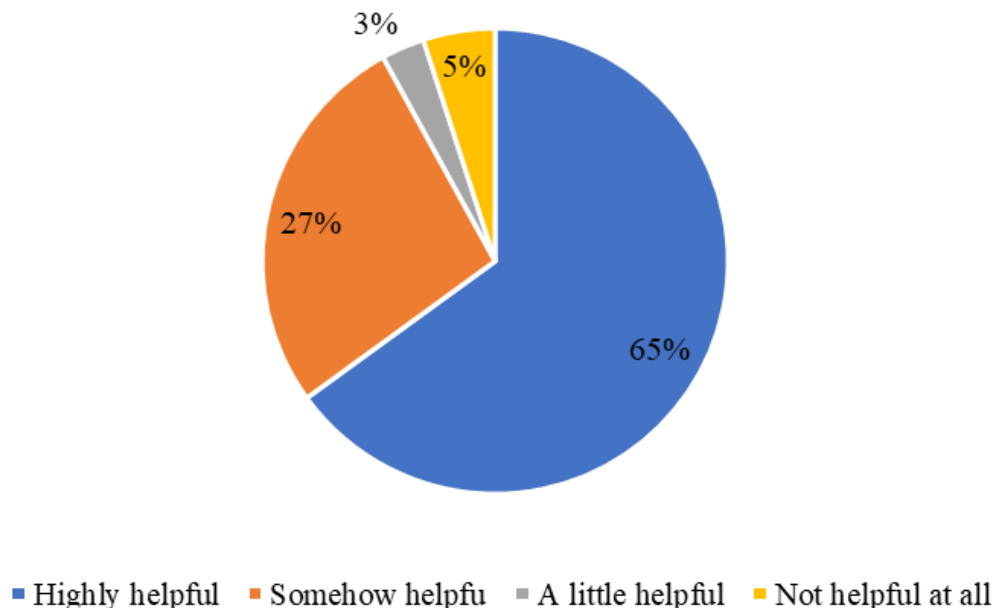
Figure 5: Graduates' rating of Helpfulness of training received at HPC

Out of 100 respondents, 65% rated the training as highly helpful (which is the highest rating), while 27% rated it as somehow helpful. Only three percent thought it was only a

little bit useful, and five percent said it wasn't useful at all. Overall, most graduates found the training they received at HPC to be very or somewhat beneficial.

4.5.2. Type, organization and Sector of employment

The type, organization, and sector of employment of HPC graduates of 2023 were depicted in Table 6. The variables considered included the type of employment, where individuals are employed, and the area of specialization. In terms of the type of employment, the majority of graduates surveyed were full-time employees, accounting for 85% of the total. Part-time employees made up only 2%, while temporarily employed individuals constituted 10%, and self-employed graduates made up 3% of the total sample.

When considering where graduates were employed, the data shows that 70% worked in government organizations, 22% in private organizations, 3% in nongovernmental organizations, and 5% were self-employed.

Table 6: Organization type employment of HPC graduates

variables	Type	Frequency	Percent
Type of employments	Fulltime employee	85	85.00
	Part-time employee	2	02.00
	Temporarily employed	10	10.00
	Self-employment	3	03.00
Total		100	100
Where employed	Government organization	70	70.00.
	Private organization	22	22.00
	Nongovernmental organization	3	3.00
	Self-employed	5	5.00
Total		100	100
Area of specialization	Construction trades, craft, trade and	16	16.00
	Commercial, clerical business and public	2	2.00
	Agriculture, forestry and fisheries	77	77.00
	Health and health related	2	2.00
	ICT	1	1.00
	Other	2	2.00
Total		100	100.00

Lastly, the area of specialization of the graduates surveyed varied. The highest percentage, 77%, was in agriculture, forestry, and fisheries. Construction trades, craft, trade, and industrial sectors accounted for 16%, while commercial, clerical business, and public administration made up 2%. Health and health-related fields, as well as ICT, each represented 1% of the total, with the remaining 2% falling under the category of "Other."

In general, the distribution of employment types, organizations, and sectors among the surveyed graduates was depicted in the table in detail. The majority were full-time employees working in government organizations, with a significant portion specializing in agriculture, forestry, and fisheries. This information sheds light on the employment landscape and areas of specialization within the surveyed population.

As the Key informant interview observations, they argued that:

… some of the graduates are working in different organizations in unrelated field as part time worker and contract bases with less fees until professional vacancies found and invite them to be hired, like in Floriculture farm, private college sanitation, drug store and guard of different organizations.

4.5.3. Graduate Monthly Income and Job Satisfaction

Table 7 displays the satisfaction rate with the current job of HPC graduates based on different monthly income brackets. The data is segmented into five income categories: less than 1500 Birr, 1501-2500 Birr, 2501-4000 Birr, 4001-6000 Birr, and greater than 6000 Birr. Each category shows the number of individuals who are satisfied and dissatisfied with their jobs, along with the total number of respondents in that income range.

In the income bracket of less than 1500 Birr, 2 (29%) graduates were satisfied with their current job, while 5 (71%) individuals were dissatisfied, making up a total of 7 respondents. Moving on to the 1501-2500 Birr category, 5 (56%) graduates were satisfied, and 4 (44%) graduates were dissatisfied, totaling 9 respondents. The 2501-4000 Birr income range shows 16 (67%) satisfied graduates and 8(33%) dissatisfied individuals out of a total of 24 respondents.

Table 7: Satisfaction rate with current job vs monthly income

No	Monthly income	Job satisfaction			Total	%
		Yes	%	No		
1	<1500Birr	2	29%	5	7	7.00
2	1501- 2500Birr	5	56%	4	9	9.00
3	2501- 4000Birr	16	67%	8	24	24.00
4	4001-6000 Birr	9	56%	7	16	16.00
5	>6000 Birr	40	91%	4	44	44.00
Total		72		28	100	100.00

In the 4001-6000 Birr category, 9 (56%) graduates were satisfied with their job, while 7 (44%) graduates were dissatisfied, making up a total of 16 respondents. Lastly, in the income bracket of greater than 6000 Birr, 40 (91%) graduates were satisfied, and 4 (9%) individuals were dissatisfied, totaling 44 respondents. Overall, the data from all income categories combined shows that out of 100 respondents, 72(72%) were satisfied with their current job, while 28 were dissatisfied, resulting in a dissatisfaction rate of 28%.

4.5.4. Unemployed graduate job search methods

The job search methods used by unemployed graduates of Holeta Polytechnic College were presented in Table 8. The results indicated that the majority of respondents, 95.8 % of cases, relied on watching job vacancies through various sources such as the internet, newspapers, and advertisement boards. This method is commonly referred to as passive job searching since individuals are waiting for opportunities to come their way.

In addition to this, 45.80% of cases of graduates preferred contacting companies directly through speculative applications, which involves sending out resumes and cover letters even when there are no advertised job openings available.

Another significant method employed by 66.70% of cases of respondents in their search process was utilizing personal contacts such as parents, relatives and friends who can provide them information about potential employment which serves as a launch pad into further exploration. Interestingly enough we see only a very small percentage (0.04% of cases) opted using government agencies.

Table 8 : Job search Method by unemployed HPC (Holeta Polytechnic College) graduates

Particulars	Responses		Percent of Cases
	N	Percent	
Watching job vacancies (e.g. Internet, newspaper, advertisement boards etc.)	23	45.1%	95.8%
Contacting companies/enterprises directly (speculative application)	11	21.6%	45.8%
By using personal contacts (e.g., parents, relatives, friends)	16	31.4%	66.7%
Using government agency	1	2.0%	4.2%
Total	51	100.0%	212.5%

Overall, it does seem like there's a variety of effective strategies that HPC graduates use while searching for work depending on one's willingness along with trade-off between complexity and time- duration criteria while selecting preferable approach.

