GHANA TVET SERVICE

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SKILLS
SUPPLY AND DEMAND SIDE ASSESSMENT

A SITUATION ANALYSIS OF THE ASHANTI REGION

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A study undertaken by Step Innovations Africa on behalf of the United Nations Children's Fund (UNICEF) Ghana

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Acronyms

1D1F	One District One Factory
4IR	Fourth Industrial Revolution
AGI	Association of Ghana Industries
AU	African Union
CBT	Competency-Based Training
CTVET	Commission for Technical and Vocational Education and Training
COVID-19	Coronavirus Disease 2019
EV	Electric Vehicles
FCUBE	Free Compulsory Universal Basic Education
FGD	Focus Group Discussions
GHS	Ghana Cedi
GDP	Gross Domestic Product
GSS	Ghana Statistical Services
KII	Key Informant Interview
IAT	Informal Apprenticeship Training
ICT	Information Communication Technology
IT	Information Technology

KII	Key Informant Interviews
LMIS	Labour Market Information System
MCPs	Master Craft Persons
MMDA	Metropolitan, Municipal and District Assembly
MSME	Micro, Small and Medium Enterprises
NDPC	National Development Planning Commission
NTVETQF	National TVET Qualifications Framework
PPP	Public Private Partnership
PWDs	Person with Disabilities
RPL	Recognition of Prior Learning
SDG	Sustainable Development Goal
SHS	Senior High School
TI	TVET Institutes
TLM	Teaching and Learning Materials
TVET	Technical and Vocational Education and Training
UNICEF	United Nations Children's Fund
WEL	Workplace Experience Learning

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Executive Summary

Ghana has witnessed steady economic growth over the past two decades, with Vision 2057 setting ambitious goals for national prosperity. However, despite these gains, the labour market faces persistent challenges, including high informal employment, skills mismatches, and limited opportunities for youth and women. Addressing these issues, the United Nations Children's Fund (UNICEF) commissioned Step Innovations Africa Limited to conduct a comprehensive study in the Ashanti Region, a key economic hub in Ghana. This study aimed to assess the supply and demand for Technical and Vocational Education and Training (TVET) and analyse the existing relationship between training and the market, with a focus on identifying skills gaps and mismatches.

Building upon Ghana's 2018/2019 Commission for Technical and Vocational Education and Training (CTVET) Skills Gap Analysis, the study focuses on the Ashanti Region for gathering region-specific data. It also identifies areas of skills provision, demand, gaps and mismatches, offering vital insights for future interventions. The study utilized a mixed-method approach, engaging various stakeholders from public, private and informal sectors, skills development organizations, policymakers, training providers, past and current learners and parents. This methodology followed the International Labour Organisation's (ILO) Skills for Trade and Economic Diversification (STED) framework, aligning TVET offerings with trade and economic sectors. The research methods employed include literature reviews, field surveys, Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) across the 43 Metropolitan, Municipal and District Assemblies (MMDAs) in the Ashanti Region.

The Ashanti Region, Ghana's third-largest administrative region, is a dynamic economic hub driven by agriculture, industry and services, both in formal and informal sectors. The region has 57 public and private TVET institutions offering training in 43 different occupational trades. Suame Magazine, one of Africa's largest informal sector hubs, is located here and is renowned for its specialized workshops in metal engineering and vehicle repairs, employing an estimated 200,000 workers. A diverse range of industries also operate across various sectors and sub-sectors in the region.

This study highlights the substantial reforms that have occurred in the TVET sector, reflecting the government's commitment to fostering sector development and positioning it for both local and global competitiveness. Notably, the establishment of Commission for Technical and Vocational Education and Training (CTVET) has created a robust governance framework to regulate TVET provision, ensuring that quality standards are upheld across public, private and informal sectors. The Ghana TVET Service (GTVET) was also established to address sector fragmentation and ensure effective delivery at the pre-tertiary level. The introduction of the Free TVET Policy has increased enrolment in Ashanti's public Technical Institutes (TIs), with a 61% increase in enrolment from the 2020/2021 to the 2023/2024 academic year.

Key Findings

Supply Side Dynamics

- **Presence of TVET Institutions:** 16 out of 43 districts in the region lack formal TVET Institutes (TIs), limiting access to training.
- **Trade Offerings:** The study reveals that 43 different trades are offered across public and private TVET Institutes (TIs), with the four most common being fashion design technology, electrical engineering, catering and hospitality management and building and construction. Despite the region's agrarian nature, agriculture mechanisation training is only offered by one institution. Tertiary-level training opportunities exist in the agriculture sector; however, agriculture remains significantly underrepresented within the TVET system. Similarly, emerging skills in green technologies and digital competencies are notably lacking in current TVET offerings.
- **Delivery Methodology:** Although Competency-Based Training (CBT) is the nationally approved approach for TVET, only 24% of TIs use CBT exclusively. The majority (69%) adopt a blended approach, combining CBT and traditional curricula. Although Workplace Experience Learning (WEL) is not originally designed as part of the traditional delivery model, many TIs have incorporated it into a blended approach. The findings suggested that WEL is widely implemented across 91% of TIs.

- **Accreditation:** Of the 43 trades offered, only 19 have been accredited for CBT. Notably, 73% of private TIs are accredited, while only 49% of public TIs have received accreditation. Most institutions lack proper labs and equipment for hands-on training. The high cost of accreditation and inadequate infrastructure are cited as barriers to wider CBT compliance.
- **Teacher Quality:** While 49% of principals and facilitators hold Master's degrees and 30% hold Bachelor's degrees, there remains a significant shortage of specialist teachers in certain trades, presenting a challenge to maintaining high training standards.
- **Gender Issues:** In the Ashanti region, TVET participation remains predominantly male, with 67% male enrolment compared to 33% female enrolment. This gender disparity extends to staffing, with 61% of teaching staff being male. This reflects the broader societal perception that TVET is a male-dominated field, reflecting broader gender imbalances in technical and vocational fields.
- **Employment Outcomes:** Of the past TVET graduates surveyed, 55% are employed, 18% are furthering their education and 27% are unemployed. Of the employed, 39% are self-employed, emphasizing the need for entrepreneurship development in TVET.
- **Perception of TVET:** TVET has historically suffered from negative perceptions, but the study found an improvement. 78% of parents/guardians now encourage their wards to pursue TVET and 91% of TVET graduates are willing to promote the sector to others.
- **Informal Sector:** The informal sector, especially apprenticeships, plays a significant role in skills development. Contrary to the perception that informal trainers (Master Craft Persons, MCPs) are undereducated, 31% of MCPs hold tertiary qualifications and 31% hold secondary qualifications. However, there is a lack of standardized curricula in informal training.
- **Funding Issues:** TVET funding has received support from development partners and donors; however, delays in fund disbursement, combined with rising government expenditure resulting from the Free TVET Policy, have placed considerable strain on the sector's ability to maintain and deliver quality training. With the introduction of the free TVET policy, TVET delivery costs doubled, though income for training institutions (TIs) remained largely unchanged.

While Competency-Based Training (CBT) offers a more practical and learner-centered approach to skills development, its effective implementation faces significant challenges under current TVET conditions. Given these requirements, it is challenging to meaningfully implement CBT in the current environment of Free TVET and significantly higher pupil-teacher ratios (PTR). The increase in enrolment, without a proportional expansion in trained facilitators and infrastructure, compromises the core principles of CBT - individualized instruction, continuous assessment and hands-on practice - thus limiting its effectiveness under current constraints.

Demand Side Dynamics

- **Employment Contracts and TVET Recruitments:** 55% of employers reported not entering into formal contracts with their employees, indicating potential gaps in labour market regulation and formalisation. Recruitment methods are largely informal, with 40% of employers relying on networking and 38% on social media platforms to source graduates.
- **Industry and Training Linkage:** 76% of enterprises surveyed engage with TVET institutions to co-develop programmes and 95% are open to accepting trainees for WEL. Despite strong industry collaboration, significant gaps remain in graduates' practical skills and professional attitudes, which need to be addressed to enhance employability. Research also revealed that the TVET sector requires review of the curriculum to align with market requirement.
- **ICT Skills Gap:** The demand for ICT professionals, including IT specialists and coding engineers, is unmet by the limited number of TVET institutions offering ICT-related courses. Only 14% of institutions provide Information Technology training and even fewer offer courses in computer hardware and networking. This gap is further exacerbated by the need for more industry certifications and partnerships to bridge the skills divide.
- **Gig-economy:** The expansion of e-commerce and remote work opportunities calls for new training in digital business operations and financial literacy. As the region becomes a hub for online services like Uber and Bolt, there is a growing demand for skilled workers in logistics, e-commerce management and online business operations.
- **Sector-Specific Needs:** In sectors such as agriculture, construction, logistics and tourism, there is a demand for specialized training to meet industry growth. For example, the construction sector needs more trained heavy machinery operators, while the tourism and hospitality sectors require workers with language proficiency and practical skills.

The study delved deeper into skills gaps and mismatches and identified wider gaps within the Agriculture, Information and Communication Technology (ICT) and medium gaps for sectors of Industry and within Services (Hospitality and Tourism and Retail and Wholesale Business).

Based on findings, the study recommends specific actions or interventions proposed for various key stakeholders (TVET Service, UNICEF, Other Development Partners (DPs) and Private-Public Partnerships) involved in improving the TVET system in the Ashanti Region.

Following are the overall recommendations

INFRASTRUCTURE EXPANSION

Establish TVET institutions in districts without formal, accredited TIs, considering the population size and economic needs of these areas. While the Free TVET Policy has expanded access, significant investment is required to upgrade the infrastructure of existing institutions and establish new TVET centres in areas lacking formal institutions.

AGRICULTURE AND EMERGING SECTORS

Introduce agricultural mechanization programs and develop industry-driven curricula to address the local market needs, particularly within the agricultural sector which is central to the region's economy.

SKILLS DEVELOPMENT IN EMERGING TECHNOLOGIES

Validate and expand the inclusion of green skills and digital skills in TVET curricula to meet the growing market demands, particularly in sectors such as ICT, renewable energy and modern manufacturing technologies.

STRENGTHEN CBT IMPLEMENTATION

Ensure comprehensive support for Competency-Based Training (CBT), focusing on enhancing staff capacity, upgrading infrastructure and increasing opportunities for practical, hands-on learning experiences.

ACCREDITATION INCENTIVES

Establish an incentivized system to encourage TVET institutions to pursue full accreditation, thereby enhancing the quality of education and improving the credibility of TVET graduates. CTVET to review the CBT accreditation processes and compliance to enable more TIs to achieve CBT accreditation while ensuring the quality and relevance of training delivery in the TIs.

WORK READINESS AND ENTREPRENEURSHIP PROGRAMMES

With 71% to 90% of graduates from informal apprenticeships starting their own businesses after graduation, it would be advantageous for the informal sector to collaborate with TIs that offer entrepreneurship training programmes and literacy and numeracy instruction as part of the 21st Century skills package essential for business performance. Introduce work readiness programs that focus on leadership, teamwork, professionalism and work ethics to enhance the employability of youth, supporting both wage employment and self-employment ventures.

PUBLIC-PRIVATE PARTNERSHIPS (PPP)

Engage the private sector to finance and support the development of TVET infrastructure, as well as the innovation of curricula to better align with industry needs.

PUBLIC AWARENESS CAMPAIGNS

Intensify public education and sensitization programs to raise awareness about the importance of TVET and its value as a viable career pathway for youth.

NEW CBT COURSES

CTVET has developed and approved several emerging technology trades, including green and digital skills. These can be validated for training in selected TIs in the Ashanti Region, ensuring that TVET institutions remain aligned with market trends.

SKILLS ANTICIPATION AND MARKET FORECASTING

Invest in skills anticipation tools such as Labour Market Information Systems (LMIS), forecasting tools and graduate tracer studies to better understand trends and inform policy and decision-making.

PUBLIC AWARENESS AND SENSITIZATION

Strengthen public education and awareness campaigns to emphasize the importance of TVET and encourage more stakeholders, particularly students and employers, to engage with and support the TVET system.

The study's comprehensive analysis of the supply and demand dynamics in the Ashanti Region emphasizes the need for infrastructure development, gender inclusivity and curriculum updates. By addressing these challenges through strategic investments, policy reforms and strengthened collaborations among TVET institutions, industry stakeholders, and government agencies, the region's workforce will be better prepared to meet the demands of an evolving labour market.

1 INTRODUCTION

1.1. COUNTRY AT A GLANCE

Ghana, a lower-middle-income[1] country in West Africa, has experienced steady economic growth over the past two decades, driven by structural transformation, improved macroeconomic policies, and investments in key sectors. As one of the region's most stable democracies, Ghana has made significant strides in poverty reduction, education, and health outcomes.

In May 2024, the Government of Ghana launched Vision 2057, a long-term roadmap aimed at national development by the country's centenary year. Vision 2057 aims to build a "free, just, prosperous, and self-reliant nation,"[2] aligned with the UN's Sustainable Development Goals (SDGs) and the African Union's (AU) Agenda 2063. The plan, developed by the National Development Planning Commission (NDPC), builds on previous strategies, such as the "Black Star Rising" long-term plan, incorporating lessons from global challenges like COVID-19 and climate change.

[1] World Bank. (n.d.). World Bank country and lending groups. World Bank Group. Retrieved March 21, 2025, from https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups
[2] National Development Planning Commission (NDPC). (2024). Vision 2057 - Long-term national development perspective framework. Accra. https://www.ndpc.gov.gh/media/Long-Term_National_Development_Perspective_Framework_Vision_2057.pdf (accessed March 2025)

Image 1 | *Map of Ghana*
(Source: Encyclopedia Britannica, Inc.)

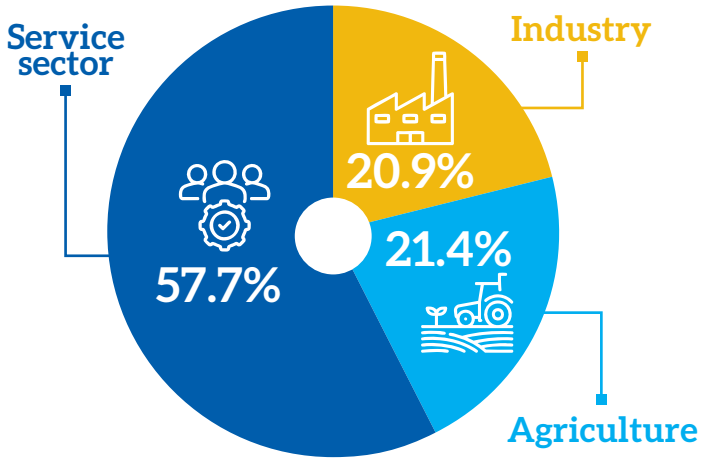
A key driver of Ghana's Vision 2057 is unlocking the potential of its youthful population. With a young population, abundant natural resources, and sustained political stability, Ghana is well-positioned to achieve this goal. The country's population is projected to grow from 34.88 million in 2025[3] to 57.28 million by 2057, with urbanisation expected to reach 80%, driving regional development.[4] However, the labour market faces persistent structural challenges, including high informal employment, skills mismatches, and limited job opportunities for young people and women.

Unemployment in Ghana is primarily an urban issue,[5] with youth unemployment significantly higher than the national average. In 2023, the national unemployment rate was around 14.9%, while the youth unemployment rate stood at 29.7%. Migration from rural areas and high unemployment among women further exacerbate these challenges, with 36.6% of the unemployed being between the ages of 20-24.[6] The labour force participation rate was 72.9% in 2023, leaving about 5 million people outside the workforce.[7]

Ghana's economy is primarily driven by agriculture, industry, and services, with recent growth in services and industry. In 2023, the real Gross Domestic Product (GDP) growth rate was 2.9%, exceeding the expected 1.5%, but falling short of the 7% target set in the Agenda for Jobs II. Agriculture still plays a significant role in employment, particularly in rural areas, while services, led by financial services, telecommunications, and trade, are the largest contributors to GDP. Despite progress, challenges such as inefficiencies in the labour market, low productivity, and inclusive growth remain.

[3] Worldometer. (n.d.). Ghana population (live). Retrieved March 21, 2025, from https://www.worldometers.info/world-population/ghana-population/
[4] National Development Planning Commission (NDPC). (2024). Vision 2057 - Long-term national development perspective framework. Accra. https://www.ndpc.gov.gh/media/Long-Term_National_Development_Perspective_Framework_Vision_2057.pdf (accessed March 2025)
[5] GSS (2022) Ghana Annual Household Income and Expenditure Survey
[6] Ghana Statistical Service. (2024, February). Labour statistics bulletin: 2023 Quarter 2. Ghana Statistical Service.
[7] GSS (2023) PHC Analysis

The service sector accounts for 57.7% of employment, followed by agriculture at 21.4% and industry at 20.9%. [8] However, job vacancies in the economy showed a decline, with job adverts in Q1 2024 falling by 4% compared to Q1 2023, indicating slower labour market demand.



The Ghanaian government prioritises sectors for economic transformation through policies like the Ghana Shared Growth and Development Agenda (GSGDA) and the Industrial Transformation Agenda these include:

- **Job Creation:** Agriculture, construction, and manufacturing sector and sub-sectors are key for youth employment.
- **Export Growth:** Mining, cocoa production, and oil & gas are high-priority for boosting exports.
- **Technology and Innovation:** Information Communication Technology (ICT), education, and healthcare sectors are crucial for advancing technology and skills.
- **Industrialization:** Agro-processing, automotive assembly, and textiles are emphasised for local production and reducing imports.

The quality of the labour supply is vital for economic transformation. SDG8, focused on decent work and economic growth, emphasises employment creation, social protection, rights at work, and social dialogue. Addressing skills development, job creation, and youth employment challenges will drive sustainable growth. To meet these challenges, strengthening Technical and Vocational Education and Training (TVET), improving labour market policies, and fostering private sector-led job creation are essential for Ghana's inclusive and sustainable development.

[8] Ghana Statistical Service 2023; Ghana Annual Household Income and Expenditure Survey

1.2. EDUCATION AND TVET IN GHANA

1.2.1. EDUCATION SYSTEM AND POLICY OVERVIEW

Education in Ghana balances national needs with globally relevant skills, recognizing education as a fundamental right enshrined in international frameworks like Sustainable Development Goals 4 (SDG4) focused on education and the African Union's (AU) Agenda 2063. Ghana has continually refined its education policies to enhance accessibility, relevance, and alignment with national development goals. The country follows a 2 + 6 + 3 + 3 + 4 education structure, requiring 15 to 18 years for an individual to progress from preschool to tertiary education.

Key policies such as Free Compulsory Universal Basic Education (FCUBE), Capitation Grant, School Feeding Programme, and free school supplies have expanded access. The Free Senior High School (SHS) policy, introduced in 2017, eliminated financial barriers, increasing enrolment by 33% in its first year. From 2017 to 2024, total Free SHS enrolment reached 3,135,754. However, challenges persist, including infrastructure deficits, declining literacy and numeracy levels, and limited inclusion of persons with disabilities. The double-track system was introduced to manage overcrowding, but concerns about education quality and rising youth unemployment remain.