4.5.5. Unemployed graduates Response on Major Bottlenecks

Table 9 presents the major bottlenecks faced by unemployed graduates of HPC (Holeta Polytechnic College) to get job. The responses indicated various reasons hindering not to get job among graduates. These reasons include professions not being in demand in the market, intense competition for employment, employment requirements favoring higher-level graduates, professions requiring significant investments, unattractive salaries, and the negative impact of nepotism and corruption on employment opportunities.

The responses showed that a significant percentage of graduates face challenges due to their professions not being sought after in the job market, making up 4.00% of cases. Additionally, 20.00% of cases attributed the difficulty in securing employment to intense competition in the job market. A substantial 56.00% of cases highlighted that employment requirements provided fewer opportunities for graduates at the level of the respondents.

Table 9: Bottleneck of job search by unemployed graduates of HPC

Particulars	Responses		Percent of Cases
	N	Percent	
Your profession is not demanded in the market	1	1.70%	4.00%
You can't win in the competition for employment	5	8.60%	20.00%
employment requirements give less opportunity for level graduates	14	24.10%	56.00%
Your profession demands a huge investment	20	34.50%	80.00%
Salaries offered are not attractive	1	1.70%	4.00%
Employment opportunities are affected by nepotism and corruption	17	29.30%	68.00%
Total	58	100.00%	232.00%

Moreover, a considerable 80.00% of cases mentioned that professions demanding a substantial investment posed a significant barrier to employment. The responses also indicated that 4.00% of cases are deterred by unattractive salaries offered in the job market. Furthermore, nepotism and corruption were identified as significant factors affecting employment opportunities, accounting for 68.00% of cases.

4.6. Training Conditions of HPC

4.6.1. Occupational Relevance of the Training

Table 10 presents a comprehensive insight into the perception of occupational relevance among graduates of Holeta Polytechnic College, offering valuable perspectives on their educational experiences and career preparedness. Through the utilization of mean perception scores alongside percentages, the data provide a rich understanding of graduates' views on the alignment of their education with the demands of the job market and industry requirements.

Firstly, regarding the relevance of graduates' occupations to the job market, the mean perception score of 2.77 corresponds with the fact that 51.6% of graduates perceive their occupations as adequately relevant, with an additional 14.8% feeling they exceed market demands. This robust majority suggests a high level of confidence in the applicability of

their skills and knowledge in professional settings, thus corroborating the positive perception underscored by the mean score.

Table 10: Perception of occupational relevance of Holeta Polytechnic College graduates

Items	IA (%)	SAD (%)	CD (%)	AD (%)	MA (%)	Graduates (N = 124)	
						μ	σ
Relevance of your occupation to the job market	4 (3.2)	38 (30.6)	- (-)	64 (51.6)	18 (14.5)	2.77	0.73
The theoretical content of the Occupational stranded (OS)	5 (4.0)	16 (12.9)	(-) -	86 (69.4)	17 (13.7)	2.93	0.65
Fitness to workplace dynamics	8 (6.5)	20 (16.1)	- (-)	90 (72.6)	6 (4.8)	2.76	0.64
Fitness to the local industry (market)	4 (3.2)	45 (36.3)	1 (0.8)	70 (56.5)	4 (3.2)	2.62	0.65
Counseling and career guidance service	33 (26.6)	33 (26.6)	- (-)	49 (39.5)	9 (7.3)	2.27	0.94
Grand mean						2.6	

Note:1. IA = Inadequate; 2. SAD = Somewhat adequate; 3. CD = Can't decide. 4. AD = Adequate; 5. MA = More than adequate

Secondly, the analysis of the theoretical content of the occupational strand reveals a similarly positive trend, with a mean perception score of 2.93. This aligns with the fact that a substantial 69.4% of graduates perceive the theoretical content as adequate, and an additional 13.7% consider it more than adequate. Such overwhelming satisfaction highlights the institution's success in delivering comprehensive theoretical insights essential for professional success, thus reinforcing the positive perception reflected in the mean score.

Additionally, graduates' express confidence in their preparedness to navigate workplace dynamics, as evidenced by the mean perception score of 2.76, complemented by the fact that 72.6% perceive their education as adequately preparing them for workplace

dynamics. This robust majority further underscores the institution's success in fostering professional readiness, affirming the positive perception reflected in the mean score.

However, while graduates generally perceive their fitness to the local industry as adequate, as indicated by the mean perception score of 2.62, there is room for improvement. The data reveal that while 56.5% of graduates perceive their fitness as adequate, only 3.2% believe it exceeds industry expectations. This suggests a perceived gap between the skills imparted by the educational institution and the specific needs of the local job market. Addressing this misalignment could involve closer collaboration between the college and local employers, as well as integrating more industry-relevant training into the curriculum.

Lastly, the varied perception regarding counseling and career guidance services, with a mean perception score of 2.27, is supported by the fact that only 39.5% of graduates perceive these services as adequate. This indicates opportunities to enhance the quality and accessibility of support services for students, empowering graduates to make informed career decisions and navigate their professional journeys effectively.

In conclusion, the detailed analysis of graduates' perceptions, supported by percentages, provides valuable insights into the strengths and areas for improvement within the educational programs and support services offered by Holeta Polytechnic College. By addressing these findings, the institution can better align its offerings with the needs of both students and the local job market, ultimately enhancing graduate employability and success in the workforce.

4.6.2. Methods of Training in the College

Table 11 depicts a comprehensive overview of graduates' perceptions regarding the training methods employed by Holeta Polytechnic College, offering valuable insights into various aspects of the educational experience. Through the analysis of mean scores and percentages, we gain a nuanced understanding of how graduates perceive the effectiveness and adequacy of different training methods in preparing them for the workforce.

Table 11: Graduates perception on training methods of Holeta Polytechnic College

Items	IA (%)	SAD (%)	CD (%)	AD (%)	MA (%)	Graduates (N = 124)	
						μ	σ
Emphasis on trainees' learning needs	6 (4.8)	41 (33.1)	- (-)	69 (55.6)	8 (6.5)	2.64	0.68
Reliance on trainee record book	17 (13.7)	27 (21.8)	38 (30.6)	41 (33.1)	1 (0.8)	3.13	1.41
Adherence to work safety	25 (20.2)	35 (28.2)	1 (0.8)	54 (43.5)	9 (7.3)	2.40	0.92
Continuous competence assessment	5 (4.0)	15 (12.1)	- (-)	96 (77.4)	8 (6.5)	2.86	0.58
Feedback delivery	10 (8.1)	22 (17.7)	1 (0.8)	83 (66.9)	8 (6.5)	2.74	0.73
Practice of competency-based training	17 (13.7)	38 (30.6)	- (-)	56 (45.2)	13 (10.5)	2.52	0.86
Industrial attachment	34 (27.4)	45 (36.3)	- (-)	43 (34.7)	2 (1.6)	2.10	0.82
Workshop and material utilization	30 (24.2)	34 (27.4)	- (-)	57 (46.0)	3 (2.4)	2.27	0.86
Attention to practical exercise	15 (12.1)	42 (33.9)	- (-)	59 (47.6)	8 (6.5)	2.48	0.79
Attention to theoretical concepts	2 (1.6)	14 (11.3)	- (-)	97 (78.2)	11 (8.9)	2.94	0.51
Grand mean						2.61	

Note:1. IA = Inadequate; 2. SAD = Somewhat adequate; 3. CD = Can't decide. 4. AD = Adequate; 5. MA = More than adequate

Furthermore, the reliance on trainee record books receives high praise, with a mean perception score of 3.13. Graduates overwhelmingly perceive this method as effective, with 33.1% considering it adequate and an additional 30.6% finding it can't decide. This suggests that the structured approach of using record books to track progress and

performance did not clearly contribute to the effectiveness of training programs. This is likely because BSc programs do not utilize trainees' record books.