Table 1: *The Education System in Ghana*

Years	Age	General education path
4 - 1	18+	**TERTIARY EDUCATION** University/Polytechnic/Technical University/Professional Institutes/Teacher Education
3 2 1	17-18 16-17 15-16	**SENIOR HIGH SCHOOL** Specialisation in Grammar Technical/Agricultural/ Vocational/Apprenticeship Programme
3 2 1	14-15 13-14 12-13	**JUNIOR HIGH SCHOOL** General Curriculum for Entry into Grammar, Technical Vocational, Agricultural Courses
6 5 4 3 2 1	11-12 10-11 9-10 8-9 7-8 6-7	**PRIMARY** Basic Literacy, Numeracy, Science and Social Studies
2 1	5-6 4-5	**KINDERGARTEN/ PRE-SCHOOL**

1.2.2. TECHNICAL AND VOCATIONAL TRAINING AND EDUCATION

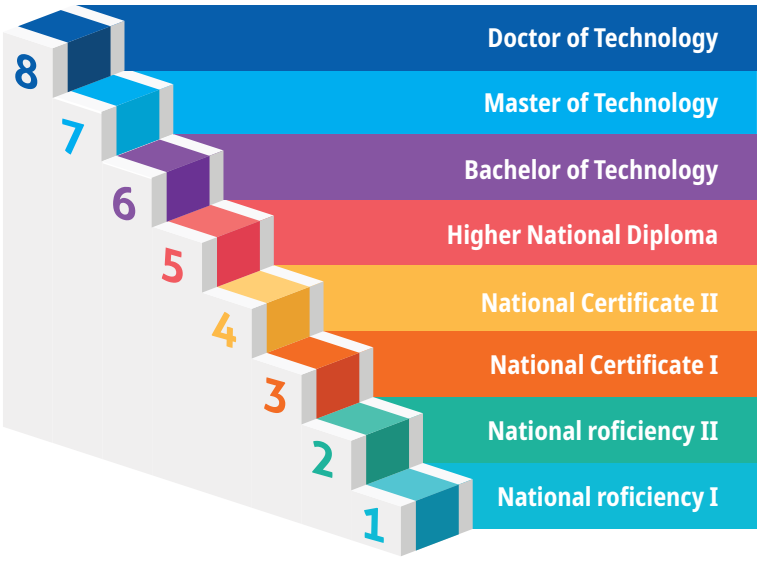
Ghana's 2+6+3+3+4 education system has historically prioritised academic pathways, side-lining TVET. At the dawn of the 21st century, it became evident that education systems needed restructuring to meet the demands of a rapidly evolving labour market. The shift toward a knowledge-driven economy required a highly skilled and adaptable workforce. However, Ghana's education focused on general educational pathways. This imbalance led to persistent challenges, including fragmentation, outdated curricula, low graduate employability, and negative public perception. The 2002 Education Sector Review highlighted these issues, triggering crucial reforms within TVET.

A major milestone was the passage of the COTVET Act 718 in 2006, establishing the Council for Technical and Vocational Education and Training (COTVET) to coordinate and harmonise TVET across public, private, formal, and informal sectors. This policy shift was driven by three key imperatives:

- **Democratic Imperative:** Expanding education and training to meet diverse societal needs.
- **Poverty Reduction Imperative:** Equipping individuals with employable skills to reduce economic disparity.
- **Economic Imperative:** Strengthening workforce competitiveness in a globalised economy (GOG, 2004).

To implement these reforms, Ghana introduced the National TVET Qualifications Framework (NTVETQF), aligning TVET with general education to establish structured career pathways. Managed by the Commission for Technical and Vocational Education and Training (CTVET), the framework standardises examinations and certifications while integrating informal training into the national system.

Image 2 | *Levels of the National TVET Qualifications Framework and Pathways With General Education*



General Education	NTVETQF
Doctorate Degree	Doctor of Technology
Masters Degree Post Graduate Cert. or Diploma	Master of Technology
Bachelor Degree →	Bachelor of Technology
WASSCE →	HND
	National Certificate II
Basic Education Certificate of Education (BECE) →	National Certificate I
Attempted BECE or no formal qualification but can read and write →	National Proficiency II
	National Proficiency I

1.2.3. COMPETENCY-BASED TRAINING (CBT) AND STRUCTURAL TVET REFORMS

Ghana adopted Competency-Based Training (CBT) as the primary methodology for TVET in 2007, piloting it with successful outcomes but till date faces systemic challenges. Competency refers to the knowledge, skills, and attitudes required for task performance. Under this model, instructors act as facilitators, guiding trainees through self-discovery and active participation. The CBT curriculum has a 5-year validity and must be delivered in accredited institutions. Ghana's TVET Report (2023) found that only 50% of schools had between 1 and 10 CBT-trained trainers, and the high rate of technological advancement impedes CBT implementation. Moreover, CBT delivery is five times more expensive than traditional methods.

Box 1: TVET Reforms Policies and Key Activities

The following TVET reforms, policy and key activities have been implemented in recent past for strengthening TVET in Ghana:

- **The Technical University Act (2016):** The Technical University Act 2016 (Act 922) and its amendments in 2018 (Act 974) and 2020 (Act 1016) transformed all ten polytechnics into Technical Universities (TUs), facilitating seamless transitions for TVET graduates into tertiary education. These institutions now offer Bachelor, Master, and Doctor of Technology degrees, forming a consolidated NTVETQF with eight levels.
- **The AAMUSTED Act (2020):** The Akenten-Appiah Menka University of Skills Training and Entrepreneurship Development (AAMUSTED), established by Act 1026, is the only institution authorized to train TVET personnel using CBT methodologies. This is crucial for addressing the backlog of untrained TVET trainers.[9]
- **The Pre-Tertiary Education Act (2020):** Fragmentation across multiple ministries hindered TVET development. The Pre-Tertiary Education Act 2020 (Act 1049) realigned all TVET institutions under the Ghana TVET Service, creating a parallel structure to the Ghana Education Service (GES). Currently, 231 TVET institutions fall under this service, leading to increased enrolment.
- **The Education Regulators Act (2020):** The Education Regulators Act 2020 (Act 1023) merged multiple institutions, including COTVET, NVTI, TEU, and NABPTEX, into the Commission for TVET (CTVET). This unified body now regulates and administers TVET at all levels, ensuring streamlined governance and accountability under the Ministry of Education.
- **Recognition of Prior Learning (RPL) ensures that knowledge gained in any context[10] —formal, non-formal, or informal—is assessed and accredited within the NTVETQF.** Formal learning occurs in structured institutions and leads to recognised certifications. Non-formal learning happens outside mainstream education, such as workplace training and community programmes. Informal learning, which constitutes 80% of skills training in Ghana, requires a structured recognition process. Currently, only 37% of training institutions enrol learners through RPL, highlighting the need for greater integration of prior learning into TVET structures.
- **Sector Skills Bodies (SSBs) are instrumental in bridging the gap between industry and training institutions.** They play a vital role in identifying and addressing skills gaps, ensuring that training programmes align with the ever-evolving demands of the labor market. Additionally, SSBs facilitate apprenticeships and work-based learning, providing real-world experience for trainee and ensuring they acquire relevant, industry-specific skills. As of 2023, Ghana had established 22 SSBs, which have contributed to the development of 103 Competency-Based Training (CBT) programmes, with another 115 still under development. This significant progress reflects the country's commitment to strengthening its TVET sector and aligning educational outcomes with labour market needs.

[9] The TVET Advocacy committee Position Paper submitted to the Minister of Education
[10] Recognition of Prior Learning (RPL) – Definitions, Principles and Guidelines, Prepared by SCFQ Partnership in Collaboration With Mfhea, May 2021

- **The Ghana TVET Service (GTVET) established by the Pre-Tertiary Education Act 2020, Act 1049, as a corporate body, the Ghana TVET Service is responsible for managing, overseeing, and implementing approved national policies and programmes related to Pre-tertiary Technical and Vocational Education and Training.** The Head office of the TVET Service is in Accra, with regional offices in all 16 regions of Ghana. It has a similar structure to the Ghana Education Service, with the Director-General (DG) serving as the chief executive officer of the Service and Regional Directors representing the DG in the regions. The regional director supervises and is accountable for all TVET schools, both public and private, in the region. It is responsible for both teacher and trainee performance by implementing appropriate policies and strategies to boost quality. The conditions for delivering quality TVET are directly the responsibility of the Service which ensures that resources are adequately distributed.
- **The purpose of Commission for Technical and Vocational Education and Training (CTVET) is to regulate, promote, and administer TVET in Ghana, according to the Education Regulatory Bodies Act 2020.** Among the many functions, CTVET has the mandate to formulate national policies for skills development across the broad spectrum of pre-tertiary and tertiary, formal, informal, and alternative education. It ensures the quality delivery of TVET by accrediting TVET institutions based on a set of criteria and standards, developing demand-driven curricula, assessments, and certifications, and facilitating research and development in the TVET sector. It is ultimately responsible for ensuring that TVET becomes the master key for unlocking the economic fortunes of the nations. CTVET is not regionally represented, unlike the TVET service, and operates mainly from the head office in Accra.
- **Free TVET Policy:** According to Article 25 (1b) of the 1992 Constitution of the Republic of Ghana, "Secondary education in its various forms, including technical and vocational education, shall be made generally available and accessible to all by every appropriate means, particularly through the progressive introduction of free education." Based this, the Ministry of Education achieved a significant milestone in September 2017 with the launch of the Free Senior High School (SHS) programme. Every Ghanaian child placed in a public Second-Cycle Institution by the Computerized School Selection and Placement System (CSSPS) during the school placement process is eligible for a free SHS education. The implementation of the free SHS policy was extended to all TVET institutions under Ghana TVET Services, which were included in CSSPS for selection by Junior High School graduates in 2022. The implementation of Free TVET aims to eliminate financial barriers, making technical education more accessible and affordable. This initiative is transforming the educational landscape in Ghana and establishing technical skills as a preferred option for young individuals seeking relevant expertise for the modern job market. Statistics from the Ghana TVET Service indicate that prior to the introduction of free TVET in the 2020/2021 academic year, enrolment in TVET was 32,407. Following the implementation of free TVET, enrolment increased to 46,300 in the 2021/2022 academic year, representing a 54% rise compared to the previous year. In the 2022/2023 academic year, enrolment further increased to 50,049, demonstrating a steady growth trend in TVET.

1.2.4. FUNDING CHALLENGES AND SUSTAINABLE MECHANISMS

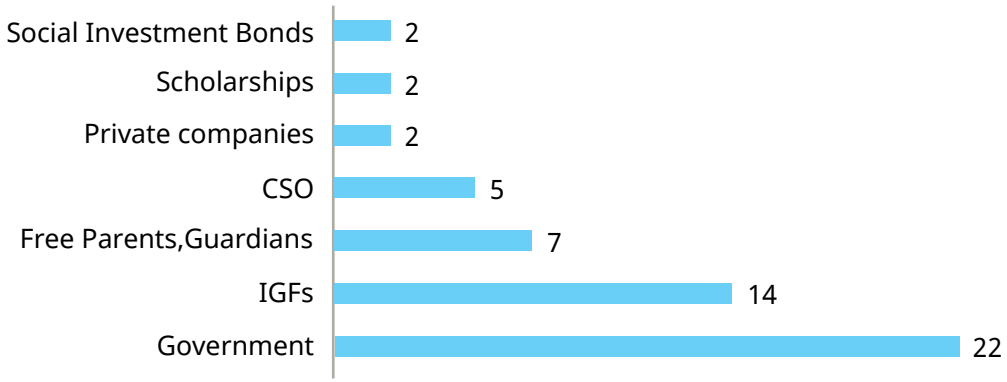
Despite the free TVET policy, financial constraints persist. TVET development in Ghana has been hindered by inadequate funding. Unlike traditional education, TVET requires specialized infrastructure, modern tools, consumables, and well-equipped workshops. Before the establishment of the TVET Service and the introduction of the free TVET policy, government support and focus on TVET were primarily directed towards the 47 Technical Institutes under the GES, which received budgetary allocations from the Ministry of Education. In contrast, other TVET institutions managed by various ministries experienced low budgetary support, especially where TVET was not central to their operations. The lack of improvement in infrastructure and other factors crucial for effective TVET delivery resulted in poor training outcomes.

Publicly available information on funding in Technical and Vocational Education and Training (TVET) in Ghana is limited and, in many cases, outdated. For instance, in 2017 the allocation of education funding offered minimal support to the TVET sector, with a greater share of attention and resources directed toward senior high schools. However, the ambition to align with global development goals and to reposition TVET as a catalyst for Ghana's industrialization prompted renewed national commitments and policy focus on strengthening the sector.

Funding for TVET in Ghana has always been multidimensional, with substantial support from development partners and donor communities. TVET funding sources include:

- Government Allocations (limited but growing post-2017 reforms).
- Development Partners and Donors, such as the World Bank, African Development Bank, German Ministry of Economic Cooperation, Danish Development Agency (DANIDA), Skills for Initiative Africa (SIFA), and the Netherlands Embassy.[11]
- These funds support infrastructure, capacity building, and specialised interventions. However, a sustainable financing mechanism is necessary to maintain progress and support long-term TVET development.

Graph 1: *Main Source of TVET Funding*
(Source: Ghana TVET report 2023)



[11] TVET Reports 2021 and 2023 list the number of Development Partners who have supported different initiatives.

1.2.5. INFORMAL SECTOR IN GHANA

The informal sector has become a key source of employment and livelihood for many Ghanaians, driven by both the push of rising unemployment and the pull of entrepreneurial opportunity. Despite operating under precarious conditions, this sector remains highly dynamic with low barriers to entry. The potential for growth has led to numerous attempts to formalize and better regulate it.

The International Labour Organization (ILO) has long committed to improving work conditions globally, and Ghana is no exception. According to the UNICEF's Generation Unlimited (GenU) Ghana assessment (2022), there are approximately 400,000 workers in the informal sector, though this figure remains debatable. Nonetheless, the sector remains largely unregulated and is plagued by underemployment and poor working conditions.

In Ghana, the informal sector is recognised as the largest platform for skills training, accounting for roughly 80% of urban training through Informal Apprenticeships Training (IAT). These apprenticeships are long-term, unstructured, and not based on a standardised curriculum; instead, training is tailored to the tasks performed within the training enterprise. IAT plays a crucial role in providing training to youth from disadvantaged backgrounds with limited formal education.[12] According to UNESCO/UNEVOC, informal apprenticeship involves on-the-job training, where apprentices work under the supervision of qualified individuals, acquiring trade-specific knowledge and skills.[13]

Local businesses and trade associations are integral in managing and regulating access to apprenticeship programmes. IAT has become the most effective pathway for youth to transition into employment, offering skills that meet the real-world demands of the labour market. Unlike formal TVET, which requires incentives for public-private partnerships (PPP) to ensure relevance, IAT is inherently demand-driven and closely linked to industry needs. However, despite its success, IAT lacks certification, structured training, and standardised competencies. Nevertheless, it has proven effective due to its real-world, experiential training approach.

Efforts to improve the quality of apprenticeship training have been underway, recognizing the sector's ability to absorb large numbers of youth and provide them with skills leading directly to employment. To standardise and enhance training quality, several strategies have been proposed:

Upgrading and certifying Master Crafts Persons (MCPs)

Introducing a dual training system that combines on-the-job and classroom learning

Certifying apprentice skills through the Recognition of Prior Learning (RPL)

Accrediting training providers

[12] A capability approach to understanding the role of informal apprenticeship in the human development of informal apprentices, Joyceline Alla-Mensah, Simon Mcgrath, University of Glasgow, July 2021

[13] TVETipedia Glossary - UNESCO-UNEVOC

Programmes such as the Ghana TVET Voucher Project (GTVP), the Ghana Jobs and Skills Project (GSDF), and the Ghana Education Outcomes Project (GEOP) have been introduced to improve quality and integrate informal training into the National TVET Qualifications Framework (NTVETQF).[14] By the end of 2022, the GTVP had trained over 18,087 MCPs and their apprentices, certifying them on the NTVETQF. The project supported various trade areas, including beauty or cosmetics, automotive repairs, building construction, garment or tailoring, electrical installation, and more.

One of the key initiatives to improve the informal sector's training involves linking it to formal institutions. Apprentices who complete their training in the informal sector now have the opportunity to access formal education, where they can be assessed and certified according to the NTVETQF. This integration fosters collaboration between formal and informal training, ensuring consistency and quality across both sectors. As of 2023, all 231 TVET institutions surveyed have enrolled apprentices and certified them based on the NTVETQF, signalling a strong partnership between informal and formal training provisions. The programmes or trade areas that are operational for this intervention are garment construction, cosmetology, electronics, automotive repairs, Building and construction, plumbing, furniture making, electrical installation, catering and hospitality management.

Support for informal sector training continues to increase, with development partners playing a significant role in enhancing apprenticeship programmes and contributing to the development of a skilled workforce for Ghana's industrialization agenda. These efforts aim not only to improve training quality but also to address informality and the associated risks, ensuring that work and business practices evolve in line with formal standards. By improving the informal sector's training capabilities, Ghana can build a more competent and competitive workforce, fuelling its economic growth and development.

[14] Ghana TVET Report 2023 interventions to improve access to IAT.

1.3. METHODOLOGY OF THE STUDY

In 2018/2019, Ghana's CTVET, with Ford Foundation support, conducted a nationwide skills gap analysis across seven sectors, informing policy reforms. However, it lacked regional-level insights for targeted interventions.[15] Recognizing these gaps, UNICEF partnered with Ghana TVET Service to conduct a regional study in Ashanti, chosen for its diverse industries and training providers.

This report is intended to complement and support the work done and aims to assess TVET supply and demand in the region, identifying skills gaps and informing future interventions.

The methodology for implementing the assignment adhered to the path discussed during the inception phases, employing the International Labour Organisation's (ILO) Skills for Trade and Economic Diversification (STED) methodology. This approach is designed to help countries align their skills development with their trade and economic diversification strategies. It provides a systematic way to identify both current and future skill needs in key sectors, thereby supporting trade expansion and economic growth. The research team combined a mixed-method approach, integrating both quantitative and qualitative research methodologies to ensure a robust and comprehensive analysis of the skills gap in the Ashanti Region. Furthermore, the study was conducted in a participatory manner, involving a diverse range of stakeholders to capture multiple perspectives. Key stakeholders include representatives from the public and private sectors, particularly employers, skills development organizations, policymakers, and civil society organisations. This inclusive approach enabled a thorough evaluation of the current skills gap situation in the Ashanti Region, ensuring that the findings accurately reflect the needs and challenges faced by different sectors of the economy.

Fourteen Industrial Liaison Officers (ILOs) were selected from TVET institutions under the Ashanti Regional Directorate of Ghana TVET Services and trained as enumerators for the assignment. The data collection encompassed all 43 MMDAs in the Ashanti Region, with each enumerator assigned to three adjacent districts, metropolitan, or municipal assemblies. However, in some instances, due to the concentration of training providers and industries, or other factors, variations in allocation occurred. To ensure efficient data collection, five supervisors were recruited to oversee the exercise.