However, despite efforts in other areas, there seems to be a perceived gap in adherence to work safety standards, with a mean perception score of 2.40, falling below the weighted mean score. While 43.5% perceive adherence to work safety as adequate, only 7.3% believe it exceeds expectations, suggesting room for improvement in aligning training practices with industry safety standards.

On the other hand, continuous competence assessment receives high praise, with a mean perception score of 2.86. The majority of graduates (77.4%) perceive this method as adequate, with an additional 6.5% finding it more than adequate, indicating that ongoing assessment contributes positively to skill development and readiness for the workforce.

Similarly, feedback delivery during training is well-received, with a mean perception score of 2.74. A significant portion of graduates (66.9%) perceive feedback delivery as adequate, with an additional 6.5% finding it more than adequate, reflecting effective communication channels between trainers and trainees, which are essential for guiding learning and improving performance.

Despite these positive aspects, there are areas for improvement, such as the practice of competency-based training, which received a mean perception score of 2.52, falling below the weighted mean. While 45.2% perceived this method as adequate, only 10.5% believed it exceeds expectations, suggesting a need for greater alignment with industry demands.

Industrial attachment and workshop utilization also received relatively low perception scores, indicating perceived inadequacies in providing real-world experience and practical training opportunities. These findings underscore the importance of integrating hands-on learning experiences and industry-relevant practices into the curriculum to better prepare graduates for the workforce.

The detailed analysis of graduates' perceptions regarding training methods provided valuable insights into the strengths and areas for improvement within the educational programs offered by Holeta Polytechnic College. By addressing these findings and

enhancing training methods accordingly, the institution can better prepare graduates for successful careers in their respective fields, ultimately contributing to their employability and professional success.

According to the focus group discussion participants:

..... in the revision and change of the curriculum, the mandate of the stalk holders were not fully addressed especially the regional bureau and training institutions. According to the participant respondents, the frequent revision of the OS is due to lack of predefined standardized guideline that fit to the specific level of training program. Expertise capability and coordination to set readily accepted occupational standard is under question. According to this discussion also, the redesigning and revision of curriculum should be at least at three years interval after assessing its impact on the sector.

... the OSs that were previously developed did not work to consider the current situation of the country and the labor market, occupational analysis was not performed to the required standard or following international standards, there was insufficient discussion of the review process and the OS was not utilized as a resource, and there was insufficient monitoring and support work for its implementation

... in addition, the participants asserted that, there are gaps in our curriculum in terms of encouraging, comparing and implementing indigenous knowledge thereby enhancing their research and reasoning skills and …. they also indicated that training modules has no assigned credit points so that training completers can't accumulate and transfer credits to advance their training qualifications, both horizontally in other occupational areas and vertically in related fields for the training levels.

4.6.3. Facilities of Training Delivery

Table 12 displays the results of a survey conducted to gauge the perception of graduates regarding the facilities for training delivery at Holeta Polytechnic College. The table included various items such as workshops, hand tools and equipment, machinery, consumable materials, workshop furniture, maintenance service, power supply, computers, internet access, water supply, reading materials and modules/teaching materials. The data is presented in percentages across five categories: Inadequate (IA),

Somewhat Adequate (SAD), Adequate (AD), More than Adequate (MA), and Can't Decide (CD). The mean score was calculated using weighted means with a result of 2.31. Any item with a mean score higher than 2.31 was considered to have a high perception while those with scores lower than 2.31 were deemed to have a low perception.

According to the results obtained from the survey, there was a low perception among graduates regarding the facilities for training delivery at Holeta Polytechnic College. Workshops had an average score of 2.23 indicating low perception among graduates with only 44.4% rating it as adequate while 29% rated it as somewhat adequate. Hand tools and equipment also had a low rating with an average score of 2.27 and only 45.2% rating it as adequate.

Similarly, machinery had an average score of 2.20 indicating low perception among graduates with only 38.8% rating it as adequate while consumable materials had an average score of 2.30 again indicating low perception among graduates with only 46% rated it as adequate.

Maintenance service received an average score of 1.77 which is considerably lower than other items on the list suggesting that graduates had very little confidence in this area.

On the other hand, power supply received a high overall assessment from graduates with an average score of 2.53 showing that majority rated it above adequate. Computers were also perceived to be below par by most respondents with an average score of just over two while internet access received similar ratings suggesting that these areas need significant improvement.

Water supply received high ratings from most respondents with an average score of 2.80 which indicates that they are satisfied in this area. Reading materials and modules/teaching materials also scored highly in the survey implying that they are well-equipped in these areas which is essential for effective learning.

Table 12: Graduates perception on facilities of training delivery by Holeta Polytechnic college

Items	IA (%)	SAD (%)	CD (%)	AD (%)	MA (%)	Graduates (N = 124)	
						μ	σ
Workshops	31 (25.0)	36 (29.0)	1 (0.8)	55 (44.4)	1 (0.8)	2.23	0.87
Hand tools and equipment	28 (22.6)	38 (30.6)	1 (0.8)	56 (45.2)	1 (0.8)	2.27	0.85
Machinery	28 (22.6)	46 (37.1)	1 (0.8)	48 (38.7)	1 (0.8)	2.20	0.83
Consumable materials	30 (24.2)	33 (26.6)	2 (1.6)	57 (46.0)	2 (1.6)	2.30	0.91
Workshop furniture	35 (28.2)	35 (28.2)	1 (0.8)	51 (41.1)	2 (1.6)	2.19	0.90
Maintenance service	59 (47.6)	39 (31.5)	- (-)	24 (19.4)	2 (1.6)	1.77	0.88
Power supply	3 (2.4)	54 (43.5)	- (-)	65 (52.4)	2 (1.6)	2.53	0.58
Computers	43 (34.7)	36 (29.0)	- (-)	44 (35.5)	1 (0.8)	2.02	0.86
Internet access	24 (19.4)	55 (44.4)	- (-)	43 (34.7)	2 (1.6)	2.19	0.76
Water supply	4 (3.2)	28 (22.6)	- (-)	81 (65.3)	11 (8.9)	2.80	0.64
Reading materials	12 (9.7)	29 (23.4)	- (-)	80 (64.5)	3 (2.4)	2.60	0.70
Modules and teaching materials	6 (4.8)	35 (28.2)	- (-)	78 (62.9)	5 (4.0)	2.66	0.64
Grand mean						2.31	

Note:1. IA = Inadequate; 2. SAD = Somewhat adequate; 3. CD = Can't decide. 4. AD = Adequate; 5. MA = More than adequate

Overall, this survey highlights areas where Holeta Polytechnic College needs to improve its facilities for training delivery to meet the expectations of its students and ensure quality education is provided to future generations.

4.6.4 Competency and Commitment of the Trainers

Table 13 depicts the perception of graduates from Holeta Polytechnic College regarding the competency of their trainers. The items assessed include subject matter knowledge, practical skills, project formulating competence, competence assessment practice, communication skills, and determination to trainee competence. The responses were categorized as Inadequate (IA), Somewhat adequate (SAD), Adequate (AD), More than adequate (MA), and Can't decide (CD).