The Cochran approach was employed to obtain a representative sample for this group, given the unknown size of the employer demand-side population. The formula is given by:

$$n0 = z^2 * p * (1 - p) / e^2$$

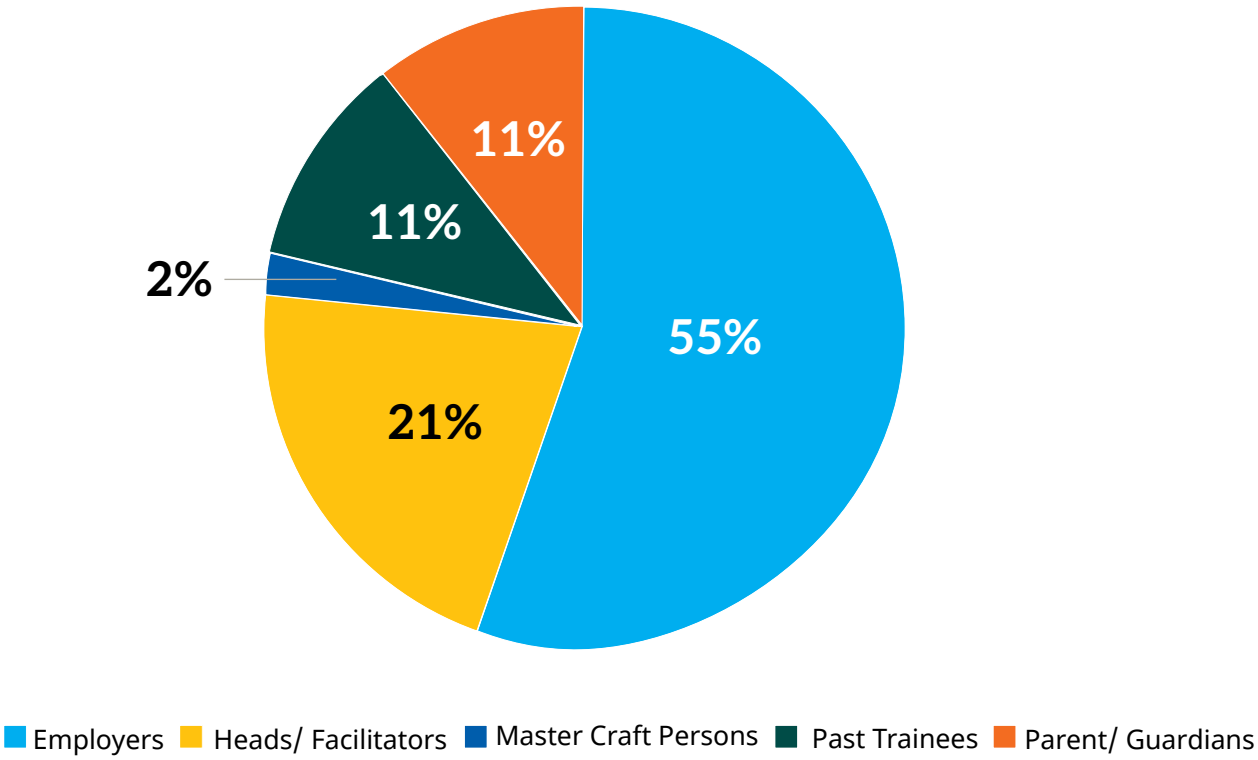
Where:

- n0 = required sample size
- z = z-value (the number of standard deviations from the mean)
- p = estimated proportion of the attribute present in the population
- e = margin of error (the desired level of precision).

[15] The seven sectors are to be added.

A randomization spreadsheet tool was used to select respondents based on the specified quota. For a total of n=580 (Stakeholders): The number for the employers on the demand side was 320 representing 55%, Heads/Facilitators was 124, representing 21%, the number for Master Craft Persons was 12, representing 2%, Past Trainees, 62 representing 11%, and Parents/Guardians also 62 representing 11%. The distribution of the respondents is indicated in the figure below.

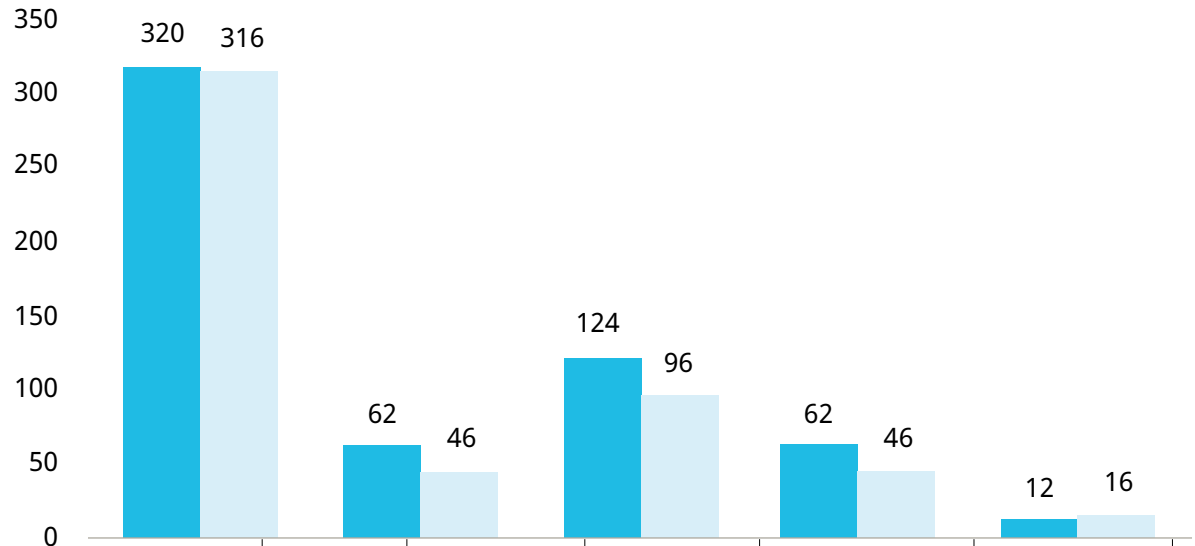
Graph 2: *Distribution of the Respondents as Part of the Research*



The research team employed a combination of methods to collect the necessary data to achieve the objective of the assignment. This included documents and a literature review, field survey using electronic data collection by enumerators, Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), and hard-copy documents sent to the head of the training providers.

At the end of the data collection period, 516 respondents were received, accounting for 89.31% of the expected total of 580 from both the supply and demand sides. On the demand side, 316 out of the projected 320 respondents were collected, resulting in a response rate of 98.75%. Additionally, 46 past trainees responded from a targeted 62, which amounts to 74.20%. While 12 Master Craft Persons were targeted, 16 were interviewed, exceeding expectations at 130.30%. For the Heads/Facilitators, the target was 124, but only 96 responses were received, representing 77.4% of the total. Finally, 42 respondents were collected from the 62 targeted, representing 67.74%.

Graph 3: *Distribution of the Respondents (Target Versus Actual) as Part of the Research*



	Demand	Parents/ Guardians	Principals/ Heads	Past Trainees/ Graduates	Master Craft Person
Target	320	62	124	62	12
Actual	316	46	96	46	16

During the data collection period, the team encountered several challenges, with the main ones outlined below.

- Some stakeholders hesitated to share data regarding their associations' membership.
- Some organisations refused to participate due to recent fraudulent activities involving individuals posing as researchers seeking to enrol organisations in the One District One Factory (1D1F) initiative. These miscreants deceived some of them out of GHS40,000.
- Some enumerators were less effective and failed to achieve their targets.
- The road network to the remote districts affected the research team's schedule.
- After the initial zoning of the 43 MMDAs and subsequent mapping of the schools, it was realised that only 25 of the MMDAs had formal TVET Institutions (public and private). This meant that the MMDAs needed to be re-zoned to allow for proper allocations.
- Although the TVET Directorate informed the schools of the ongoing field assignment, some enumerators faced challenges due to the non-availability of the target population, particularly past trainees and parents.
- The schools' profiling questionnaires were sent electronically in advance to be printed and completed, allowing enumerators to pick them up. In most cases, this was not the case. Enumerators had to travel back and forth to collect these instruments, which increased transportation costs.
- Some of the training institutions were on vacation, while others had been closed, which affected the targets.

In the next sections, the report presents an overview of Ashanti region, state of formal and informal TVET in the region along with stakeholder perception, followed up understanding skill demands of employers and sectors.

2

DEEP-DIVE INTO ASHANTI REGION

2.1. OVERVIEW OF ASHANTI REGION

The Ashanti Region is the third largest of 16 administrative regions Ghana, covering an area of 24,389 km². It is located in the middle belt of Ghana. The region shares boundaries with six regions namely, the Bono, Bono East, and Ahafo in the north, the Eastern Region in the east, the Central Region in the south, and the Western Region in the South west. The largest city and capital of Ashanti region is Kumasi.

The Ashanti Region operates under a local government system, comprising 43 Metropolitan, Municipal, and District Assemblies (MMDAs), including 1 Metropolitan, 18 Municipal, and 24 Ordinary Assemblies. Each is led by a Chief Executive and a Member of Parliament, with authority vested in an elected Assembly presided over by a chosen member. The region is accessible via Kumasi Airport for domestic flights and is connected by major highways, including the N4, N6, N8, N10, and regional roads like R52 and R106.

Image 3: *Political Map of Ghana With Ashanti Region and Its Borders*
(Source: https://www.ghanamissionun.org/map-regions-in-ghana/)

Image 4: *Ashanti Region districts*
(Source: https://en.m.wikipedia.org/wiki/File:Districts_of_the_Ashanti_Region_(2012).svg#filelinks)

2.2. SOCIO-ECONOMIC

The region is the second most populated in Ghana, with higher female population than male. The population of the region is 5,440,463, which comprises 17.6% of the total population of Ghana, according to the 2021 census.[16] In terms of gender distribution, the male population of the region is 2,676,914 (49.3%), while the female population is 2,760,649 (50.7%).[17]

Table 2: *Summary Demographic Characteristics of the Ashanti Region*[18]

S/N	DEMOGRAPHIC FACTOR	DEMOGRAPHIC FIGURE
1	Area of Ashanti Region	24,407.1 km²
2	Population	5.4 million
3	Male Population	2,679,914 (48.5%)
4	Female Population	2,760,549 (51.5%)
5	Population changes from 1975 to 2015	+150.4%
6	Population changes from 2000 to 2015	+51.2%
7	Median Age	20.7 years
8	Male Median Age	19.9 years
9	Female Median Age	21.5 years

The population of the region is concentrated in a few districts. In the Ashanti Region, 61% of the population resides in urban areas, while 39% live in rural regions. The region has a total of 1,523,101 households. The Kumasi Metropolitan District is the most populous Metropolitan Municipal District Authority (MMDA) in the region, with a population of 443,918, comprising 213,662 males (48.1%) and 230,256 females (51.9%). In contrast, the Sekyere Afram Plains District has a population of 32,640, comprised of 17,502 males (53.6%) and 15,138 females (46.4%), making it the least populated MMDA.[19]

Review indicated that 16 out of the 43 MMDAs in the Ashanti region are without any formal TVET institutions, whether public or private, at the pre-tertiary level. These MMDAs are: Amansie South District, Akrofuom District, Adansi South District, Adansi Asokwa District, Obuasi East District, Adansi North, Amansie West District, Asante Akim North, Old Tafo Municipal, Kwabre East Municipal, Ahafo Ano South West District, Ahafo Ano North Municipal, Ahafo Ano South East, Afigya Kwabre North District, Sekyere Central District, and Sekyere Afram Plains District. Considering the population Numbers of 296,814 in Kwabre East for example as compared with Bosome Freho of 62,259 but has 2 TVET schools, it is appropriate to establish new TVET Institutions in some of the high populated MMDAs. This can be a proposal for the private sector and industry to support in the short to medium term period as an incentive to encourage more Youth to undertake TVET education and thereby reduce demand and supply labour gaps.

[16] Ghana 2021 Population and Housing Census (PHC)
[17] Ibid.
[18] Ibid.
[19] Ibid.

Table 3: *MMDAs With TIs and Their Populations Disaggregated Into Male and Female*

No	Name of Institution/Districts	TIs			Population PHC (2021)		
		Private	Public	Total	Total	Male	Female
1	Kumasi Metro	5	3	8	443,981	213,662	230,319
2	Asokwa Municipal	3	2	5	125,642	61,000	64,642
3	Bosomtwe District		4	4	165,180	80,428	84,752
4	Ejisu Municipal	2	2	4	180,723	87,836	92,887
5	Kwadaso Municipal	2	1	3	154,526	75,205	79,321
6	Atwima Nwabiegya South	2	1	3	161,893	78,334	83,559
7	Atwima Nwabiegya North	3		3	155,025	76,877	78,148
8	Bekwai Municipal		3	3	137,967	66,616	71,351
9	Oforikrom Municipal	2		2	213,126	107,426	105,700
10	Sekyere Kumawu		2	2	64,396	30,890	33,506
11	Bosome Freho		2	2	62,259	31,427	30,832
12	Asante Akim Central		2	2	91,673	44,507	47,166
13	Suame Municipal	1	1	2	136,290	64,878	71,412
14	Offinso North		1	1	83,440	40,957	42,483
15	Atwima Kwanwoma		1	1	234,846	114,123	120,723
16	Amansie Central		1	1	93,052	48,393	44,659
17	Sekyere South		1	1	120,076	58,065	62,011
18	Obuasi Municipal	1		1	104,297	51,885	52,412
19	Asokore Municipal	1		1	191,402	93,506	97,896
20	Sekyere Central	-	-	-	73,228	36,490	36,738
21	Asante Akyem South		1	1	123,633	61,715	61,918
22	Sekyere East		1	1	74,789	35,731	39,058
23	Atwima Mponia		1	1	155,254	80,235	75,019
24	Afigya Kwabre South		1	1	234,667	115,067	119,600
25	Mampong Municipal		1	1	116,632	56,965	59,667
26	Ejura Sekyedumase		1	1	137,672	68,551	69,121
27	Juaben Municipal		1	1	63,929	31,203	32,726
28	Amansie South	-	-	-	116,366	61,460	54,906
29	Akrofuom	-	-	-	49,291	26,315	22,976
30	Adansi South	-	-	-	85,200	42,552	42,648
31	Adansi Asokwa	-	-	-	71,844	35,944	35,900
32	Adansi North	-	-	-	54,155	26,782	27,373

No	Name of Institution/Districts	TIs			Population PHC (2021)		
		Private	Public	Total	Total	Male	Female
33	Obuasi East	-	-	-	92,401	44,927	47,474
34	Amansie West	-	-	-	109,416	56,048	53,368
35	Sekyere Aframplains	-	-	-	32,640	17,502	15,138
36	Asante Akyem North	-	-	-	85,788	42,000	43,788
37	Old Tafo Municipal	-	-	-	114,368	55,086	59,282
38	Afigya Kwabre North	-			73,330	36,608	36,722
39	Ofinso Municipal	-	1	1	137,272	66,569	70,703
40	Ahafo Ano South East	-	-	-	63,468	32,071	31,397
41	Ahafo Ano South West	-	-	-	65,770	33,641	32,129
42	Kwabre East	-	-	-	296,814	143,684	153,130
43	Ahafo Ano North	-	-	-	92,742	46,753	45,989
	Grand Total	**22**	**35**	**57**			

Educational attainment (completion rate) varies across districts, with 40–50% of the population, especially females, having no formal or only pre-school education. Basic education levels range from 67.7% in Kumasi Metropolis to 86.9% in Amansie West District, while junior secondary school (JSS) enrolment remains low at 16.1–22.4%, declining further at higher levels. Illiteracy is more prevalent in rural areas and among females, ranging from 26.0% in Kumasi Metropolis to 64.7% in Ejura Sekyedumase District. Only Kumasi Metropolis, Adansi West, and Ejisu-Juaben have rates below the regional average of 40.4%.[20] Consequently, the current courses available in the TVET schools does not produce students to support all the economic activities of the region. For example, Agriculture that is prominent in the districts is available in only one TI. Details of TVET education is presented at chapter three of this report.

The economically active population varies across districts. Rural residents are predominantly engaged in agriculture, while urban residents tend to work in sales and production. Kumasi Metropolis has 71.4% and Amansie West District has 85.2% of economically active population. Among the economically active population, who worked for at least one day, the percentages range from 72.5% in the Kwabre District to 92.45 in the Offinso District. The main occupations in the districts include agriculture/animal husbandry/hunting/fishing (42.3%), production/transport/equipment (19.9%), Sales (17.8%), and Services (6.4%).[21] The main occupations in the Kumasi metropolis are professional ones, such as services and manufacturing, which account for 92.5% of the real estate activities in the Ashanti region, 90.2% of financial and insurance activities, 85.8% of air conditioning supply, and 85.7% of professional scientific and technical activities that are concentrated in the area. The economy predominantly consists of commerce and trade services, with an employment level of 71%, followed by industry at 24% and agriculture at 5%.

[20] Ghana 2021 Population and Housing Census (PHC)
[21] Ibid.

There is gender-based occupational variations in the region. For males, the major occupations are agriculture and related work (40.8%), production (24.8%), Sales (11.7%), clerical and related work (7.7%), and professional/technical and related work (7.5%). Females primarily work in agriculture and related work (43.9%), Sales (24.3%), Production/Transport/Equipment (14.6%), and Services (8.5%).[22]

Unlike national trends, the Ashanti Region has experienced a significant decline in poverty, driven by economic activities. As of 2023, nearly three million Ghanaians live in extreme poverty, defined by a $1.90 per day threshold, with projections showing a decrease to 2.8 million by 2025. Rural and peri-urban areas remain the most affected. According to the Ghana Statistical Service's Multidimensional Poverty Index Survey, poverty incidence in Ashanti fell from 31.1% in 2020 to 18.3% in 2024. This progress is largely due to improvements in agricultural productivity and industrial growth. Modern farming techniques and farmer support have increased output and incomes, while industrial expansion, particularly in manufacturing and mining, has created jobs, further reducing poverty levels.[23]

Unemployment rates are more pronounced in urban districts than in rural ones. The unemployment rate in the region ranges from 4.5% in the Ahafo Ano North District to 16% in the Kumasi Metropolis. 8 districts have unemployment rates exceeding 10%. In 13 districts, the female unemployment rate is relatively higher than that of males. This general trend is consistent for both sexes and may be attributed to the high rural-urban migration, seemingly in search of jobs that are hard to secure in urban areas.

Students, the elderly, retirees, and individuals with disabilities make up significant proportions of the economically inactive population across various districts. Youth constitute the largest group of those who are not economically active across all districts followed by elderly, retirees and persons living with disabilities.[24]

While economic growth has reduced poverty in Ashanti region, unemployment remains a challenge, particularly among youth and women. Sustaining progress requires targeted efforts in skills development, vocational training, and job creation, alongside policies that promote inclusive economic growth.

[22] Ibid.
[23] GSS (2024) Multidimensional Poverty Index Survey
[24] Ghana 2021 Population and Housing Census (PHC)

2.3. ECONOMIC DIVERSIFICATION AND TRADE IN THE REGION

The economy of the Ashanti Region, similar to that of the entire country, is largely driven by three key sectors: services, industry, and agriculture. The service sector in the region contributed 5.5% to GDP growth, surpassing the agriculture sector's 4.5% and the industry's 1.2% in 2023.

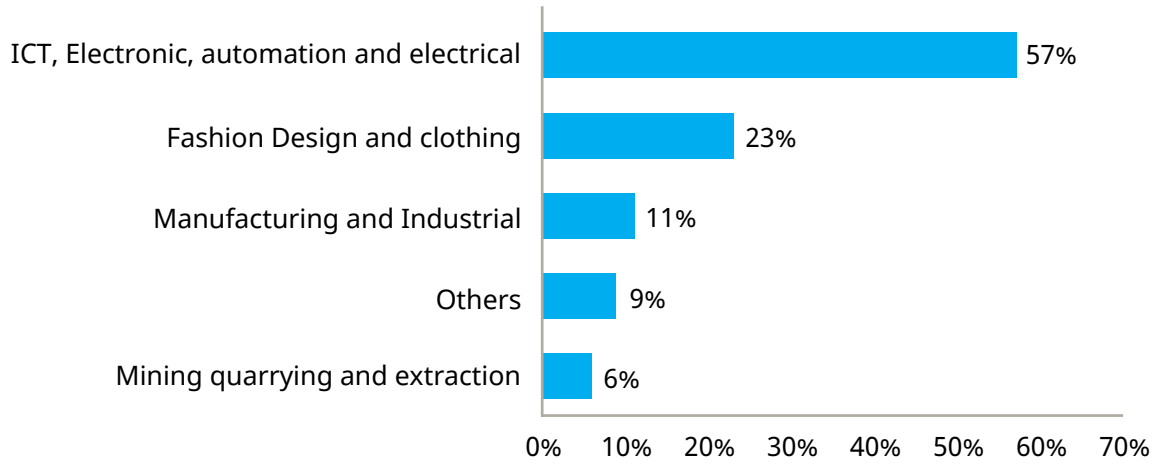
The region is largely self-sufficient, dominated by the service sector, agriculture sector, as well as by natural resources. Agriculture-related activities are the primary economic focus in the region, with rural areas primarily engaged in upstream agriculture and urban areas focusing on downstream agriculture, services, and manufacturing.

ICT, electronics, automation, and electrical services dominate the economy of the Ashanti region among others and providing key labour market. The data indicates that ICT, electronics, automation, and electrical services dominate the labour market, accounting for 57% of enterprise activities.