For subject matter knowledge, 22.6% of graduates found it to be Somewhat adequate, 61.3% Adequate, and 16.1% More than adequate, with a weighted mean of 2.94 indicating a High perception.

Table 13: Perception of graduates of Holeta Polytechnic College on trainers' competency

Items	IA (%)	SAD (%)	CD (%)	AD (%)	MA (%)	Graduates (N = 124)	
						μ	σ
Subject matter knowledge	- -	28 (22.6)	- (-)	76 (61.3)	20 (16.1)	2.94	0.62
Practical skills	7 (5.6)	29 (23.4)	- (-)	78 (62.9)	10 (8.1)	2.73	0.69
project formulating competence	43 (34.7)	34 (27.4)	1 (0.8)	43 (34.7)	3 (2.4)	2.07	0.93
Competence assessment practice	8 (6.5)	17 (13.7)	- (-)	91 (73.4)	8 (6.5)	2.80	0.65
communication skills	- -	21 (16.9)	- (-)	82 (66.1)	21 (16.9)	3.00	0.58
Determination to trainee competence	3 (2.4)	29 (23.4)	- (-)	81 (65.3)	11 (8.9)	2.81	0.62
Grand mean						2.72	

Note:1. IA = Inadequate; 2. SAD = Somewhat adequate; 3. CD = Can't decide. 4. AD = Adequate; 5. MA = More than adequate.

In terms of practical skills, 5.6% rated it as Inadequate, 23.4% as Somewhat adequate, 62.9% as Adequate, and 8.1% as More than adequate, resulting in a weighted mean of 2.73 and a high perception. However, when it comes to project formulating competence,

34.7% perceived it as Inadequate, 27.4% as Somewhat adequate, 34.7% as Adequate, and only 2.4% as More than adequate, giving a weighted mean of 2.07 and a Low perception.

Regarding competence assessment practice, 6.5% rated it as Inadequate, 13.7% as Some what adequate, 73.1% as Adequate, and 6.5% as More than adequate, resulting in a weighted mean of 2.80 and a high perception. For communication skills, 16.9% found it to be Some what adequate, 66.1% Adequate, and 16.9% More than adequate, with a weighted mean of 3.00 indicating a high perception.

Lastly, determination to trainee competence was rated as Inadequate by 2.4%, Somewhat adequate by 23.4%, Adequate by 65.3%, and more than adequate by 8.9%, with a weighted mean of 2.81 and a high perception. In general, the graduates generally perceived their trainers to have high competency in subject matter knowledge, practical skills, competence assessment practice, communication skills, and determination to trainee competence, but there is room for improvement in project formulating competence.

Table 14 below depicted the perception of graduates from Holeta Polytechnic College regarding the commitment of trainers across various categories. In terms of trainer motivation, 62.1% of graduates perceived it as adequate, while 14.1% found it to be more than adequate. The weighted mean for this category is 2.87, indicating a high perception overall. Similarly, in the category of classrooms management capability, 69.4% of graduates viewed it as adequate, with a weighted mean of 2.87, also indicating a high perception. Similarly, when it comes to respect for trainees, 66.9% of graduates perceived it as adequate, with a weighted mean of 2.95, suggesting a high perception in this area.

However, the availability of workplace facilities received a low perception, with 59.7% of graduates viewing it as adequate with a mean score of 2.68 which was found out to be below the weighted mean.

In terms of occupational passion, 75.8% of graduates perceived it as more than adequate, with a weighted mean of 3.03, indicating a high perception. Similarly, occupational knowledge and skill were also perceived highly by the majority of graduates.

Table 14: Perception of graduates of Holeta Polytechnic College on trainers' Commitment

Items	IA (%)	SAD (%)	CD (%)	AD (%)	MA (%)	Graduates (N = 124) μ	σ
Trainer motivation	5 (4.0)	24 (19.4)	- (-)	77 (62.1)	18 (14.5)	2.87	0.70
Classrooms management capability	1 (0.8)	27 (21.8)	- (-)	86 (69.4)	10 (8.1	2.87	0.70
Respect for trainees	3 (2.4)	19 (5.3)	- (-)	83 (66.9)	19 15.3	2.95	0.64
Work place availability	2 (1.6)	42 (33.9)	- (-)	74 (59.7)	6 (4.8)	2.68	0.59
Counselling service	18 (14.5)	33 (26.6)	- (-)	65 (52.4)	8 (6.5)	2.51	0.82
Preparation	1 (0.8)	28 (22.6)	- (-)	83 (66.9)	12 (9.7)	2.85	0.58
Occupational passion	- (-)	13 (10.5)	- (-)	94 (75.8)	17 (13.7)	3.03	0.49
Work place ethics	1 (0.8)	12 (9.7)	- (-)	101 (81.5)	10 (8.1)	2.97	0.46
Occupational knowledge	1 (0.8)	10 (8.1)	- (-)	99 (79.8)	14 (11.3)	3.02	0.48
Occupational skill	2 (1.6)	29 (23.4)	5 (4.0)	77 (62.1)	11 (8.9)	2.86	0.76
Grand mean						2.86	

Note:1. IA = Inadequate; 2. SAD = Somewhat adequate; 3. CD = Can't decide. 4. AD = Adequate; 5. MA = More than adequate

Overall, the weighted mean for decision-making is 2.86. If the mean is greater than 2.86, it indicates a high perception, while a mean lower than 2.86 suggests a low perception. This data provided valuable insights into the perception of graduates from Holeta Polytechnic College on trainers' commitment across various aspects.

4.7 Employers Opinion and Satisfaction

4.7.1. Graduates Knowledge and Skill Competencies

Table 15 provides a detailed breakdown of employers' perceptions concerning the skills and capabilities exhibited by graduates from Holeta Polytechnic College, presenting a nuanced understanding across various dimensions. Each item in the table represents a distinct skill or capability, evaluated based on responses from a sample of 10 employers. Employers' perceptions are stratified into five categories: Very Low (VL), Low (L), Average (A), High (H), and Very High (VH), with corresponding percentages reflecting the distribution of perceptions within each category.

Beginning with occupational knowledge and skill, the data showed a robust perception among employers, with a weighted mean (µ) of 3.60, indicating a predominance of High perception (60%) and a significant minority rating it as Average (40%). This suggests a generally positive outlook regarding graduates' proficiency in their respective fields of study.

Conversely, problem-solving capability revealed a more varied perception, with a weighted mean of 3.20, tipping towards a Low perception. This is corroborated by more distribution between Average (50%) and Low (20%) perceptions among employers, indicating potential areas for improvement in critical thinking and problem-solving skills among graduates.

Moving on to communication skill, the data portrayed a predominantly positive perception, with a weighted mean of 3.60, indicating a high perception among employers (50%) and a sizable proportion rating it as Average (40%). This underscores the importance of effective communication abilities in the workplace, which are evidently valued by employers.

Similarly, learning new skills and adaptability reflected a favorable perception, with a weighted mean of 3.40, predominantly leaning towards High perception as 60% rated it Average and a minority rating it as High (40%). This highlights the adaptability and willingness of graduates to acquire new skills, which are crucial in today's rapidly evolving job market.

Table 15: Employers' perception with the skills and capability of Holeta Polytechnic College graduates

Items	VL (%)	L (%)	A (%)	H (%)	VH (%)	Employers (N =10) μ	σ
Occupational knowledge and skill	- (-)	- (-)	4 (40.0)	6 (60.0)	- (-)	3.60	0.52
Problem solving capability	- (-)	2 (20.0)	5 (50.0)	2 (20.0)	1 (10.0)	3.20	0.92
Communication skill	- (-)	- (-)	5 (50.0)	4 (40.0)	1 (10.0)	3.60	0.70
Planning and programing capability	- (-)	2 (20.0)	5 (50.0)	2 (20.0)	1 (10.0)	3.20	0.92
Information technology	- (-)	4 (40.0)	4 (40.0)	1 (10.0)	1 (10.0)	2.90	0.99
Learning new skills and adaptability	- (-)	- (-)	6 (60.0)	4 (40.0)	- (-)	3.40	0.52
Organizing and leadership capability	- (-)	3 (30.0)	4 (40.0)	3 (30.0)	- (-)	3.00	0.82
Decision making skill	- (-)	3 (30.0)	3 (30.0)	3 (30.0)	1 (10.0)	3.20	1.03
Time management skill	- (-)	1 (10.0)	8 (80.0)	1 (10.0)	- (-)	3.00	0.47
Ability to work independently	- (-)	1 (10.0)	6 (60.0)	2 (20.0)	1 (10.0)	3.30	0.82
Negotiating skill	- (-)	- (-)	8 (80.0)	1 (10.0)	1 (10.0)	3.30	0.67
Grand mean						3.25	

Note:1. VL = Very low;2. L = Low; 3. A = Average; 4. H = High; 5. VH = Very high.

However, certain areas, such as planning and programming capability, information technology, and organizing and leadership capability, exhibited a lower perception among employers, with weighted means of 3.20, 2.90, and 3.00, respectively, indicating a tilt towards Low perception. These findings underscore potential areas for curriculum

enhancement or additional training to better equip graduates with the requisite skills demanded by employers.

In conclusion, the comprehensive analysis provided by the table offers valuable insights into the perceived strengths and weaknesses of graduates from Holeta Polytechnic College, facilitating targeted interventions aimed at enhancing their employability and professional competencies in alignment with industry expectations and demands.

4.7.2. Graduates Behavioral Competences

Employers' perception about behavioral competencies of Holeta Polytechnic College graduates is presented in Table 16. The study revealed that graduates' self-confidence is perceived with varying degrees by employers. With 50% of employers perceiving, it at a low level (L) and 20% at a very low level (VL), it indicates a significant portion of employers holding reservations regarding graduates' self-assurance. This might raise concerns about graduates' assertiveness in professional settings, potentially impacting their ability to lead, communicate effectively, or take initiative. The weighted mean of 3.20 reinforces this, indicating an overall low perception. Holeta Polytechnic College might seek improvements in confidence-building activities or soft skills training to address this perception gap.

In contrast, the study revealed that the perception of graduates' work ethics appears notably positive. A significant percent of employers (40%) perceives it at a high level (H) and 10% very high level, indicating confidence in graduates' dedication, reliability, and integrity in the workplace. An additional 50% perceiving it at an average level (A) still signifies a respectable standard. The weighted mean of 3.60 solidifies this perception of high work ethics among graduates. This positive perception could be attributed to rigorous training standards, ethical training and education, or practical experiences provided by the Holeta Polytechnic college.

Similar to work ethics, the study disclosed that the perception of graduates' professional passion is predominantly favorable. A substantial percent of employers (40%) perceives it at an average (A), indicating enthusiasm, commitment, and drive among graduates towards their chosen field. Another 40% perceive it at a high level (H) and 10% at very

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high suggesting a consistent interest by the employer. The weighted mean of 3.50 aligns with this, portraying an overall high perception. This positive outlook could enhance graduates' employability, as passionate employees are often seen as valuable assets in any organization.

Table 16: Employers' perception of behavior of Holeta Polytechnic College graduates

Items	VL (%)	L (%)	A (%)	H (%)	VH (%)	Employers (N = 10)	
						μ	σ
Self confidence	2 (20.0)	5 (50.0)	2 (20.0)	1 (10.0)	- (-)	3.20	0.92
Work Ethics	- (-)	- (-)	5 (50.0)	4 (40.0)	1 (10.0)	3.60	0.70
Professional passion	- (-)	1 (10.0)	4 (40.0)	4 (40.0)	1 (10.0)	3.50	0.85
Creative thinking	- (-)	3 (30.0)	4 (40.0)	3 (30.0)	- (-)	3.00	0.82
Strategic thinking	- (-)	4 (40.0)	3 (30.0)	2 (20.0)	1 10.0	3.00	1.05
Ability to work independently	- (-)	1 (10.0)	6 (60.0)	2 (20.0)	1 (10.0)	3.30	0.82
Grand mean						3.25	

Note:1. VL = Very low;2. L = Low;3. A = Average; 4. H = High; 5. VH = Very high.

According to the study, the perception of graduates' creative thinking appeared more varied among employers. While 40% perceive it a low level (L), indicating low level of innovation and problem-solving skills, 30% perceive it at average (A) levels, 20% at high (H) level and only 10% at very high (H) level reflecting a wider range of opinions. Creative thinking, unfortunately, is perceived as low by employers. The weighted mean for this attribute is 3.00, suggesting that there is room for improvement in fostering creativity among graduates. Encouraging innovative thinking during training at the college can lead to better problem-solving and fresh ideas within the workplace.

Furthermore, the study revealed that, employers' perception of graduates' strategic thinking leans towards the lower end of the spectrum. With 40% perceiving it at a low level (L) and 30% at an average level (A), it indicates concerns regarding graduates' ability to analyze situations, make informed decisions, and plan effectively. The weighted mean of 3.00 solidifies this perception of a generally lower level of strategic thinking. Addressing this perception gap could involve incorporating strategic planning modules or case studies into the curriculum to better equip graduates with essential decision-making skills.

Lastly, the perception of graduates' ability to work independently is mostly positive, albeit with room for improvement. A significant 60% of employers perceive it at an average level (A), 20% at high (H) level and 10% at very high (VH) level indicating confidence in graduates' capacity to handle situations independently. However, 10% perceive it at a low level (L), suggesting some doubts or areas needing development. The weighted mean of 3.30 aligns with this, indicating an overall positive average perception.

In conclusion, while Holeta Polytechnic College graduates are perceived positively in areas like work ethics and professional passion, there are areas such as self-confidence and strategic thinking where perceptions are less favorable. Addressing these perception gaps through tailored interventions in curriculum design, soft skills training, and practical experiences could enhance graduates' overall employability and ensure they meet industry expectations effectively.

As stated by one of the key informant respondent from employer organization:

…. the need by the labour market / as of our community/ is business and services but the training delivered by our college is mostly on agriculture, this may be one reason for the employability of our graduates. According to this respondent perception diversifying program can solve the problem of employability ….. others complained that the vacancies that invite level graduates is rare and while analyzing the functional job on the field, the supervisors explained that most of our work can be handled by non-professionals after providing them short term trainings on their own farm to reduce costs of production and improve profitability.