Despite this demand, only 4 out of 57 TIs offer training related to these specific trades. Fashion design and clothing represent 23% of enterprise activities. This sector offers significant employment opportunities for entrepreneurs and small business owners. The manufacturing and industrial sectors comprise 11% of all enterprises and are essential to economic activity. The TVET institutions offer a number of courses in the service sector to produce skills and competencies that are needed by the service sector.

Even though mining, quarrying, and extraction represent only 6%, they still provide a significant contribution to the labour market. Additionally, 9% of enterprises fall into the "Others" category, indicating a diverse mix of smaller industries collectively contributing to the economic activity. While these sectors may not be dominant, they still play a vital role in providing employment and fostering innovation.

Graph 4: *Specific Activities/Services of Enterprises Based on Research*



There is a growing demand for technical and non-technical skills in priority sectors. These have been further studied in this report.

[25] GSS (2021) Population and Housing Census Vol. 3C.

3

TVET IN ASHANTI REGION

3.1. EDUCATION AND TVET SYSTEM IN ASHANTI REGION

The Ashanti Region's education system aligns with national policies but requires improvements to meet international standards. As of 2021, the Ashanti region had a literacy rate of 82.0% for males and 74.2% for females, with an overall average of 78% of the population aged 6 and older being literate. This makes it the second region in Ghana, after Greater Accra, to have the most educated individuals and higher literacy rates.[26] It is home to some of the country's top institutions, with about 133 senior high schools and a variety of tertiary educational establishments, including 3 public universities, 11 private universities, 7 colleges of education, and other professional development institutions. A survey conducted by Addae and Isaac (2022) on household spending shows that approximately 57% of household income is allocated to education, reflecting a strong societal commitment. For instance,

[26] Ghana Statistical Service 2021 housing Census report

the Otumfuo Education Fund (OEF) has made a significant contribution by supporting over 310,000 students in the region, with a particular focus on female education and providing schools with infrastructure and resources.

The region is renowned for its skills development and craft training, exemplified by the intricate weaving of Kente and its celebrated leather factories for shoe-making. Interestingly, Kumasi is home to the first specialised university for technology education, the Kwame Nkrumah University of Science and Technology (KNUST). Additionally, the Kumasi Technical University (KsTU) and the Akenten-Appiah Menka University of Skills Training and Entrepreneurship Development (AAMUSTED) are state-supported initiatives aimed at enhancing TVET to the highest levels, thereby fostering a competent workforce for the region's and country's development.

3.2. FORMAL TVET (PUBLIC AND PRIVATE)

The Ghana TVET Service oversees 35 public and 27 private TI in the Ashanti Region. The TIs provide training on the NTVETQF up to Level 4 (Certificate 2) in various trades and occupations approved by the CTVET. Formal TVET delivery is regarded as training that is provided in an orderly, logical, planned, and systematic manner in a specially equipped workshop under the guidance of a qualified trainer for a specific period in the designated field.[27] The TVET Service Directorate in the Ashanti region coordinates the training and learning outcomes of these institutions by ensuring the enforcement of policies.

3.2.1. FORMAL TVET AND COURSES OFFERED

16 out of the 43 Metropolitan, Municipal, and District Assemblies (MMDAs) in the Ashanti region lack both public and private registered formal TIs at the pre-tertiary level. The survey covered 57 institutions, comprising 35 public and 22 private ones, across 27 MMDAs. The Kumasi Metropolitan and Asokwa Municipal Assemblies each have 5 technical institutes in their jurisdiction, while 16 MMDAs lack any formal TVET institutions. The 37.2% of MMDAs without technical institutes could limit access to TVET provision and skills acquisition.

There are 43 occupational trades offered by the 57 technical institutions in the Ashanti region, comprising 22 private and 35 public institutions. Gender trends appear to be influential in course offerings and enrolment patterns. With Fashion Design Technology and Cosmetology often seen as female-dominated fields, and trades such as Welding, Electrical Engineering, and Automotive Engineering traditionally attracts more male participants, there may be gendered preferences influencing both the types of courses offered and the enrolment rates in certain trades.

[27] TVETipedia Glossary - UNESCO-UNEVOC

An overview of the vocational trades and skills offered by TIs in the Ashanti region reveals a diverse range of courses across both public and private institutions. The most commonly offered trade is Fashion Design Technology, which is available in 41 institutions, making up 72% of the total institutions in the region. This is closely followed by Electrical Engineering, offered in 32 institutions (56%), and Catering and Hospitality, which is available in 30 institutions (53%). These fields reflect the high demand for skills in electrical, engineering, and hospitality, which are key sectors in both local and global economies. Notably, 55% of employed graduates are engaged in the fashion and catering industries, with many fashion graduates operating as self-employed entrepreneurs. Although there is strong representation in traditional sectors such as fashion and hospitality, notable gaps exist in areas like agriculture and advanced technology. Expanding offerings in these areas could further align TVET institutions with regional and national development goals, ensuring a workforce equipped for future challenges.

Trades in the construction sector are also well-represented, with Building and Construction offered in 28 institutions (49%) and Plumbing Technology and Gas in 14 institutions (25%). Additionally, Wood Construction is offered exclusively by public institutions in 15 locations, accounting for 26% of the total institutes. These trades indicate the region's focus on infrastructure development, with an increasing need for skilled workers in construction-related fields.

Garment Construction (offered in 13 institutions, 23%) and Cosmetology (available in 11 institutions, 19%) also have strong representation, which aligns with the traditional perception of these fields as being female-dominated. These industries continue to experience demand for skilled workers, particularly in areas such as fashion, beauty, and personal care.

Most trainees in the trades mentioned above (fashion, beauty, and cosmetology) tend to lean towards self-employment, which typically requires minimal capital to get started. The industry survey was unable to capture these businesses as most of them operate within the informal sector. Catering and hospitality offerings also illustrate the service sector as the dominant part of the economy in the Ashanti region, alongside the expanding tourism sector.

The textile and apparel sector, under which the fashion program falls, was one of the critical sectors listed under the Africa Growth and Opportunities Act (AGOA),[28] for trade preference with the United States of America. The Presidential Initiative on Clothing and Textiles was established in Ghana to boost trade in the fashion industry. Additionally, it can be inferred that fashion is a perishable product with a short life cycle, generating a desire for new trends and styles. This causes the fashion trade, encompassing fashion design technology, garment construction, and dressmaking, to remain in constant demand.

Meanwhile, the agriculture sector appears underrepresented, with only one technical institute offering Agricultural Mechanisation Technology, despite the growing emphasis on agriculture through government initiatives like the "Planting for Food and Jobs" programmes. This highlights a potential gap in TVET provision in the agriculture sector. with the background that agriculture is the second most important sector dominating the economy of the Ashanti region, and this could affect job creation and employment in the region.

[28] The African Growth and Opportunity Act (AGOA) is one of the flagship programmes under the Agenda 2063 (Africa's Development Framework), which aims at accelerating intra-Africa trade and boosting Africa trading position in the global market, strengthening African's voice and policy space. It started in the year 2000 and its validity period expires in 2025.

Notably, according to the Ghana TVET report 2023, approximately 17 CBT programmes have been developed within the agriculture sector, including agricpreneurship, poultry production, fishery value chain production, oil palm value chain production, cashew, mango, and citrus value chain production. The agriculture mechanisation technology programme was introduced to modernize and also improve the productivity of the agriculture sector.

There are 6 agricultural colleges of Education in the country, and 2 of these are in the Ashanti region. These are the Kwadaso College of Agriculture and Ejura College of Agriculture. These colleges supply labour at the tertiary level for the demand industries. The Kumasi Technical University (KsTU) created an Automotive and Technology in Agricultural Engineering department in 2020 to offer agriculture programmes at the bachelor's level to train students on mechanisation to improve the productivity in the agriculture sector. The Kwame Nkrumah University of Science and Technology (KNUST) and the Akenten-Appiah Menka University of Skills Training and Entrepreneurship Development (AAMUSTED), both based in Kumasi, have departments focused on agriculture, offering training in diverse agricultural programmes. The Kumasi Institute for Tropical Agriculture (KITA) offers practical, hands-on training in agriculture with specialisations in horticulture and animal husbandry. agribusiness management and other short courses in mushroom, snail, crab, and fish farming, as well as Farm management, landscape design, and vegetable and crop farming, are also offered at KITA. For an agricultural sector that dominates the economy of the Ashanti region, it will be essential to have more TIs offering programmes in agriculture to complement the offerings in the above-listed institutions.

Emerging fields such as Solar PV Technology and Computer Hardware and Software reflect global trends in sustainability and technological advancement. These trades, while offered in fewer institutions, highlight the region's growing interest in green energy and the need for technological skills to meet future industry demands.

Table 4: *List of Trade/Skill Areas (Both CBT and Non-CBT)*

Sector	Trades Offered	Level on TVETQF	No. of Private	No. of Public	Total	% of TIs
Automotive	Automotive Engineering	1-4		4	4	7%
	Automobile Engineering	Non-CBT		3	3	5%
	Motor Vehicle & Body Repairs	Non-CBT		2	2	4%
	Motor Vehicle Technology	Non-CBT		2	2	4%
	Heavy Duty Mechanics	Non-CBT		2	2	4%
	Motor Vehicle Electricals	Non-CBT		1	1	2%
	Motor Vehicle Mechanics	Non-CBT		1	1	2%
Construction	Building and Construction	3 and 4	1	27	28	49%
	Plumbing Technology and Gas	1 and 2	2	12	14	25%
	Architectural Draughting	Non-CBT	1	5	6	11%
	Decoration	1 and 2	2		2	4%
	Bio digester Construction	3 and 4		1	1	2%
	Block laying & Tiling	1 and 2		1	1	2%

Sector	Trades Offered	Level on TVETQF	No. of Private	No. of Public	Total	% of TIs
ICT	Computer Hardware and software	3 and 4	1	7	8	14%
	Information Technology	Non-CBT		2	2	4%
	Computer Networking	3 and 4		1	1	2%
	General Printing	Non-CBT		1	1	2%
	Secretarialship	Non-CBT		1	1	2%
Textiles & Apparels	Fashion Design Technology	3 and 4	11	30	41	72%
	Garment Construction	1 and 2	11	2	13	23%
	Dressmaking	Non-CBT	1		1	2%
	Leather Works	Non-CBT	1		1	2%
	Textiles	Non-CBT	1		1	2%
Electronics automation & machines	Electrical Engineering	1 - 4	3	29	32	56%
	Electronic Engineering	1 - 4		2	2	4%
	Electrical Mach. Motor Rewinding	Non-CBT		1	1	2%
	Refrigeration & air-condition	Non-CBT		1	1	2%
Beauty and wellness	Cosmetology	1 and 2	7	4	11	19%
	Hairdressing	Non-CBT	3		3	5%
	Beauty Therapy	Non-CBT	2		2	4%
	Hair Technology	Non-CBT	1		1	2%
Wood and forestry	Wood Construction	3 and 4		15	15	26%
	Furniture Works	1 and 2		1	2	4%
	Upholstery Design Technology	Non-CBT		1	1	2%
Metal	Welding and Fabrication Technology	1 - 4		10	10	18%
	Mechanical Engineering	1 - 4		5	5	9%
	Metal Machining	Non-CBT		1	1	2%
Tourism & Hospitality	Catering and Hospitality	3 and 4	7	23	30	53%
	Cookery	Non-CBT	1		1	2%
Art	Fine Art	Non-CBT		1	1	2%
	Picture Making	Non-CBT	1		1	2%
Renewable energy	Solar PV Technology	1 and 2	1	2	3	5%
Agriculture, agribusiness	Agric Mechanization Technology	Non-CBT		1	1	2%

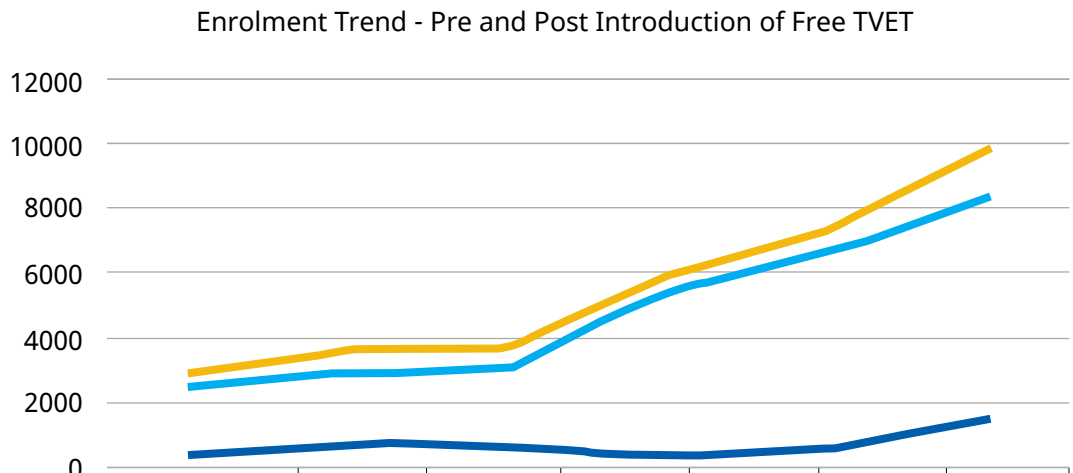
The table above indicates that all 43 programmes (both CBT and non-CBT) offered in the 57 technical institutes fall within 11 industry sectors or skills blocks. As of December 2024, there were 24 approved sector skill blocks by the CTVET. The CBT programmes are accredited to run from Levels 1 to 4. Although the non-CBT programmes are not accredited, they are designed to be completed within the same duration as the CBT programmes and are awarded certificates under

the National TVET Qualifications Framework (NTVETQF). Additionally, TIs also highlighted to be running a blended approach of CBT and non-CBT (traditional) teaching methods. This situation highlights a lack of alignment among the programmes offered in the technical institutes, despite all of them operating under the Ghana TVET (GTVET) system.

3.2.2. FORMAL TVET ENROLMENT, GENDER AND DROPOUTS

Enrolment in both public and private TIs has shown consistent growth since the introduction of free TVET in the 2021/22 academic year. Data spanning from the 2018/19 academic year to the 2023/24 academic year indicates a steady rise in TVET enrolment overall. However, the most significant enrolment increase occurred with the implementation of the free TVET policy, which was rolled out across all pre-tertiary public TVET institutions starting in the 2021/22 academic year. Notably, enrolment in private TVET institutions saw a decline both in the year preceding (2020/21) and the year following (2021/22) the introduction of the policy. Despite this, enrolment in both public and private institutions surged in the 2023/24 academic year.

Graph 5: *Enrolment Trend Over Six Academic Years*



	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	Pre-free TVET Enrolment			Free TVET Era Enrolment		
Private	468	737	637	423	611	1570
Public	2501	2958	3173	5568	6747	8333
Grand Total	2969	3695	3810	5991	7358	9903

Public institutions continue to enrol a larger proportion of trainees than private institutions. In the 2023/24 academic year, public TVET institutions accounted for 84% of total enrolment, while private institutions represented 16%. In total, 9,903 trainees were enrolled in TVET institutions across the Ashanti region in the 2023/24 academic year.

The decline in enrolment at private TVET institutions was expected, given the similar trend observed in the Senior High School (SHS) sector when the SHS policy was made free, leading to the closure of several private institutions. However, unlike the SHS sector, private TVET institutions in the Ashanti region have remained operational and viable, albeit with some decline in enrolment.

There is limited data on the total capacity of public and private TVET institution is the region. The capacity utilization of the TIs cannot be determined; however, it is clear that most public TIs have more than the required number due to congestion in facility use. Some resident trainees are unable to be housed on campus, so they must rent off-campus accommodations. During an interview with a key informant, it was revealed that, for instance, the programme in Heavy Duty Mechanics has over 500 trainees enrolled with only two trainers or facilitators. In the Senior High Schools, a clear indication of excess enrollment due to the free SHS policy was the introduction of the double-track or shift system to manage the numbers. This is not yet the case for technical institutes; however, there is growing concern for infrastructure expansion and development.

The flexibility in training delivery among private TVET institutions has contributed to avoiding closures. Private TIs typically offer shorter programmes focused on proficiency Levels 1 and 2 of the NTVETQF, allowing them to admit trainees throughout the year and provide greater adaptability. Additionally, the collaboration between the CTVET and private institutions in implementing donor-funded initiatives, such as the Voucher Project and the Ghana Skills and Jobs Initiative, demonstrates their capacity to respond to changing demands. Private institutions are particularly successful in engaging with the informal sector and managing the Recognition of Prior Learning (RPL) processes, further enhancing their relevance and sustainability. These programmes are usually in garment, construction, dressmaking, cosmetology, catering, or cookery and generally involve low fees. Details of fees and training costs are presented in subsequent pages.

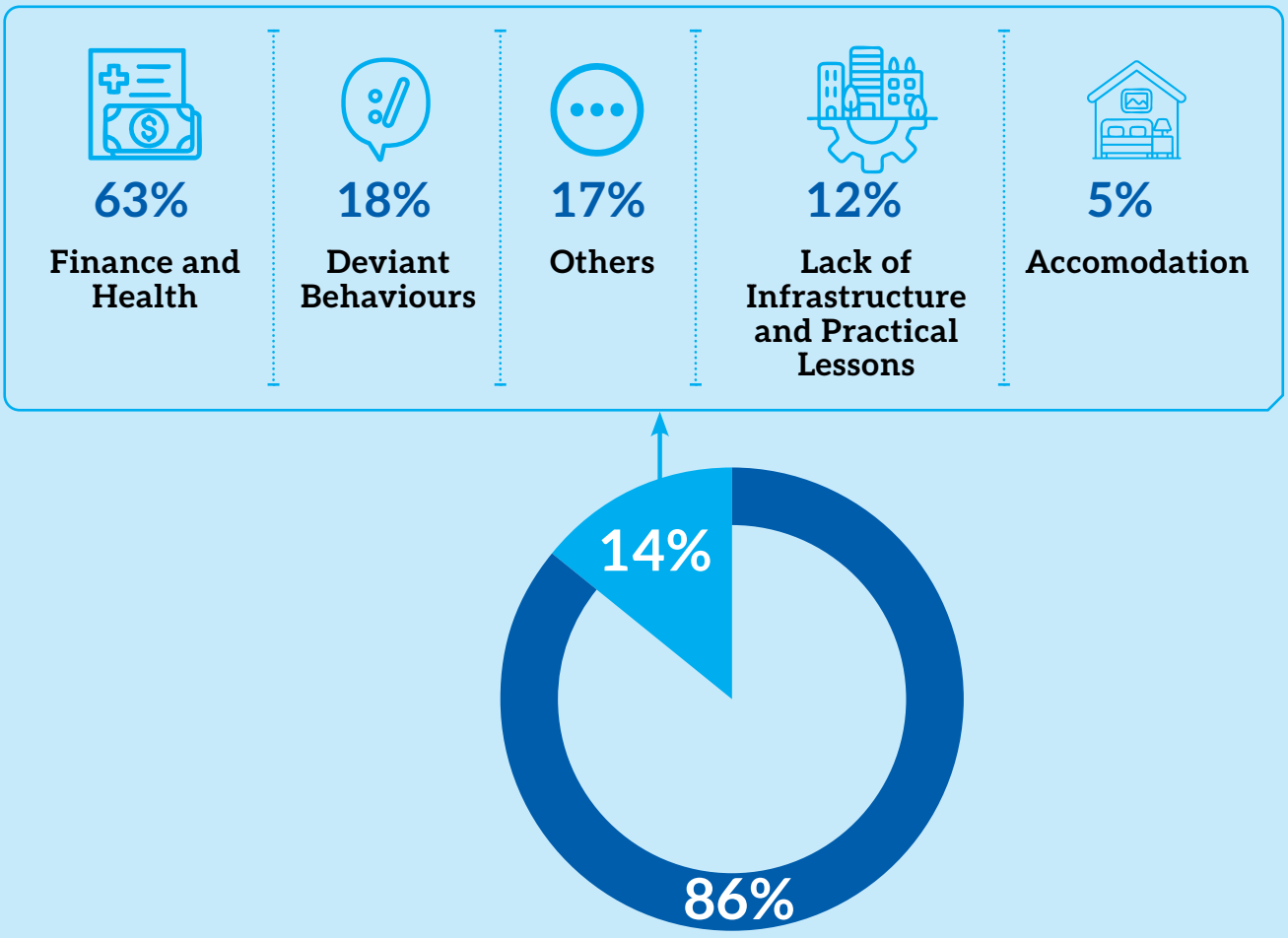
In terms of gender distribution, private TVET institutions has a slightly higher rate of female enrolment compared to males, whereas male participation exceeds female participation in public TIs. For example, in the 2018/19 academic year, females comprised 80% of private TVET enrolment, while males represented 20%. By the 2023/24 academic year, this gap narrowed, with females accounting for 59% and males for 41%. In contrast, public TVET enrolment in the same periods showed a reversal: in 2018/19, female enrolment stood at 44%, and male enrolment at 56%. However, the gap between female and male participation in public institutions widened with the onset of the free TVET policy, as evidenced in the 2023/24 enrolment data, where males represented 67% and females accounted for 33%.