Here, the FGD panelists on the issue of TVET Industry linkage quote the following;

... the roll of cooperative training is to facilitate training provision and strengthen the TVET industry linkage. However, the implementation of cooperative training is seen not effective so far. The act is rather seems "field trip". Although cooperative training is implemented with the best tie with the existing industry, respondents equivocally assert that cooperative training engaged up to now were purely theory based. It did not incorporate practical activities. The other problem is industry is not willing to open their door for cooperative training. There is reluctance even to sign memorandum of understanding MoU. According to respondents, to implement effective cooperative training, institutional leaders should enthusiastically work with the industry owners to make the provision of cooperative training meaningful. To fit this, awareness creation should get emphasis. Mapping cooperative training site is mandatory. However, industries participate in cooperative training on the basis of their will. There is no law base to obligate industry to open their door to participate in cooperative training. In one or another way the problem we face everywhere hide in the effectiveness of our implementation level

4.8. Companies' involvement in training delivery of HPC

Table 17 presents data on the level of involvement of companies in various aspects of training delivery at Holeta Polytechnic College, with responses categorized into different levels: Not at all (NA), To a little extent (TLX), To some extent (TSE), and To a high extent (THE).

Regarding the extent of the company's involvement in delivering training programs directly to trainees at Holeta Polytechnic College, the study showed that distribution of responses across different levels of involvement, with 30% indicating "Not at all (NA)," 20% indicating "To a little extent (TLX)," 10% indicating "To some extent (TSE)," and 40% indicating "To a high extent (THE)." The mean (μ) of 2.60 signifies an overall perception of high involvement, with the majority of employers perceiving their company's engagement positively. This sentiment is further corroborated by the weighted

mean, which exceeds the weighted mean of 2.33, reinforcing the notion of a high perception of involvement among companies in training delivery for trainees.

The companies' involvement in the training of Technical and Vocational Education and Training (TVET) instructors within their own premises revealed a mixed perception, with 50% indicating "NA (Not at all)," 20% indicating "To some extent (TSE)," and 30% indicating "To a high extent (THE)." The mean (μ) of 2.10 falls below the weighted mean of 2.33, indicating an overall perception of low involvement among the companies. This sentiment is further underscored by the weighted mean, suggesting a collective perception of limited engagement by companies in TVET instructor training.

Table 17: Perception of companies' involvement in training delivery at Holeta Polytechnic College

Items	NA (%)	TLX (%)	TSE (%)	THE (%)	Employers (N = 10)	
					μ	σ
In training delivery for trainees	3 (30.0)	2 (20.0)	1 (10.0)	4 (40.0)	2.60	1.35
In TVET instructors training in your enterprise/company	5 (50.0)	- (-)	2 (20.0)	3 (30.0)	2.10	1.37
In occupational standard development	5 (50.0)	2 (20.0)	2 (20.0)	1 (10.0)	2.40	1.58
In designing curriculum	6 (60.0)	1 (10.0)	2 (20.0)	1 (10.0)	1.80	1.14
In occupational competence assessment	2 (20.0)	2 (20.0)	1 (10.0)	4 (40.0)	3.00	1.41
In conducting need assessment	3 (30.0)	2 (20.0)	1 (10.0)	4 (40.0)	2.60	1.35
In vocational counselling	3 (30.0)	6 (60.0)	1 (10.0)	- (-)	1.80	0.63
Grand mean					2.33	

Note: NA = Not at all; TLX = To a little extent; TSE = To some extent; THE = To a high extent.

As far as the companies' participation in the development of occupational standards is concerned, a varied perception, with 50% indicating "NA (Not at all)," 20% indicating

"To some extent (TSE)," and 10% indicating "To a high extent (THE)" was revealed. Despite the diverse responses, the mean (μ) of 2.40 suggests a moderate perception of involvement among employers. However, the mean exceeds the weighted mean of 2.33, indicating a high perception of involvement in occupational standard development, primarily driven by the significant proportion of companies perceiving their engagement positively.

The involvement companies in designing curricula for training programs at Holeta Polytechnic College portrayed to be a mixed perception, with 60% indicating "NA (Not at all)," 10% indicating "To a little extent (TLX)," 20% indicating "To some extent (TSE)," and 10% indicating "To a high extent (THE)." The mean (μ) of 1.80 suggests an overall perception of low involvement among companies, which is further corroborated by the mean falling below the weighted mean of 2.33, indicating a collective perception of limited engagement in curriculum design.

The involvement in assessing the occupational competence of trainees of HPC by companies exhibited a mixed perception, with 20% indicating "NA (Not at all)," 20% indicating "To a little extent (TLX)," 10% indicating "To some extent (TSE)," and 40% indicating "To a high extent (THE)." The mean (μ) of 3.00 signifies an overall perception of high involvement among employers, which is further reinforced by the mean exceeding the weighted mean of 2.33, indicating a strong collective perception of engagement in occupational competence assessment.

Companies' involvement in conducting needs assessments to identify skill gaps and training requirements showed a mixed perception, with 30% indicating "NA (Not at all)," 20% indicating "To a little extent (TLX)," 10% indicating "To some extent (TSE)," and 40% indicating "To a high extent (THE)." The mean (μ) of 2.60 suggests an overall perception of high involvement among employers, which is further validated by the mean surpassing the weighted mean of 2.33, indicating a collective perception of robust engagement in conducting needs assessments.

Lastly, the involvement of companies in providing vocational counseling to students depicted a mixed perception, with 30% indicating "NA (Not at all)," 60% indicating "To a little extent (TLX)," and 10% indicating "To some extent (TSE)." The mean (μ) of 1.80

suggests an overall perception of low involvement among the companies, which is further supported by the mean falling below the weighted mean of 2.33, indicating a collective perception of limited engagement in vocational counseling.

In general, the study revealed a comprehensive understanding of employers' perceptions regarding their company's involvement in various aspects of training delivery at Holeta Polytechnic College, enabling stakeholders to identify areas of strength, weakness, and opportunities for enhancement in industry-TVET collaboration.

CHAPTER FIVE: SUMMERY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. Summary of Findings

Summary of the major findings are presented below:

I.   The College did not maintain comprehensive databases for its graduates. In cases where data existed, it was not up to date.

II.   Among the 124 respondents (84 males, 40 females), the employment rate was 80.6%, with an unemployment rate of 19.4%. Most participants held full-time positions, with 70% employed in governmental institutions and 22% in private enterprises. The primary reasons for unemployment included a scarcity of enterprises demanding graduates, widespread nepotism and corruption in the selection and recruitment processes, lack of starting capital, workplace, and market information, and reluctance among graduates to engage in self-employment.

III. Animal Health was the most employable occupation (62.2%) among level graduates, followed by HNS (52.9%) and FPO (42.9%) among the 2015 E.C. graduates. The employment rate for male graduates was significantly higher than for female graduates, at 91.4% compared to 56.4%, respectively.

IV.   Employment income for HPC graduates varied significantly. A large proportion, 40 graduates (91%), earned more than 6000 birr per month. This was followed by 16 graduates (67%) earning between 2501 – 4000 birr per month, 9 graduates (56%) earning between 4001 – 6000 birr per month, and 5 graduates (56%) earning between 1501 – 2500 birr per month. Only 2 graduates (29%) earned less than 1500 birr per month. More than half of the graduates, 34 respondents (72%), were satisfied with their income, even though employability remained a significant issue for those who secured jobs earlier.

V.   Focus group discussions revealed low concern and commitment among participants, and the overall institutional resource utilization capacity was very poor.

VI.   Although quantitative data suggested that trainers possessed above-average competence and commitment, feedback from graduates about their current work performance was below average, contradicting the earlier assessment.

VII. Both quantitative and qualitative data indicated that the College suffered from a scarcity of training resources and facilities, including workshops, workshop furniture maintenance services, computers, and internet access. Machinery, hand tools and equipment, consumable materials, water supply, reading materials, and modules were at an average level but were often inadequate and outdated for preparing graduates to meet market technology standards.

VIII. The involvement of companies and industries in training delivery at the College was found to be very poor, which did not align with the national TVET strategy.

IX. The survey indicated that employer satisfaction with the knowledge, skills, and attitudes (competence) of employed graduates was good.

5.2. Conclusion

The study conducted on the career pathways and employability of graduates from Holeta Polytechnic College revealed a diverse range of outcomes based on the graduates' level of training, occupation, and gender. The analysis of employment rates among graduates reveals gender disparities, with males at 91.8% and females at 56.4%, resulting in an overall rate of 80.6%. Both genders achieved 100% employment in most occupations, but males secured jobs faster. Job search methods included noticeboards and personal relationships, with media ads being the least used. The Holeta Polytechnic College training program received positive feedback, with most graduates finding full-time employment in government sectors and agriculture.

Graduates faced job search challenges like profession demand mismatch and low salaries. The training conditions at HPC were generally positive, with areas needing improvement in counseling and career guidance services. Instructors were perceived as skilled, but there was a deficiency in project formulation capabilities. Employers praised graduates' knowledge and communication skills but noted areas like problem-solving and planning needing improvement. Enhancements in self-confidence and strategic thinking were deemed necessary.

Companies' involvement in training TVET instructors and developing occupational standards at HPC varied. In TVET instructor training, involvement was low, while

occupational standard development had moderate engagement. Curriculum design involvement was low, highlighting the need for enhanced industry-TVET collaboration. Occupational competence assessment and needs assessments had high involvement levels, emphasizing the importance of improved engagement between companies and training programs at HPC.

5.3. Recommendations

Recommendations drawn from the results of the study are summarized and presented as follows:

- The College should prioritize the establishment of a meticulously updated and all-encompassing database accessible to all individuals looking to make use of it.
- Raising public awareness of technical and vocational education and training (TVET) by the HPC, Holeta Town Administration Job Creation Office, and College Board to enhance the linkage between TVET and industry, as well as improving employability.
- Enhancing the relevance and utility of the Labor Market Information System (LMIS) and integrating robust vocational guidance and counseling (VGC) within the college's framework and the Oromia Job Creation and Vocational Bureau.
- Coordinating college trainees to establish savings while attending the training, with the aim of accumulating startup capital for small and medium enterprises upon graduation.
- Encouraging innovation and entrepreneurship within an outcome-focused Technical and Vocational Training (TVT) curriculum by the Ministry of Labour and Skill and the Oromia Job Creation and Vocational Bureau.
- The College should enhance its partnerships with industries and other private enterprises to ensure that trainees are equipped with the essential skills needed for employment upon completion of their studies.
- The college must enhance the practical proficiency of trainers and the allocation and utilization of material resources for education and training

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APPENDICES

Appendix 1 : Interview questionnaire for Graduates of HP C (2023)

I. PERSONAL INFORMATION
1. Sex: 1) Male   (2) Female
2. Age
   a. 20-30   c. 31-40
   b. 41-50   d. >50
3. Marital Status
   a. Married   b Single
   b. Divorced   d. widow
4.   Name of occupation you graduated with_____
5.   Level of qualification you acquired _____
6.   Year of graduation_____
7.   Have you take national assessment (COC) No_____ Yes____
8.   Indicate levels in which you are competent   a. I b. II   c. III   d. IV

II. EMPLOYMENT HISTORY

9.   Are you currently employed? (If no, go to 26)   1) Yes   2) No
10.   If employed, how long did it take you to get your first job? Months_____
11.   If employed, to what extent is your current job **related** to the profession you
     received from HPC?
   1) To a high extent
   2) More or less related
   3) To a low extent
   4) No relation at all
12. If employed, how **helpful** is the training you received from HPC to your current job?
   1) Highly helpful
   2) Somehow helpful
   3) A little helpful
   4) Not helpful at all
13. If employed**,** what type of employment are your current engaged?
   1)   Fulltime employee
   2)   Part-time employee
   3)   Temporarily employed
   4)   Self-employment
14. If employed, where are you employed?
   1)   Government organization
   2)   Private organization
   3)   Nongovernmental organization
   4)   Self-employed
   5)   Other (please specify)_____
15. If employed, are you satisfied with your current job?   1) Yes   2) No
16. For the question 15, if your answer is no, why?_____

17. If employed, how did you get your job?
    1) Media Advertisements (Please Specify)
    2) Watching noticeboards
    3) Through apprenticeship contacts
    4) Through personal relationship (family, friends or any other such networks)
    5) Other (Please specify) _____
18. Monthly income   a) <1500Birr   b)1501- 2500Birr   c)2501- 4000Birr
    d)4001-6000 Birr   e) >6000 Birr
19. In what area of specialization is your job?
    a) Construction trades, craft, trade and industrial
    b) Commercial, clerical business and public administration
    c) Agriculture, forestry and fisheries
    d) Health and health related
    e) ICT
    f) Hospitality and tourism
    g) Other (please specify)_____
20. Is this your first job since graduation?
    a) Yes
    b) No
21. How many employing organizations did you contact before getting your current
    job?_____
22. Are you employed in your area of training/occupation?
    a) Yes
    b) No (go to Q 22)
23. (*If No to question Q22*), why not did you employed in your area of
    training/occupation?
    a) Lack of vacancy in my occupation
    b) better salary
    c) Poor working conditions
    d) For better job satisfaction
    e) Other (please specify)_____
24. Do you regularly work overtime?
    a) Yes
    b) No
25. (If yes to 24), Please specify the average number of overtime hours per week?
    _____
26. If unemployed, how long have you been looking for a job after graduation ?
    _____
27. If unemployed, how do you search for a job (multiple answers possible)?
    1) Watching job vacancies (e.g., internet, newspaper, advertisement boards etc.)
    2) Contacting companies/enterprises directly (speculative application)
    3) By using personal contacts (e.g., parents, relatives, friends)
    4) Using government agency
    5) Other (please specify): _____
28. If unemployed, what do you think is the major bottleneck for you not to get a job on
    your profession (more than one answer is possible)?

1) Your profession is not demanded in the market
2) You can't win in the competition for employment
3) employment requirements gives less opportunity for level graduates
4) Your profession demands a huge investment
5) You dislike self-employment
6) Salaries offered are not attractive
7) Employment opportunities are affected by nepotism and corruption
8) Any other_____

III. SOCIO-DEMOGRAPHIC CHARACTERISTICS

29. What is the educational level attained by your father?
    a) No formal Education
    b) Primary school
    c) Secondary school (including)
    d) TVET graduate
    e) Higher education (Bachelor - First cycle of Higher Education)
30. What is the educational level attained by your mother?
    a) No formal Education
    b) Primary school
    c) Secondary school (including)
    d) TVET graduate
    e) Higher education (Bachelor - First cycle of Higher Education)
31. What is your father's work?
    a) permanent employment
    b) part time / temporary work
    c) self-employed
    d) unemployed
32. What is your mother's work?
    a) permanent employment
    b) part time / temporary work
    c) self-employed
    d) unemployed

Instruction II: Read the following items and provide your response by putting a thick mark ("√") in each box. Please do not leave items unanswered.