The higher female participation in private TIs is likely due to the nature of the trades offered, many of which are traditionally seen as female-dominated, such as Fashion Design Technology and Garment Construction. For instance, 11 out of the 22 private institutions in the region provide courses in fashion design technology, and another 11 offer garment construction training, which are

both considered female-oriented fields. This trend suggests that private TVET institutions continue to cater to gendered expectations about vocational training, with more options available for females in certain skill areas. This is also because these trades are delivered in short terms, ranging from 6 months to 12 months, on levels 1 and 2 of the NTVETQF.

In TIs, financial and health-related challenges are the primary reasons trainees leave before finishing their training. Trainee dropout refers to the premature discontinuation of studies before completing training programmes. Dropout rates in the TIs remain relatively low, with 86% of respondents reporting rates between 0% and 5%. However, 14% of respondents indicate higher dropout rates exceeding 6%, highlighting the need for targeted retention strategies. Financial and health-related difficulties account for 63% of drop-out cases, as many trainees struggle with living expenses, and personal health issues, making it difficult to sustain their training. Accommodation difficulties also play a role, affecting 5% of trainees who struggle with unsuitable housing or challenging living conditions that hinder their academic progress. Behavioural issues, including disciplinary problems and negative peer influences, contribute to 18% of dropouts. Additionally, 17% of dropouts are linked to personal circumstances such as family responsibilities, lack of motivation, and other unforeseen life challenges. Insufficient infrastructure and inadequate practical learning facilities further exacerbate the problem, contributing to 12% of dropouts. The lack of hands-on-training opportunities in certain fields leaves some trainees feeling unprepared and disengaged.

Figure 1: *Drop-Out Rate and Their Reasons*



3.2.3. TVET FINANCING IN THE ASHANTI REGION

TVET financing remains a challenge due to its higher costs compared to traditional education. In the 2021/2022 academic year, the cost of training a non-residential TVET learner in Ghana was GHS2,920, while a residential learner cost GHS4,875. In comparison, the government spent GHS2,761.95 on a non-residential learner at SHS and GHS4,716.95 on a residential learner. In the private TIs, the cost of training continues to be a burden for parents, whereas in the public TIs, since the implementation of the free TVET policy in 2021/2022, the government has taken up the cost of training. The government releases or disburses to the TIs; however, delays create some challenges. In a Focus Group Discussion (FGD), trainees in public TIs indicate that they were asked to bring their own materials and ingredients for a practical demonstration.

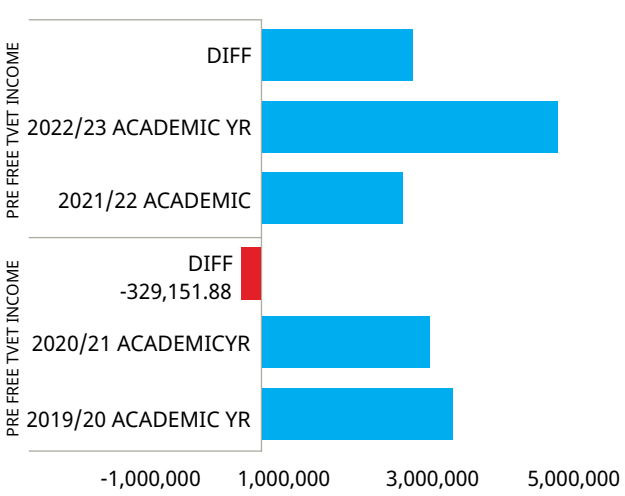
Of the 43 trades or programmes reported as being offered by the TIs in the Ashanti region, respondents provided the cost of training for 18 trades. The cost of training for both private and public Tis varies across trade areas, with cosmetology being the most expensive, ranging from GHS5,200 to GHS9,250. Conversely, catering, hospitality management, and electrical engineering are more affordable, attracting a larger number of learners. Training in areas such as fashion design technology begins at a minimum cost of GHS187 but increases at higher levels. These costs are charged per semester. There are two semesters in each academic year. The trainees in private TIs bears these costs. For public TIs, some trainees are asked to contribute towards the cost of consumables, as expressed by a trainee from Offinso Technical Institute.

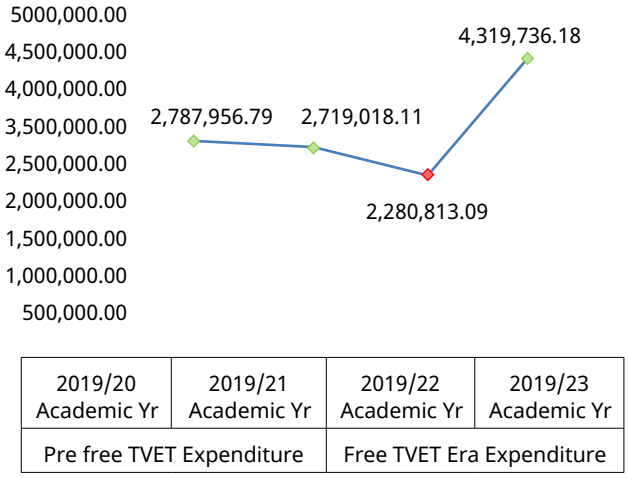
Table 5: *Cost Ranges for Training Delivery Per Semester*

#	Occupational Trades	Cost Range Gh¢
1	Electrical Engineering	187.50 -7,000.00
2	Building and Construction	187.50 -7,000.00
3	Catering and Hospitality	187.50- 7,000.00
4	Fashion Design Technology	187.50- 7,000.00
5	Architectural Draughting	1,950.00 - 4,000.00
6	Wood Construction	1,950.00 - 7,000.00
7	Plumbing Technology and Gas	300.00 -6,300.00
8	Welding and Fabrication Technology	200.00 - 4,579.80
9	Automobile Engineering	3,969.00
10	Automotive Engineering	711.19 1,950.00
11	Motor Vehicle Technology	4,579.80
12	Mechanical Engineering	200.00
13	Cosmetology	5,200.00-9,250.00
14	Beauty Therapy	5,000.00-9,250.00
15	Hairdressing	4,000.00-9,250.00
16	Computer Hardware and Software	735.40 - 7,000.00
17	Garment Construction	3,000.00 - 5,000.00
18	Decoration	3,000.00 - 5,000.00

With the introduction of the free TVET policy, TVET delivery costs doubled, though income[29] for training institutions (TIs) remained largely unchanged. For instance, income dropped from GHS2,726,389.68 in the 2019/2020 academic year to GHS2,397,237.80 in the 2021/2022 period. This is the period that the free TVET policy was implemented. By the 2022/2023 academic year, the income of TIs had slightly increased, but it still failed to cover expenses, resulting in a deficit of approximately 98% between expenditure and income. Public TIs primarily face costs related to practical learning and consumables, while private institutions include staff salaries in their expenses. This funding gap raises concerns about how the difference is financed and warrants further investigation.

Graph 6 : *Income and Expenditure of TIs in the Ashanti Region (Pre and During Free TVET)*





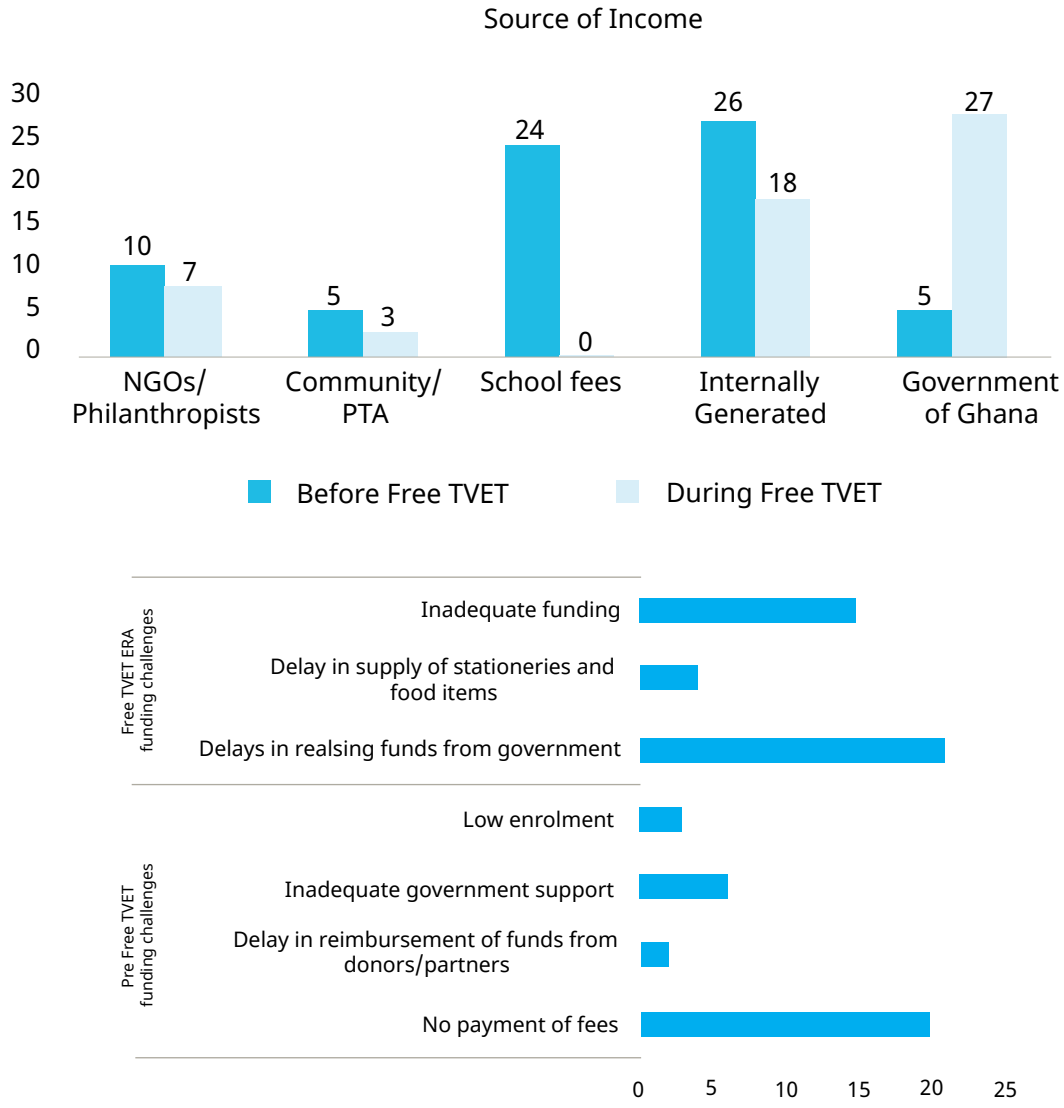
2019/20 Academic Yr	2019/21 Academic Yr	2019/22 Academic Yr	2019/23 Academic Yr
Pre free TVET Expenditure		Free TVET Era Expenditure	

Before the free TVET policy, Internally Generated Funds (IGF) and school fees were the main income sources for TIs. However, during the free TVET era, school fees ceased to be a revenue stream, and the government and IGF became the primary sources of funding. TIs have successfully generated income through the use of their facilities and services, demonstrating TVET's role in creating business opportunities and ensuring survival. Despite this, the increased enrolment under free TVET has placed pressure on staff and resources, affecting the ability to generate sufficient IGF.

Funding for TVET continues to be a significant challenge. Although the government now funds training, the increased demand for TVET services has strained the national budget, leading to delays in releasing funds. This has particularly impacted training consumables and support for residential learners. The reduced funding prior to free TVET led to low enrolment and minimal government support, while reliance on delayed NGO funds added further stress. Inadequate resources hinder the effectiveness of TVET, affecting the quality of education and training outcomes.

[29] All monies coming to the TI including Government subvention, fees and internally generated funds

Graph 7: *Sources of Income in Ashanti Region*



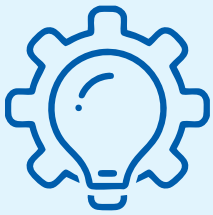
3.2.4. TVET QUALITY AND INFRASTRUCTURE

3.2.4.1. Teaching Staff

Of the total 2,005 staff employed across the 57 TIs, 1,312 are teaching staff, representing 65%, while 693 are non-teaching staff, making up 35% of the workforce. Public TIs employ 1,690 staff (84%), while private TIs account for 315 staff (16%). A majority, 88%, of the total staff are permanent, indicating a high level of job security, which is likely a key motivator for many workers. The study did not specify the composition of the non-permanent staff; however, these positions are typically filled by national service personnel, volunteers, or individuals hired for specific projects or on temporary contracts.

In terms of gender distribution, of the total 2,005 staff, 1,214 are male (61%) and 791 are female (39%), highlighting a gender imbalance. In both private and public institutions, the proportion of male staff is higher than that of females. In private TIs, males make up 57% of the 315 staff, while females represent 43%. In public institutions, males constitute 61% of the 1,690 staff, and females account for 39%. Interestingly, the proportion of female staff is slightly higher in private institutions than in public ones. Additionally, in the non-teaching staff category, females in public institutions represent 53%, marginally outnumbering male non-teaching staff. This is reflective of the staffing needs in public institutions, which often operate boarding facilities and employ a significant number of domestic staff, predominantly female.

3.2.4.2. Training Methodologies



Most institutions utilise a blended approach (competency-based training and traditional curricula) for delivering training. Interestingly, 97% of all training capacity building programmes for staff is in Competency-Based Training (CBT) approach. However, it is not fully implemented, as respondents indicated they primarily use a blended approach that combines CBT with traditional methods, accounting for 69%. A quarter of institutions (24%) exclusively use CBT, while a small percentage (7%) rely solely on traditional training methods. The blended approach is emerging as a compelling model, and more attention should be focused on understanding why CBT cannot be fully implemented.

While Competency-Based Training (CBT) offers a more practical and learner-centered approach to skills development, its effective implementation faces significant challenges under current TVET conditions. The traditional teaching method relies on typical pedagogy, emphasising academic and theoretical approaches. In this model, a teacher or instructor delivers content while trainees become passive recipients. There is significant emphasis on examinations and ordinal rankings. In contrast, the CBT methodology has emerged as an outcome-based approach, focusing on a facilitator who guides learners toward self-discovery through active participation. This requires a complete overhaul of classroom arrangements, curricula, and assessment methods. Ideally, a CBT approach suggests a maximum of 25 trainees per class for optimal results. Trainees are expected to learn at their own pace, eliminating the need for examinations. The focus is on trainees gaining competency through continuous practice. The required resources are quite substantial; for instance, a facilitator, an internal verifier, and an external verifier are needed to assess a learner's competency based on a set of criteria or standards. If competency is not achieved, the process is repeated multiple times. This approach is more practical, with experts stating it costs five times more than the traditional method. To implement a CBT programme, an institution must be accredited in accordance with CBT standards and criteria. Given these requirements, it is challenging to

meaningfully implement CBT in the current environment of Free TVET and significantly higher pupil-teacher ratios (PTR). **The increase in enrolment, without a proportional expansion in trained facilitators and infrastructure, compromises the core principles of CBT—individualized instruction, continuous assessment, and hands-on practice—thus limiting its effectiveness under current constraints.**

3.2.4.3. Competency-Based Training (CBT) Accreditation

Only 58% of the surveyed TIs in the Ashanti region hold Competency-Based Training (CBT) accreditation. The initial CBT accreditations were completed in 2016, with expectations for more institutions to obtain accreditation in subsequent years. However, as of now, only 33 institutions in the region—comprising 16 private and 17 public institutions—are accredited as CBT centres, enabling them to offer CBT-accredited programmes. This accounts for 58% of the total TIs surveyed. Notably, private TIs show higher compliance, with 73% of the 22 private TIs accredited by CTVET, compared to 49% of the public TIs.

Competency-based training (CBT) is a delivery methodology that responds to industry demands for producing highly skilled and competent individuals based on approved standards. TheW CBT approach is a comprehensive package that addresses curriculum development, trainer disposition, trainee attitude, and infrastructure provision. A CBT programme is developed considering these factors, ensuring that training is delivered in a way that assures quality to stakeholders. A TI is awarded CBT accreditation if it meets specific equipment provision requirements and can then run CBT programs.

The most common reason some TIs are not accredited is the lack of infrastructure to meet the accreditation requirements. The second most significant factor is that the accreditation process is underway, meaning that while the process has started, the timeline for completion and the status of accreditation remains uncertain. Additionally, the cost of accreditation is another contributing factor to the delays in achieving accreditation for some institutions. As of 2024, the cost to accredit a technical institute as a CBT centre is GHC2,000. Each CBT program on the NTVETQF costs GHC4,000. It costs GHC600 to accredit a teacher as a CBT facilitator who can serve as either an internal or external verifier. The cost of establishing a CBT centre can be five times higher than that of a conventional TI.

Since 2007, a decision has been made for TVET in Ghana to be delivered in the CBT mode, which means that the regulatory agency must accredit all TIs after they meet the accreditation criteria. The CBT Accreditation Package outlines the requirements that TIs must fulfil, including producing a list of their Board of Governors, business registration certificates, a library, a sick bay, TI strategic plans, health and safety policies, CBT-certified trainers, a well-functioning workshop, and evidence of financial sustainability. A TI that is prepared with all these can now approach the regulator, in this case, CTVET, and indicate its readiness for accreditation. A Quality Assurance Committee will then conduct a physical inspection of the facilities and documents. If satisfied, a TI shall receive institutional accreditation; if unsuccessful, the gaps identified during the inspection are to be addressed. The overall duration of the process is six months or more.

Below is a flowchart from CTVET detailing the accreditation process.

Graph 8 : *Application Flow for Accreditation*

STEP 1

Applicant applied for accreditation and it is received and recorded by CTVET.

STEP 2

CTVET checks all attachments for completeness and informs applicants through phone and email (Return to applicant to provide missing information/ document).

STEP 3

Applicant makes Bank Draft payment into account of CTVET. CTVET acknowledges receipt and informs applicant about the length of time (90 days) to process application through official letter (Return to applicant to provide missing information/document).

STEP 4

CTVET checks application documents.
1. Fully compliant (proceed to next step).
2. If partial or non-compliant due to missing document, inform applicant through official letter by the DG and copy to QAC Chairperson.

STEP 5

Evaluation Team conducts on-site inspection using CTVET conducts on-site inspection using CTVET checklist.
1. Evaluation team submits report to QAC for accretion decision.
2. QAC recommend its decision to the Board for ratification/approval.

STEP 6

CTVET communicates Board's decision to applicant (conditional/full accreditation/denial).
NB. Applicant reserves the right to appeal against the Board's decision.

STEP 7

Applicant is issued with accreditation certificate on full compliance or a letter on conditional accreditation.