IV. TRAINING BACKGROUND

No	Occupational Relevance	Inadequate	Somewhat adequate	Adequate	More than adequate	Can't decide
33	Relevance of you occupation to the job market					
34	The theoretical content of the OS					
35	Fitness to workplace dynamics					

36	Fitness to the local					
37	Counseling and career guidance service					
	Training methods you used to attend in HPC					
38.	Emphasis for trainees' learning needs					
39.	Reliance on trainee record book					
40.	Adherence to work safety					
41.	Continuous competence assessment					
42.	Feedback delivery					
43.	Practice of competency-based training					
44.	Industrial attachment					
45.	Workshop and material utilization					
46.	Attention for practical exercise					
47.	Attention for theoretical concepts					
	Facilities and resources supplied during training at HPC					
48.	Workshops					
49.	Hand tools and equipment					
50.	Machinery					
51.	Consumable materials					
52.	Workshop furniture					
53.	Maintenance service					
54.	Power supply					
55.	Computers					
56.	Internet access					
57.	Water supply					
58.	Reading materials					
59.	Modules and teaching materials					
	Trainer competence					
60.	Subject matter knowledge					
61.	Practical skills					
62.	project formulating competence					
63.	Competence assessment practice					
64.	communication skills					
65.	Determination to trainee					

	competence					
Trainer commitment						
66.	Trainee motivation					
67.	Classrooms management capability					
68.	Respect for trainees					
69.	Work place availability					
70.	Counselling service					
71.	Preparation					
72.	Occupational passion					
73.	Work place ethics					
74.	Occupational knowledge					
75.	Occupational skill					

What is your opinion regarding the following statements of the adequacy of vocational training, graduates' employability and their ability to perform their jobs? Strongly disagree; Disagree; Not applicable; Agree; strongly agree

Statements		Strongly disagree	Disagree	Not applicable	Agree	Strongly agree
76	My training adequately prepared me for work					
77	My employer is satisfied with my level of knowledge and					
78	It is easy for me to get a job					
79	I can easily be trained to improve my level of skill					
80	I find myself to be very effective in my Current job					
81	I can easily change employers within my area of specialization					

To learn more about your current work, please tell us to what extent the following statements reflect your situation?

	Statement	Not at all	To a little extent	To some extent	To average extent	To a great extent
82	I always receive instruction in work task before I start the work.					
83	I have a supervisor / co-worker, who control my work.					
84	I receive continuous feedback about my performance at the workplace.					

85	My regular work tasks focus on routine activities					
86	I plan, carry out and oversee my work tasks independently.					
87	My work tasks encompass a wide variety of activities.					
88	My work is related to the profession I was trained in.					
89	Considering all aspects of your current work situation (position, income, work tasks etc.) how satisfied are you with your current work situation?					

Thank you for your participation!

Appendix 2 : Interview questionnaire for Employer organizations

I. Background Information

1. Sex of respondent: 1) Male   2) Female
2. Name of enterprise/company

   _____
3. Location of enterprise/company:
      Zone_____Woreda_____City/Town_____
4. Position (responsibility) held by the participant in the
   organization_____
5. Work experience in the company/enterprise_____
6. Type of enterprise/company: 1)Government   2) Private   3) NGO
7. Area of operation of the company/enterprise_____

II. Graduates' Competences and Performances

Instruction II: Please, indicate your response for scales in the following two consecutive tables by putting a thick mark ("√") in each box.

No	How much is the competence of HPC graduates employed in your enterprise?	Very low	Low	Average	High	Vey Highly
8	Occupational knowledge					
9	Occupational skill					
10	Entrepreneurial skill					
11	Problem solving capability					
12	Team spirit					
13	Communication skill					
14	Planning and programing capability					
15	Information technology					
16	Critical thinking					
17	Learning new skills and adaptability					
18	Organizing and leadership capability					
19	Decision making skill					
20	Self confidence					
21	Work Ethics					
22	Professional passion					
23	Project management skill					
24	Time management skill					
25	Endurance					
26	Creative thinking					
27	Strategic thinking					
28	Ability to work independently					
29	Negotiating skill					

30	Ability to work under pressure					
31	Risk taking and risk analysis skill					

To what extent does your company/enterprise involve in TVET delivery? Reply by putting a thick mark ("√") in each box.

No	Type of cooperation	No at all	To a little extent	To some extent	To a high extent
32	In training delivery for trainees				
33	In TVET instructors training in your enterprise/company				
34	In occupational standard development				
35	In designing curriculum				
36	In occupational competence assessment				
37	In conducting need assessment				
38	In vocational counselling				

Instruction III: Please, indicate your response either by encircling the choice of your answer or by writing the response in a short phrase in the blank spaces for the following items.

39. Which one of the following means do you use to recruit employees among TVET graduates most of the time?
    1) Media Advertisements
    2) Individual recommendation
    3) Recruitment Agencies
    4) Family contact
    5) Apprenticeship performance
    6) Other (please specify) _____
40. How much is your satisfaction with the performance of employees graduated from HPC
    1) Very high
    2) High
    3) Moderate
    4) Low
    5) Very low
41. Are there skill gaps among your employees graduated from HPC? 1) Yes   2) No
42. How often do you have to send your vocationally trained employees for further training to improve their skill level?
    a) Always
    b) Often
    c) Sometimes
    d) Never
    43. Do you employ graduates of TVETs other than HPC?
    a) Yes
    b) No

44. (**If yes to question 43**), how does their level of competency compare with those trained in other colleges?
      a) Excellent
      b) Very good
      c) Good
      d) Average
      e) Below average

45. Please, indicate the major **limitations** of graduates of HPC in terms of their fitness for workplace requirements you want if your answer for Q43 is yes:
      a. _____
      b. _____
      c. _____
      d. _____

46. What are the priority occupational areas and their levels of qualifications you require from TVET in the coming three years?
      a. _____
      b. _____
      c. _____
      d. _____

47. What are the most wanted occupations and their levels of qualifications in the labor market today and in the future in view of the anticipated development goals of your enterprise/company?
      a. _____
      b. _____
      c. _____
      d. _____

Thank you for your participation!

Appendix 3: Interview questionnaire for College management staff and instructors
<u>Interview Questions</u>

1. On what grounds do you admit trainees in your college (labor market need, government strategic plans)? How or on what basis do you place trainees into different occupations

2. On what grounds do you open occupations to provide training? How much do you take institutional capacity (e. g. trainer qualification and material supply) into consideration? Do you admit graduates in occupations where there is scarcity of training facilities? Why?

3. 3 How much is the utility of cooperative training in your context? Please explain both its weaknesses and strengths.

4. What if the market is saturated before you supply graduates for the market you assessed, found out the gaps and already admitted trainees?

5. Is there a problem of employment opportunity among your graduates? Why?

6. What do you think are the reasons behind the unemployment? Which occupations and levels of qualification are often subjected to unemployment problem (expound it exhaustively)?

7. If you conduct a tracer study, how do you evaluate the utility of your tracer study?

Thank you for your participation!

Appendix 4: Profile of employer organization involved in the study

S/N	Employer organization/enterprise	Location of the org/enterprise.	Type of enterprise	Area of operation	Person filled the questioner	Remark
1	Holeta Animal Development Center	Holata	Government	Dairy genetic improvement	Process owner	
2	Larca plc	Walmera	NGO	Horticulture	Supervisor	
3	Walmara Wereda Agr'l Office	Holeta	Government	Agriculture	Process owner	
4	Water supply service	Kolobo	Government	Water supply	Process owner	
5	Kenbone vet clinic	Ammayya/wanci	Private	Veterinary services	Owner	
6	Amen vet. service	Wacalee	Private	Veterinary services	Owner	
7	Walmera District Vet. Clinic	Holeta	Government	Veterinary services	Process owner	
8	Garad Metals Engeneering **plc**	Holeta	Government	Manufacturing	manager	
9	Bako PTC	Bako	Government	Training	AVD	
10	Ejere vet. Drug service	Ejere	Private	Veterinary services	Owner	