Table 6: *Accreditation Status of the TIs*

Accredited for CBT	Private	Public	Grand Total
No	5	18	23
Yes	16	17	33
Non-response	1		1
Grand Total	**22**	**35**	**57**

Table 7: *Reasons for Non-Accreditation*

S/N	Reasons for lack of CBT Accreditation	Frequency	Percentage
1	Lack of infrastructure to meet the accreditation requirements	8	35%
2	In the process of securing accreditation	6	26%
3	The school can't afford the accreditation fee	4	17%
4	Recently realigned to Ghana TVET Service and yet to be accredited	3	13%
5	It is a new institution that is yet to apply for CBT accreditation	2	9%
	Total	**23**	**100%**

Electrical Engineering and Garment Manufacturing are the most commonly accredited trades among institutions in the Ashanti region. The affordability of establishing a workshop for programmes like Fashion Design Technology, Garment Construction, and, to some extent, Electrical Installation affects the ease of accreditation. A well-equipped workshop is one of the key criteria for running a CBT programme. Of the 19 accredited CBT occupational trades available across 33 accredited institutions, 39% (13 institutions) offer courses in these two fields, (Fashion Design Technology and Garment Construction) with programme durations ranging from 6 months to 5 years.

Shorter-duration CBT courses tend to be more popular. While most trades require more than a year of training, four—Electrical Engineering, Cosmetology, Plumbing and Gas Fitting, and Solar PV Technology—can be completed in a year or less. This shorter timeframe likely makes these programmes more attractive to young people seeking quicker skill acquisition and employment opportunities. Short CBT courses are often provided by private training institutions, which tend to be more flexible and adaptable to the principles of CBT due to their smaller size and enrolment numbers.

The strong presence of accredited private TIs has played a crucial role in maintaining enrolment levels, even after the introduction of free TVET, which initially drew many trainees toward public institutions. Moreover, accreditation has not only enhanced the credibility of private TIs but also positioned them as key partners in national skills development initiatives. By securing opportunities such as the CTVET Voucher Project, these institutions have strengthened their resilience and expanded their impact, reinforcing their role in bridging the skills gap and creating employment pathways.

Table 8: *Accredited CBT Programmes*

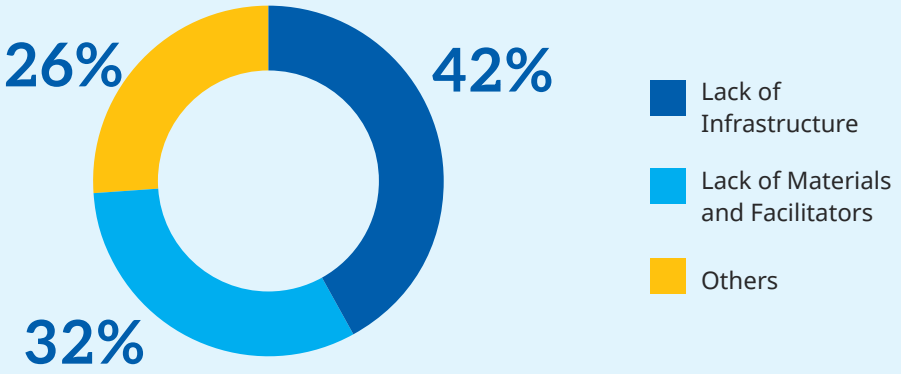
S/N	CBT Trades Offered	Duration of Training	Private	Public	Total	%
1	Electrical Engineering	6 months - 5 years	3	10	13	39%
2	Garment Construction/ Making	6 months - 5 years	11	2	13	39%
3	Fashion and Design	2 years - 5 years	4	6	10	30%
4	Catering and Hospitality	2 years - 5 years	4	5	9	27%
5	Cosmetology	6 months - 5 years	7	1	8	24%
6	Building Construction	3 years - 5 years	1	6	7	21%
7	Plumbing and Gas Fitting	1 years - 5 years	2	4	6	18%
8	Welding Fabrication	3 years - 5 years		5	5	15%
9	Automobile Engineering	3 years - 5 years		4	4	12%
10	Computer Hardware and Software	3 years	1	1	2	6%
11	Wood Construction	3 years		2	2	6%
12	Electronic Engineering	3 years			2	6%
13	Mechanical Engineering	3 years		1	1	3%
14	Solar PV Technology	1 year	1		1	3%
15	Computer Networking Systems	3 years			1	3%
16	Decoration	2 years	1		1	3%
17	Furniture Works	5 years			1	3%
18	Block Laying and Tiling	5 years			1	3%
19	Biodigester Construction	3 years			1	3%

The table above shows the 19 CBT-accredited programmes in both private and public TIs. The study did not find information on the number of trainees enrolled only in CBT programmes.

3.2.4.4. Quality Of TVET

Stakeholder feedback highlights key challenges in TVET education, with 42% of respondents citing inadequate infrastructure, indicating shortages in facilities, equipment, and modern technology needed for practical training. Additionally, 32% identified a lack of teaching materials and qualified instructors as major concerns, affecting instructional quality. The remaining 26% pointed to issues such as outdated curricula, administrative inefficiencies, and limited trainee support services. Addressing these challenges is crucial for improving the overall quality of TVET education.

Graph 9: *Concerns for Quality TVET Delivery*



3.2.4.5. Infrastructure and Workshop Quality

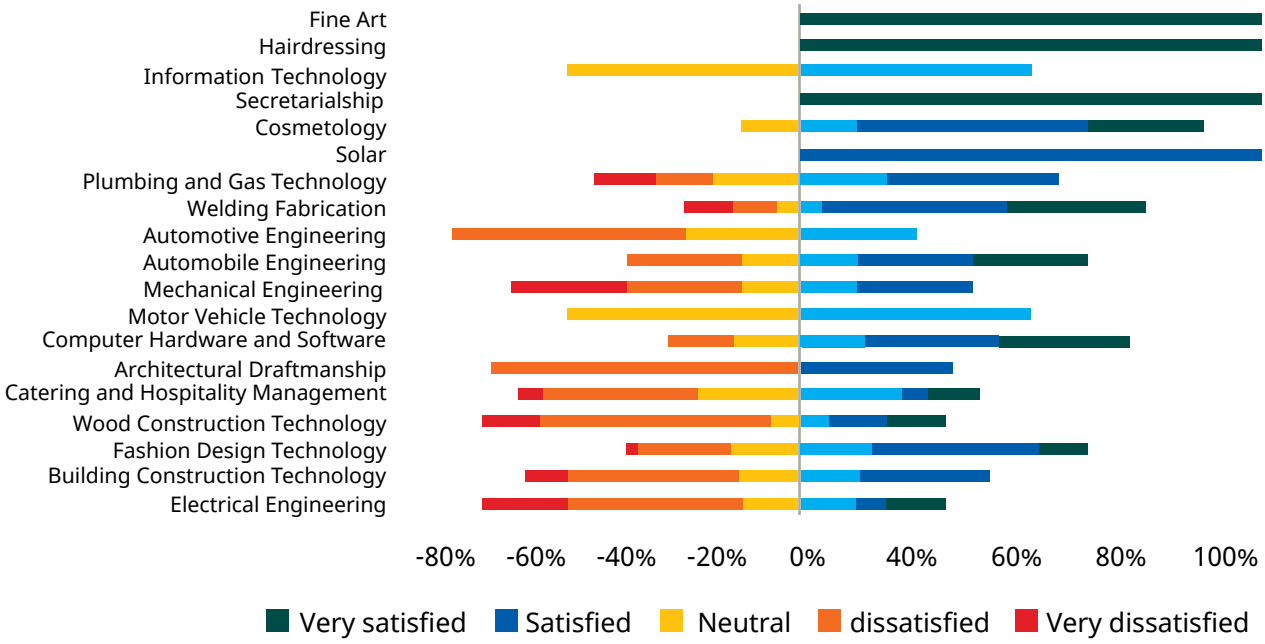
The quality of infrastructure, availability of workshops and access to essential training equipment are critical factors in delivering effective TVET programmes. However, limited infrastructure and inadequate teaching materials remain significant barriers to quality TVET education in the Ashanti region. Institutions with well-maintained workshops are often CTVET-accredited for Competency-Based Training (CBT) and eligible for donor-funded projects such as the Voucher Project, which may contribute to better infrastructure. Observations from institutional visits revealed that TVET institutions formerly under the Ministry of Education tend to be better equipped than other institutions now integrated under the Ghana TVET Service Framework.

Most institutions claim to have workshops for their designated trade areas, however, there is wide variation in quality and overall satisfaction level of the trainees. Institutions offering Welding and Fabrication have dedicated workshops, but fewer than half (39%) of those providing Catering and Hospitality Management training use the same classroom for both theory and practical training. This is concerning, as hands-on training is essential for these fields and cannot be effectively conducted in standard classrooms.

Table 9: *Occupational Trades and Workshop Availability*

# of VTis	Occupational Trades	YES	NO
38	Fashion Design Technology	36	2
32	Electrical Engineering	16	16
30	Catering and Hospitality Management	18	12
28	Building and Construction Technology	11	27
15	Wood Construction Technology	9	6
11	Cosmetology	8	3
10	Welding and Fabrication	10	0
10	Plumbing and Gas Technology	8	2
9	Architectural Draftsmanship	3	6
8	Computer Hardware and Software	7	1
5	Mechanical Engineering	4	1
5	Automobile Engineering	2	3
4	Automotive Engineering	4	0
2	Motor Vehicle Technology	1	1
2	Solar	1	1
1	Secretarialship	1	0
1	Information Technology	1	0
1	Hairdressing	1	0
1	Fine Art	1	0

Graph 10: *Satisfaction of Quality of Workshop Facilities at TIs*



Dissatisfaction is widespread among trainees in engineering-related trades, where inadequate facilities significantly hinder practical learning. Institutions offering Electrical Engineering, Building Construction Technology, Wood Construction Technology, Catering and Hospitality Management, Architectural Draughtsmanship, Automobile Engineering, and Mechanical Engineering report serious concerns about workshop conditions. Trainees from Offinso Technical Institute and Abosamso Technical Institute confirmed that they often rely on classrooms as makeshift workshops and must purchase their own materials, adding financial strain to their training. These limitations directly contradict the core purpose of TVET, which is to provide hands-on, industry-relevant training.

A trainee from Offinso Technical Institute, studying Electrical Engineering, expressed his frustration:

"We don't have a workshop for practical; we use our classrooms instead. The school has very few tools, so we are required to buy our own."

Meanwhile, trainees from Kumasi Technical Institute revealed that despite having well-equipped workshops, access is restricted. A female Auto Mechanics trainee shared her concerns:

"Yes, we have workshops with modern equipment, but the school does not allow us to use them because they think we will steal the equipment."

Conversely, institutions offering Fashion Design Technology, Computer Hardware and Software, Automotive Engineering, Welding and Fabrication, and Cosmetology report higher satisfaction levels with their workshop facilities. For instance, 95% of TIs offering Fashion Design Technology have functional workshops.

A trainee from Bethel School of Fashion and Design shared her positive experience:

"Our school has a workshop equipped with modern sewing machines, and we are allowed to use them. In fact, I was motivated to enrol because of these modern machines, and I have not regretted choosing this school."

It is worth noting that because private TIs offer specialisations, concentrating on one programme at a time, they can equip their workshops to the standard required for accreditation.

3.2.4.6. Workplace Experience Learning (WEL) in TVET Institutions

Workplace Experience Learning (WEL) is a fundamental component of the Competency-Based Training (CBT) approach, designed to bridge the gap between classroom instruction and real-world industry practice. Workplace Experience Learning (WEL) refers to a mandatory industrial attachment programme, designed to expose trainees to industry operations and practices, enhancing their practical skills and employability. The structured nature of WEL ensures that trainee progress is monitored, with school officials gathering feedback from industry partners to assess performance and address skills gaps. The WEL is usually undertaken during vacations with a maximum duration of six to eight weeks per semester. For a year, a learner in a TI should have done at least 3 months in the industry for real-life learning. With shorter courses of 6 months, a one-month WEL is incorporated at the minimum. Although WEL is not originally designed as part of the traditional delivery model, many TIs have incorporated it into a blended approach that combines both traditional and Competency-Based Training (CBT) methods.

Despite its importance, access to WEL varies significantly between public and private training providers. Among the 57 surveyed institutions, 91% offer trainees the chance to undertake internships, highlighting a strong commitment to practical skill development. While all 35 public TIs provide opportunities for trainees to participate in WEL, only 17 of the 22 private institutions (77%) offer similar opportunities. The 23% indicate that these trainees have their internships or WEL programs at the school since their institutions function as industries or businesses themselves.

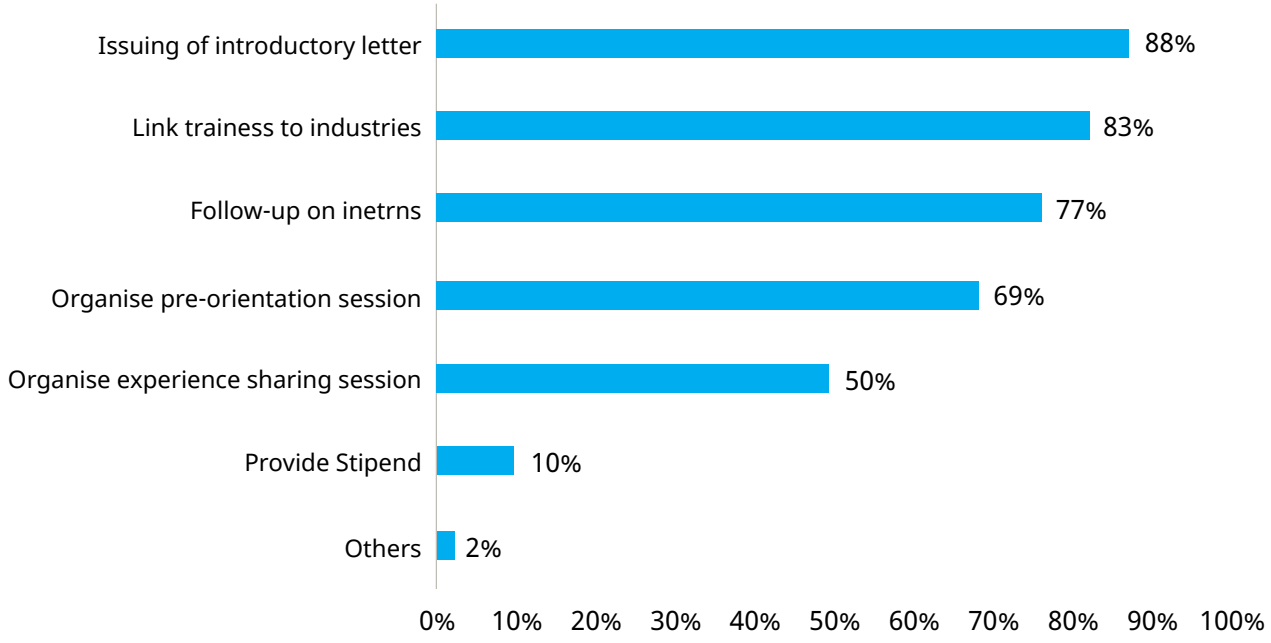
When asked about opportunities for Work-Based Experiential Learning (WEL) at the Bethel School of Fashion, the trainees shared that while formal internship arrangements outside the school were not available, the institution integrates practical learning into its structure. one of the trainees explained that although there are no external placements, the school operates on a commercial basis, allowing trainees to use its production units and equipment for hands-on learning. Similarly, Hannah noted that although students do not go outside for internships, the school is well-equipped to provide the necessary skills. From their second year onward, trainees are assigned to the production unit for practical training, enabling them to learn through direct involvement in the school's production activities.

Table 10: *Opportunities for Workplace Experience Learning*

WEL Opportunities	No	Yes	Total
Public	0	35	35
Private	5	17	22
Total	5	52	57

Institutional support for WEL varies significantly. While 88% of institutions assist trainees by issuing introductory letters and facilitating placements, only 77% actively monitor trainee progress. Financial assistance is even more limited, with just 10% of institutions providing stipends - creating a financial burden for trainees who may struggle with the costs associated with internships.

Graph 11: *Support Provided by TIs*



3.2.5. TVET CAPACITY AND PERFORMANCE FROM STAKEHOLDER PERSPECTIVE

3.2.5.1. Perspective of Ashanti's Heads and Facilitators on TVET

TVET heads and facilitators are central to the success of training delivery. As the highest authority in their institutions, heads oversee both academic and administrative functions, ensuring that teaching and learning processes run smoothly. They manage staff, monitor delivery plans, and, when necessary, step into classrooms to instruct trainees themselves. Their leadership plays a vital role in shaping institutional success. Facilitators, on the other hand, are responsible for delivering training programmes effectively. They prepare lesson plans, teach theoretical concepts in classrooms, and conduct hands-on demonstrations in workshops. Beyond instruction, they maintain discipline, assess trainee progress, and serve as direct points of contact for learners. Their role is critical in

translating curriculum objectives into practical skills that prepare trainees for the workforce.

A total of 49 heads and 51 facilitators responded to the survey. Their responses paint a comprehensive picture of the individuals leading technical and vocational education in the Ashanti Region. The data sheds light on key trends, including gender representation, age distribution, work experience, specialization, and competency-based training (CBT) preparedness.

The majority of TVET heads and facilitators are men, with women making up only a third of the workforce. Specifically, 67% of the surveyed professionals are male, while 33% are female. This gender imbalance suggests that leadership roles in TVET institutions are still predominantly held by men. However, the presence of women in the sector, though limited, indicates a potential to improve gender diversity in leadership and decision-making roles.

Most TVET heads and facilitators are seasoned professionals over the age of 35. This group makes up 75% of respondents, highlighting a workforce with significant experience. Meanwhile, 24% fall within the 25-35 age range, suggesting a moderate influx of younger professionals into the field. The near absence of individuals aged 18-24 implies that younger graduates may not be transitioning into these roles immediately, likely due to experience requirements or extended educational pathways.

A significant portion of TVET professionals have relatively short tenure at their institutions. Nearly half (45%) have been in their current positions for five years or less, reflecting recent hiring trends and the growing importance of vocational education. At the same time, 34% have worked in their institutions for over a decade, bringing stability and deep institutional knowledge. A smaller group (16%) has six to ten years of experience, while only 5% have been employed for less than a year, possibly indicating limited recent recruitment or retention challenges.

TVET institutions emphasise higher education credentials among their workforce. The largest group of professionals, 41%, hold master's degrees, while 30% have bachelor's degrees. A smaller percentage (17%) possess diplomas, and 13% hold certificates. This focus on advanced academic qualifications suggests a commitment to improving instructional quality and institutional leadership within vocational education.

Specializations among TVET heads and facilitators are diverse, with a strong presence in hospitality and technical fields. The most common areas of expertise include catering, hospitality, and fashion (42%), followed by engineering (25%) and building construction and technology (17%). Additionally, 8% of respondents specialize in administration, while 2% have a background in chartered accountancy, which prepares them for management and leadership roles.

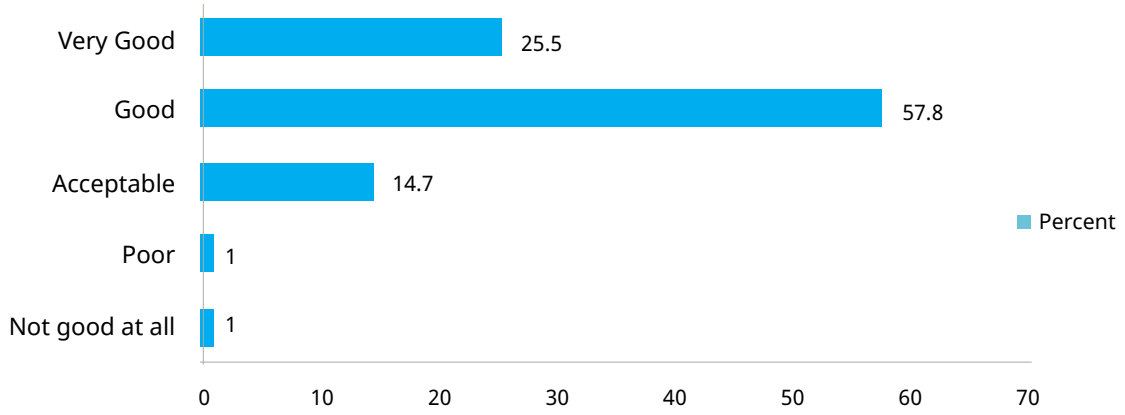
Despite significant investments in capacity-building programmes for technical subject areas, training in management and soft skills for TVET heads and facilitators remains limited. Over the past five years, TVET professionals have actively participated in various skill enhancement programmes, with Competency-Based Training (CBT) being the most widely attended. Additionally, 16% of professionals have received training in financial management, signalling a growing recognition of the importance of fiscal responsibility and administrative competencies within TVET.

Other specialized training programmes, such as auditing and risk management (3%), guidance and counselling (3%), and leadership in management (3%), cater to specific governance, trainee support, and institutional leadership needs. However, the overwhelming dominance of CBT training over other capacity-building programmes highlights a strong emphasis on skills-based instruction while exposing a potential gap in leadership and administrative training. Addressing this gap could enhance institutional management and decision-making capabilities.

Although most TVET heads and facilitators have undergone CBT training, a notable portion still lacks this essential qualification. Approximately 85% of respondents have completed CBT training, equipping them with the necessary skills for effective technical and vocational education delivery. However, 15% have yet to receive this training due to challenges such as institutional delays, limited programme availability, incomplete documentation, or recent recruitment after prior training sessions. These barriers underscore the need for improved access to CBT training, ensuring a more standardised and effective implementation of competency-based education across TVET institutions.

Most respondents rated their institutions' overall performance positively in delivering demand-driven training. A majority, 57.8%, rated the performance as "Good," while 25.5% deemed it "Very Good." Meanwhile, 14.7% found it "Acceptable." Only a small fraction of respondents rated the performance negatively, with 1% categorizing it as "Poor" and another 1% labelling it as "Not good at all."

Graph 12: *Assessment of the Performance of the Institutions*



Heads of institutions and facilitators, provided insights into the quality of TVET education in the region. Their responses highlight both strengths and areas needing improvement, offering a clearer understanding of how well TVET institutions prepare trainees for the labour market.

Table 11: *Perceptions of TVET Provision at the Region*

Statements	Mean	Standard Deviation
The institute provides opportunities for private sector/industry placements/WEL	4.35	0.67
The skills and knowledge being provided by the institute are very useful in the labour market and contribute to graduates' employability after completion	4.23	0.63
The teaching and training pedagogy adopted and used in the institute is adequate in equipping trainees with the requisite skills to meet industry requirements	3.96	0.81
The soft skills (e.g. Foundational Literacy and Numeracy, Life Skills) being provided by the institute are adequate to give trainees a competitive advantage in the job market	3.91	0.75

Statements	Mean	Standard Deviation
The TVET curriculum and content used in the institute are relevant in equipping trainees with the requisite skills to meet industry requirements	3.89	0.92
Majority (over 50%) of your graduates enter into employment (both wage and self-employment) 6 months after completion	3.77	1.06
Trainees/Students who come in or enrol in the institute are well-prepared for their programme of study	3.66	0.99
The institute has a full complement of teachers to deliver the required competencies	3.38	1.26
The institute has adequate infrastructure to provide quality TVET for competent, skilled forces to meet industry requirements	2.89	1.33
The institute has adequate materials to deliver quality TVET to meet industry requirements	2.81	1.22

A key attraction for trainees enrolling in TVET programmes is the opportunity for Workplace Experience Learning (WEL). With a mean score of 4.35 (SD = 0.67), WEL received the highest rating, reflecting strong industry linkages that provide trainees with essential real-world exposure. Additionally, TVET graduates are generally considered well-equipped for the labour market, with the skills and knowledge offered by institutions earning a high rating of 4.23 (SD = 0.63). Soft skills, such as literacy, numeracy, and life skills, were also viewed favourably, scoring 3.91 (SD = 0.75), reinforcing their role in enhancing graduates' employability.

The TVET curriculum and teaching methodologies are perceived as effective in equipping trainees with industry-relevant skills. The curriculum received a mean score of 3.89 (SD = 0.92), while teaching and training pedagogy was rated slightly higher at 3.96 (SD = 0.81). These findings suggest that most respondents believe TVET programmes align well with industry needs, although some variation in opinions exists.

However, significant challenges remain, particularly in infrastructure and resource availability. The adequacy of infrastructure for delivering quality training was rated among the lowest aspects, with a mean score of 2.89 (SD = 1.33), indicating concerns over insufficient facilities. Similarly, the availability of teaching materials received a low score of 2.81 (SD = 1.22), highlighting resource gaps that hinder effective training. These challenges contribute to disparities among institutions, as reflected in the high standard deviation values.

The availability of qualified instructors was rated moderately at 3.38 (SD = 1.26), suggesting that while most institutions have a sufficient number of trainers, some still face shortages. This directly impacts the quality of training and institutions' ability to meet industry standards.

Employment outcomes for graduates appear relatively positive, with a mean score of 3.77 (SD = 1.06) indicating that more than half of TVET graduates secure employment—whether wage or self-employment—within six months of completing their training.

However, variations across institutions suggest that employment prospects may depend on industry demand in specific trades.

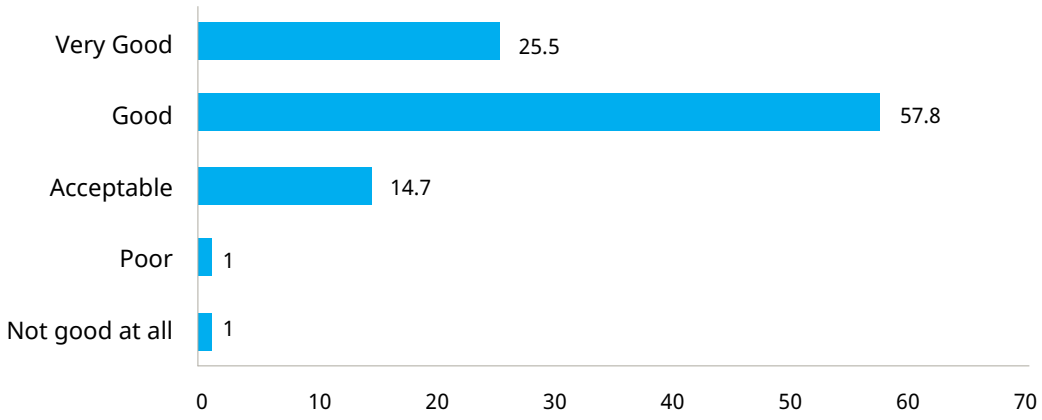
Finally, the preparedness of incoming trainees was rated at 3.66 (SD = 0.99), indicating that while most trainees have a reasonable level of readiness, their background knowledge and skills vary. Addressing these disparities through foundational training may further enhance learning outcomes.

Trainees in TVET institutions exhibit both positive and negative attitudes, with absenteeism and truancy being the most concerning issues, while eagerness to learn stands out as their most commendable trait. Among the positive attributes, the strongest is their enthusiasm for learning, recognised by 56% of respondents' heads and facilitators. Nearly half (45%) also appreciate the trainees' commitment and discipline, indicating a strong sense of responsibility among many learners. Cooperation is another valued trait, cited by 21%, demonstrating their ability to work effectively with peers. Additionally, 18% highlight the trainees' receptiveness and attentiveness, reflecting their openness to learning and engagement in lessons. Creativity and competence are acknowledged by 16%, while 13% of respondents commend their overall behaviour and conduct.

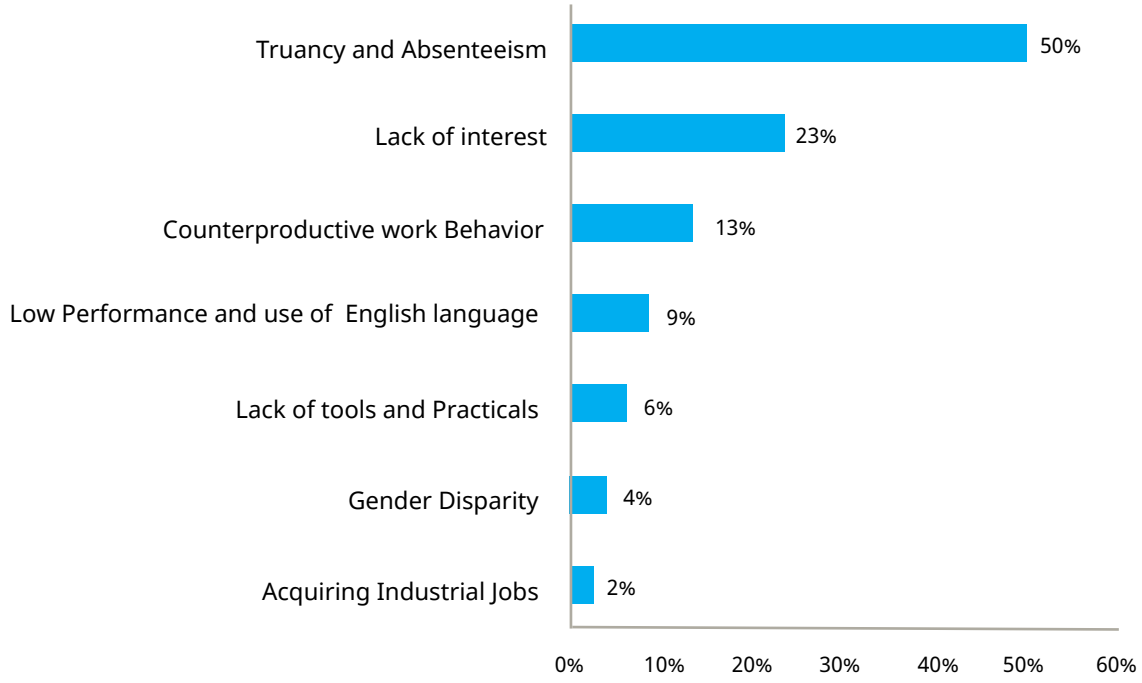
Despite these strengths, several challenges persist, with truancy and absenteeism being the most significant concerns, reported by 50% of respondents' heads and facilitators. A lack of interest in learning is a major drawback, cited by 23%, suggesting that some trainees struggle with motivation. This could be as a result the free TVET where trainees only want to take advantage of the free but without any serious intentions. Counterproductive work behaviour is noted by 13%, while 9% of respondents express concerns about low performance and difficulties with the English language. Additionally, 6% point to the lack of tools and practical training opportunities as barriers to effective learning. Gender disparity is highlighted by 4%, and only 2% mention concerns about trainees' ability to secure industrial jobs after completing their programmes.

Overall, while TVET trainees display a strong willingness to learn and positive work ethics, addressing challenges such as absenteeism, motivation issues, and resource limitations could further enhance their development and career readiness.

Graph 13: *Respondents' Feedback on Trainees' Positive Attitudes (%)*

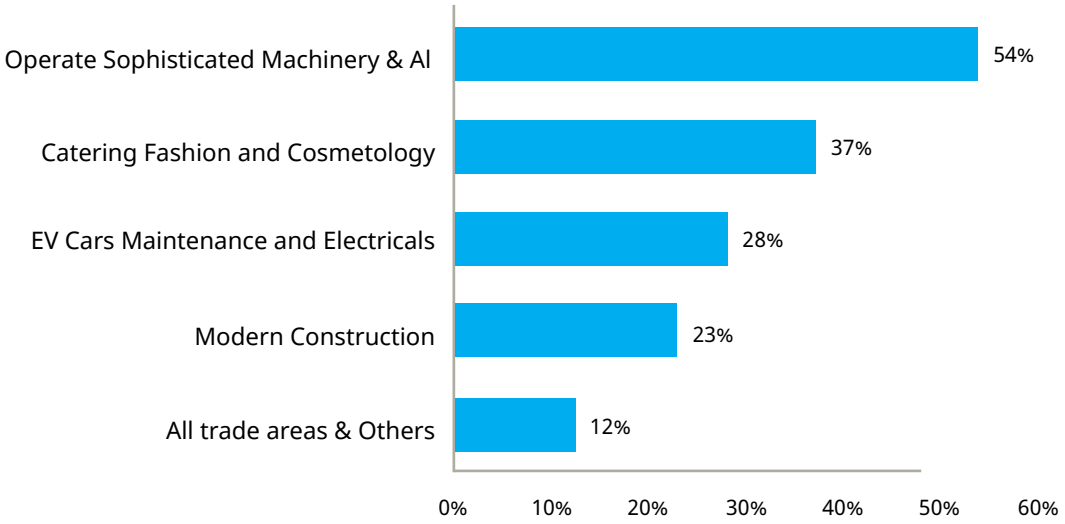


Graph 14: *Respondents' Feedback on Trainees' Negative Attitudes (%)*



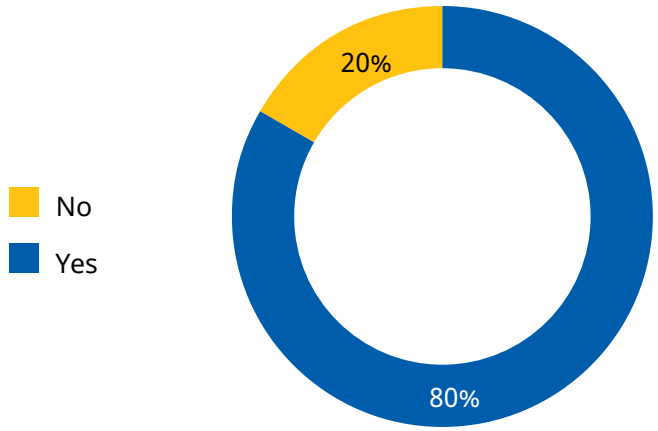
The most crucial skill for the next 5 to 10 years is operating advanced machinery and artificial intelligence (AI), identified by 54% of respondents. This reflects the growing importance of automation, robotics, and AI in industrial operations. Service-oriented industries like catering, fashion, and cosmetology follow closely, with 37% predicting strong demand in these fields. Additionally, 28% see a rising need for electric vehicle (EV) maintenance and electrical skills due to the shift toward electric mobility and sustainable energy. Modern construction, driven by smart cities and infrastructure development, is also expected to be important, with 23% recognizing it as a key skill. The remaining 12% highlighted the importance of diverse technical expertise across various trade areas.

Graph 15: *Future Skills Requirements*



Most institutions believe they can offer training for future skill requirements. Encouragingly, 80% of respondents believe that institutions are ready to deliver the necessary competencies to learners in emerging and high-demand trades, while only 20% disagree. This indicates the willingness of institutions to deliver their own mandate of training provision when provided with the necessary resources and support. However, this finding contradicts the previous one, in which limited infrastructure, including equipment, is one of the key challenges faced by most institutions, which has also contributed to their inability to be accredited to offer CBT programmes, but with the appropriate equipment they believe they can offer the needed training.

Graph 16: *Preparedness of Institutions to Train on Future Skills Requirements*



3.2.5.2. Past Trainees' Perception On TVET, Its Quality and Employability

Past trainees play a crucial role in evaluating the performance of TVET institutions, as they offer valuable insights into their perceptions of the training received and its relevance to the job market. Analysing this data reveals insights into trainee diversity and the distribution of various vocational disciplines, highlighting areas of strength and potential gaps in the training system.

46 past trainees completed the survey of which 52% identifying as male and 48% as female, suggesting that both genders are equally engaged in technical and vocational education. Most past trainees were within the 18-24 age group (50%), with 40% aged 25-35, and 10% over the age of 35. This age distribution reflects the diverse backgrounds of trainees, including both young learners and older individuals who have completed their training at different stages of life, offering a broad range of perspectives on their TVET training experience. 80% of past trainees completed their programmes between 2020 and 2025, while 20% graduated between 2003 and 2018. This provides a mix of recent graduate and their experience of transition into the workforce. The most popular trade areas among past trainees were catering, fashion, and cosmetology, with 51% of trainees enrolled in these fields followed by 38%, focused on engineering, construction, and carpentry. The remaining 11% of past trainees participated in other vocational disciplines.

44% of respondents shared that they made their enrolment decision independently, reflecting self-motivation and personal initiative in pursuing technical and

vocational training. However, 30% of respondents shared that they were encouraged by their parents, 22% influenced by other relatives, and 4% guided by respected community figures. This highlights the role of family and community support in educational decisions. Again, it could reflect a change in the mindset of individuals toward TVET. A trainee from Offinso Technical Institute remarked, "I have met several students who had good grades and are pursuing various courses at this school, contrary to what I was told: that TVET is for academically weak students."

TVET is vital in equipping individuals with practical skills to meet industry needs. The views surrounding TVET in the region reflect how well these institutions prepare learners for the job market. The survey focused on a comprehensive analysis of perceptions regarding the quality, relevance, and effectiveness of TVET programmes based on feedback from respondents.

Past graduates indicated that while TVET institutions generally align their curricula with industry needs and provide satisfactory work-based learning opportunities, there is a need for improvement in teaching methods and a significant resource gap in training materials. Respondents shared that TVET institutions generally align their curricula with industry needs, with an average rating of 4.2 for curriculum relevance and the usefulness of acquired skills in securing employment. However, respondents rated the quality of teaching methods at 3.9, suggesting room for improvement in pedagogical approaches. One of the main challenges identified by respondents is the lack of adequate training materials, with a rating of 3.1, indicating a resource gap that could hinder the quality of education. Industry placements and work-based experiential learning opportunities were rated at 4.0, suggesting that most institutions offer satisfactory exposure to real-world work environments.

Table 12: *Perceptions of TVET Provision in the Region*

Statements	Mean	Standard Deviation
The TVET curriculum and content were relevant in equipping you with the requisite skills to meet industry requirements	4.2	0.8
The skills and knowledge acquired are very useful in the labour market and contributed to your current employment situation	4.2	1.0
The training institute had the opportunity for private sector/ industry placements/WEL	4.0	1.0
The teaching and training pedagogy were adequate in equipping you with the requisite skills to meet industry requirements	3.9	0.9
The training institute had adequate materials to deliver quality TVET education to meet industry requirements	3.1	1.3

67% of graduates transition directly from training institutions to employment, emphasizing the role of TVET institutions in linking trainees with job opportunities. 33% rely on self-initiative or family support to start businesses or find jobs, while only 3% secure jobs through the WEL programme. Notably, 41% of graduates credit school recommendations for securing their current jobs, while 28% rely on personal networks, highlighting the importance of institutional support and community connections in the

employment process. Additionally, internships and work placements are seen as critical for gaining practical experience, with 82% of past trainees reporting participation. Those who participated in internships found them highly beneficial, with 95% indicating they gained valuable skills, while only 5% disagreed. This feedback emphasises the importance of hands-on training in enhancing career readiness.

The Ashanti Region is experiencing a significant influx of new workers. The largest share, 27%, has been employed for less than six months, indicating a significant influx of new entrants into the labour market. A notable 24% have been employed for more than five years, demonstrating long-term job stability. Similarly, another 24% have worked between two and five years, suggesting solid mid-term employment stability. Meanwhile, 12% have been employed for one to two years, and another 12% for six months to a year. These statistics emphasise the diversity in employment durations, with some individuals successfully maintaining long-term positions while others are engaged in shorter-term work. This distribution reflects a dynamic workforce characterized by a mix of individuals entering the job market, remaining in jobs for extended periods, or shifting between positions.

55% of the graduates are currently employed. However, 18% are still pursuing further education, demonstrating their commitment to advancing their studies to enhance their skills and qualifications. Meanwhile, 27% are still unemployed, emphasizing a group of graduates who are having difficulty finding work or are still in transition. The primary reason they provided for being unemployed was a lack of capital to start their own business.

61% of the employed past graduates' respondent are engaged in wage employment, while 39% have opted for self-employment. The latter highlights the importance of entrepreneurship among TVET graduates. Unemployed graduates cited financial constraints, lack of qualifications, limited job opportunities, and the need to acquire further skills as key barriers to employment.

Funding availability is a major barrier for graduates entering into self-employment. A lack of funding is cited as the primary barrier to self-employment for 50% of graduates, followed by a lack of tools (40%), and other challenges such as high material costs and long working hours. However, many reported waiting to mobilise capital for business ventures like salons or tailoring enterprises. This indicates a need for greater access to career guidance, funding, and training programmes.

98% of past trainees shared that they would recommend TVET as a viable educational path to their peers. This strong endorsement highlights the perceived value and effectiveness of TVET in providing learners with essential skills for employment or entrepreneurship.

3.2.5.3. Perspective of Ashanti's Parents & Guardians on TVET

Parents and guardians play a crucial role in shaping trainees' decisions to enrol in technical and vocational education. Their perceptions, level of engagement, and support significantly influence trainees' motivation, retention, and career prospects. Understanding their demographic characteristics and attitudes toward TVET provides valuable insights into how vocational education is accepted and supported within households in Ashanti region.

62 parents actively participate in the survey. 52% of parents and guardians are female, while 48% are male, reflecting a balanced involvement of both mothers and fathers. This balance suggests that vocational education is

widely accepted across genders, with parents recognizing its potential for skill acquisition and employment opportunities. In terms of age, a majority of parents and guardians are mature adults, with 73% over 35 years old, suggesting that they hold an established views on education and employment. The presence of 27% younger parents (ages 25 to 35) implies that TVET institutions also serve families with relatively younger children who regard vocational training as a viable career option.

Many parents and guardians have first-hand experience with TVET, either through their children currently enrolled in training programmes or those who have already completed their studies. Among surveyed parents, 64% have children who have completed TVET training, while 36% currently have children enrolled. This suggests that a significant number of parents have observed the outcomes of vocational training, influencing their perception of its effectiveness. The continued enrolment of children in TVET programmes also demonstrates ongoing trust in the system as a means of acquiring relevant skills for employment.

Course selection is largely influenced by awareness, interest in skill and perceived employability among those surveyed. Among areas of study, fashion technology and cosmetology emerge as the most popular choices, accounting for 44% of enrolments among both current and former trainees. Electricals and welding follow with 28%, while catering and hospitality management and building and construction technology each represent 13%. Computer hardware, however, sees the lowest enrolment, at just 3%. The strong interest in fashion and cosmetology indicates a high demand for creative and service-oriented skills, often linked to self-employment opportunities. The notable uptake in electricals and welding reflects the growing need for technical expertise in the industrial and construction sectors. On the other hand, the low participation in computer hardware may point to a need for increased awareness, improved infrastructure, or stronger industry incentives to encourage enrolment in digital and IT-related fields.

Parental influence plays a major role in trainees' decisions to enrol in TVET institutions. Data indicates that 78% of trainees were encouraged by their parents or guardians, while 20% made the decision independently, and 2% were influenced by other relatives. This however, contradicts the same question responded by past trainees where **44% of respondents shared that they made their enrolment decision independently.** This emphasises the significant role that families play in vocational training choices. However, this contrasts with the responses from learners themselves, as many claim they independently decided to pursue vocational education. This discrepancy suggests that while trainees perceive their decisions as self-driven, parental encouragement remains a decisive factor in their educational choices.

The motivation behind parents' support for TVET enrolment is largely driven by employment prospects and skills acquisition. An equal proportion - 46% - cite the ability to gain practical technical skills and the potential for securing employment as key reasons for encouraging their children to enrol in TVET. An additional 8% mention other reasons, such as affordability or family traditions in specific trades. This reinforces the perception of TVET as not only a training platform but also a pathway to economic opportunities. Parents recognise both the practical skills gained and the employment potential, highlighting the importance of vocational education in preparing trainees for the workforce.

While many parents and guardians have a positive perception of TVET institutions, some concerns remain regarding infrastructure, teaching materials, and faculty competence. When asked whether TVET institutions have adequate resources to equip trainees with job-market skills, 63% agreed, while 37% expressed concerns. Those who raised concerns believe that improvements in infrastructure, teaching resources, and

industry relevance are necessary to enhance the quality of training. Strengthening these areas through policy reforms, investments, and stronger industry collaborations can further boost parental confidence in the effectiveness of TVET programmes.

A significant number of TVET graduates successfully find employment, reinforcing the credibility of vocational education as a job-preparation tool. Among parents and guardians, 39% report that their children are currently employed, demonstrating that TVET equips graduates with job-ready skills. Additionally, 36% of graduates have chosen to further their education, indicating that TVET also serves as a stepping stone for advanced learning and professional development. However, 25% of graduates interviewed remained unemployed, highlighting the need for stronger job placement programmes and better industry partnerships to enhance employment opportunities. The 25% reflects the situation of Not in Employment, Not in Education, Not in Training (NEET). The NEET concept describes the status of a specific cohort of school-leaving youth or graduates. For instance, national data suggests that 55% of graduates from Junior High School (JHS), aged between 14 and 16, proceed to Senior High School (SHS), while 12% move on to Technical and Vocational Schools. Of the remaining 23%, it is estimated that 10% will secure employment and 13% will fall into the NEET category. Similarly, 49% of SHS graduates aged between 17 and 19 will continue to tertiary education, 20% will enter the job market, and 31% will be NEET.

Parental perception and engagement are crucial in shaping the success of vocational education. When parents actively support and value TVET, trainees are more likely to enrol, stay motivated, and complete their training. Their involvement in decision-making, financial support, and encouragement plays a significant role in trainees' academic and career journeys. Addressing parental concerns, improving awareness about TVET's benefits, and strengthening job placement initiatives can enhance the overall perception and effectiveness of vocational training. By fostering deeper engagement from parents and guardians, TVET institutions can further solidify their role in providing practical skills, employment opportunities, and career growth for learners.

3.3. INFORMAL SKILLS DEVELOPMENT IN THE ASHANTI REGION

Informal Apprenticeship Training (IAT) is the most significant skills development system in the Ashanti Region, serving a large number of youths. The informal sector in Ghana is recognised for providing various training opportunities for the youth, serving as the largest training platform and offering about 80% of all training.[30]

Organised primarily through the traditional apprenticeship model, it offers enterprise-based training. This training model, led by Master Craft Persons (MCPs), is the primary means of skill acquisition for young entrants into the labour market across the region.[31] It is also the most accessible form of skill development, as MCPs in the Ashanti Region have long trained apprentices through informal apprenticeships, a system found throughout Ghana.

The Ghana TVET Service has a unit dedicated to the informal sector. However, despite the broad informal sector, only seven trade and professional associations have registered with the TVET Directorate.[32] Informal training is typically structured around businesses where owners, acting as MCPs, pass on their skills to the next generation. These businesses are often grouped into trade associations for easier identification and collaboration.

The "Suame Magazine" phenomenon has evolved into the largest centre for Informal Apprenticeship Training in Ghana. Suame Magazine, located in the Ashanti Region, is one of the largest informal sector hubs in both Ghana and Africa. The area is industrialised and home to numerous workshops specializing in metal engineering and vehicle repairs, employing an estimated 200,000 workers. Suame Magazine is the most industrialise d zone in Ghana and one of the largest in Africa. The micro and small enterprises (MSEs) here are renowned for their contributions to engineering, industry, and agriculture. Their work extends beyond Ghana, benefiting neighbouring countries such as Burkina Faso, Togo, Mali, and Ivory Coast, who rely on the region for services in vehicle maintenance, agro-processing machinery manufacturing, and agricultural tool production.[33] Beyond Suame Magazine, other artisanal sectors also offer youth training in various trades.

[30] A Review of Apprenticeship Policies in Ghana, Naa Omai Sawyer, International Journal of Innovative and Research Development, October 2023

[31] A Capability Approach to the Well-Being of Informal Apprentices and Journeypersons in the Automotive Trade in Ghana, Joyceline Alla Mensah, 2020

[32] These are fashion represented by these groups (Ghana National Association of Tailors & Dressmakers, Garment Association of Ghana, Cooperative Fashion Designers Association, Ghana Association of Beautiful Designers), Cosmetology(National Association of Hairdressers & Beauticians, Ghana Hairdressers and Beauticians Association, Hairdressers and Beauticians Association of Ghana, Consecutive Hairdressers Association of Ghana, Progressive Hairdressers Association of Ghana, United Hairdressers Association of Ghana), Ghana Association of Barbering Salon Owners, Garages Association of Ghana, Vulcanisers Association of Ghana, Aluminium Glaziers Association of Ghana, Electrical Contractors Association of Ghana.

[33] What Makes Us Different? History & Background of Suame Magazine

The study covered 10 different trades, interviewing 16 MCPs.

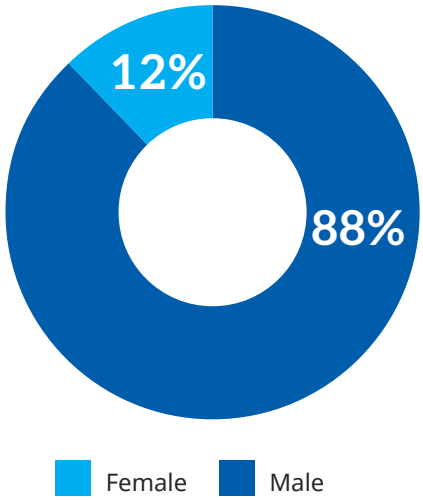
Table 13: *List of MCPs Interviewed Based on Trades*

Enterprises/Trades	No. Interviewed
Aluminum glazing	2
Auto mechanic	1
Barbering professionals	1
Fashion Designing	3
Furniture and woodworks	1
Hairdressing, cosmetology and decoration	2
House wiring, security fencing, solar installation, CCTV Camera installation	1
Plumbing	1
Vulcanizing	1
Welding and Fabrication	3

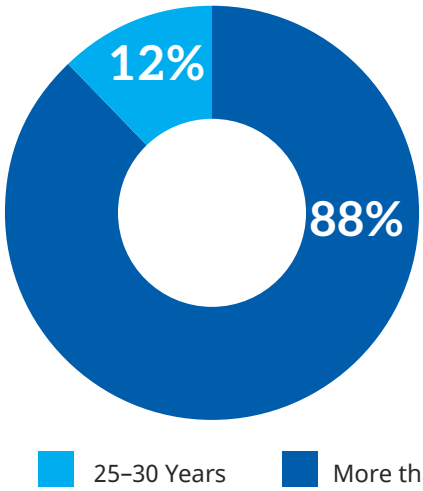
The informal sector is male-dominated, particularly in technical fields. Of the interviewees, 88% were male, and 12% were female, reflecting broader labour market trends where certain industries, especially technical ones, have low female participation.

Most of the respondents (88%) were over 35 years old, with 12% aged 25-35. The majority (63%) of the businesses had been operating for over 10 years, demonstrating a high level of experience in the sector. Only 6% of the businesses had been running for 1-3 years, suggesting a stable but potentially difficult market for new entrepreneurs due to barriers like capital requirements and limited mentorship.

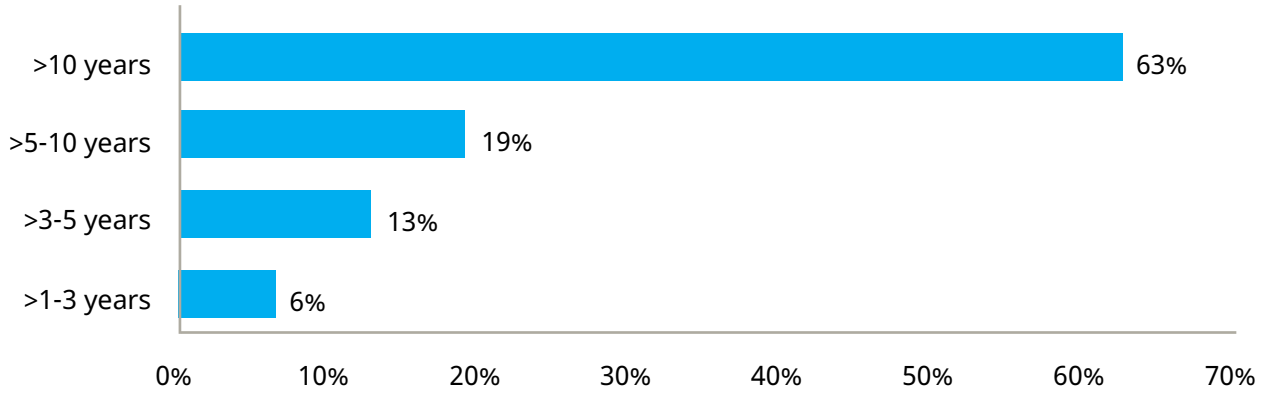
Graph 17: *Gender Distribution MCPs Interviewed*



Graph 18: *Age Group of Respondents*



Graph 19: *Number of Years of Experience of the Master Craft Persons*



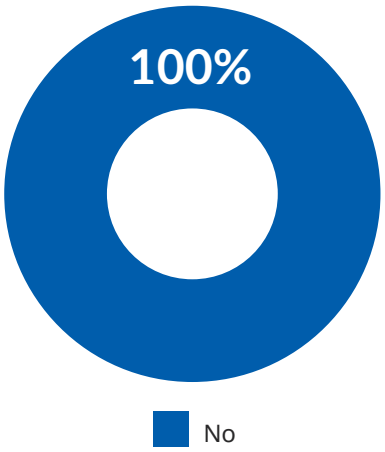
Over a third of the MCPs had less than a secondary school education. Despite this, many demonstrated high levels of proficiency in their crafts. Educational qualifications of the MCPs were as follows: 31% had tertiary-level education, 31% had secondary education, and 38% had qualifications lower than secondary education. This mix of formal education and practical experience enables them to train apprentices effectively.

Table 14: *Educational Level of the MCPs*

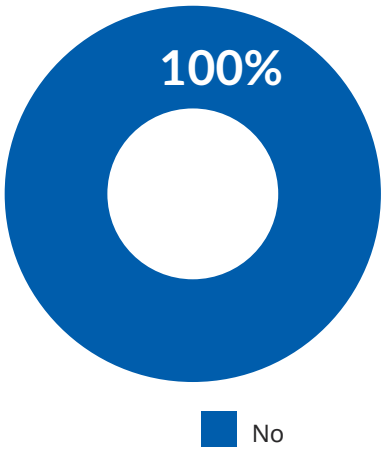
S/N	Educational level	Frequency
1	Proficiency II	4
2	SSCE/WASSCE Certificate	3
3	B.Tech.	2
4	BSc Mechanical Technology Education	2
5	BECE	1
6	HN Diploma	1
7	JHS	1
8	Middle school	1
9	Nat. Cert II	1

Training programmes offered by MCPs are typically unstructured, following traditional knowledge-sharing methods. These programmes are not accredited by national or regional authorities, and no formal curriculum is used in most cases. This lack of formal structure means training quality can vary, and there is no standard assessment or certification. All respondents (100%) indicated that they do not use a formal curriculum and are not registered with any formal organizations. This could be the case of the sample; otherwise, there are a number of MCPs who are registered with CTVET for the voucher project, and they have been certified as CBT facilitators after their capacities are built.

Graph 20: *Usage of Formal Curriculum*



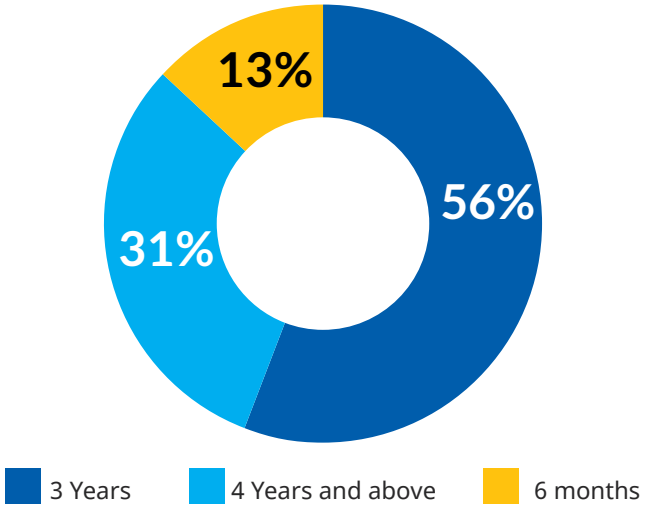
Graph 21: *Accreditation From Relevant Authorities*



The training durations vary significantly. While most MCPs offer programmes lasting 3-4 years (56%), 31% offer training lasting four years or more, and 13% provide shorter six-month programmes. These trades are primarily dressmaking, garment construction, hairdressing, and cosmetology.

Upon completing their training, apprentices may receive a certificate from the trade association or MCP with their business registration.

Graph 22: *Duration of Training Delivery*



The MCPs perform graduation ceremonies to symbolize the apprentice or the learner's completion of the training programme. Before issuing certification, a graduation or exit ceremony occurs where the MCPs officially declares the apprentices qualified to start their own businesses. In some cases, enterprises issue their own certificates based on business registration; other enterprises provide certificates under the authority of the trade association, while a few offer testimonials to their graduates. Graduates may register with the TVET Service for assessment, after which a proficiency certificate is issued to recognise their training officially.[34] Interestingly, all the master trainers interviewed did not use any approved curriculum, yet they could be certified by the TVET Service at the end of training. This demonstrates a practical example of the Recognition of Prior Learning (RPL) policy.

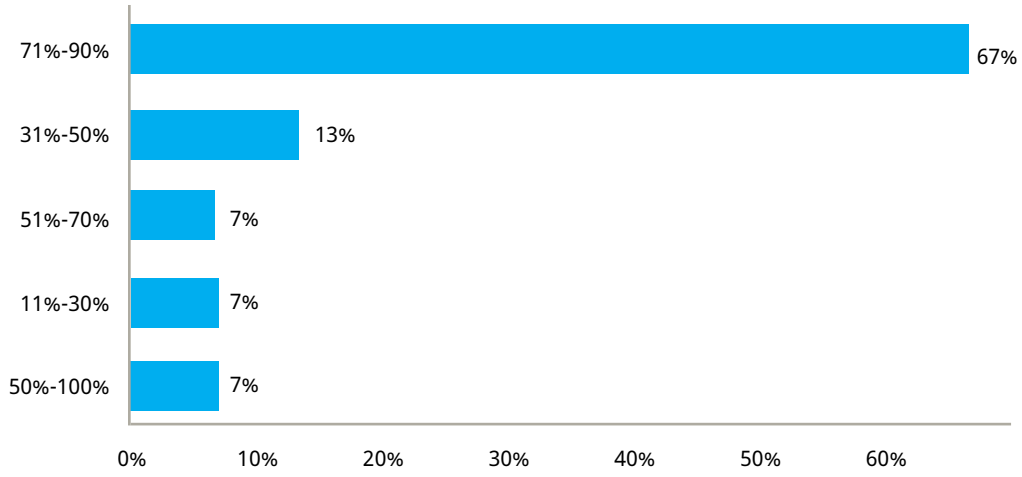
[34] Many apprentices or trainees do not apply for RPL due to fees to be paid, bureaucratic processes and issues of non-enforcement.

Recognition of Prior Learning (RPL) refers to the acknowledgment of an individual's skills and knowledge gained through prior training, work, or life experiences, which can be utilized to grant status or credit in a unit or cluster of unit competencies.[35] The process requires the applicant to collect and present evidence that allows an assessor panel to evaluate their qualifications against the requirements of one or more units of competence or modules. The judgment is based on the evidence provided by the applicant, showcasing the skills and knowledge previously acquired through work, study, life, and other experiences. It is important to note that to be eligible for RPL, and applicants must provide evidence of current competence rather than merely claim they possess a current certificate or qualification. Candidates must demonstrate that the evidence submitted is their own work to ensure the success of thWe RPL application. This may require obtaining third-party confirmation to authenticate their work.

An individual who wishes to his/her skills formally recognized shall approach a TVET institution and apply for Recognition of Prior Learning (RPL) by completing a form. They must provide evidence of their previous skills and knowledge. The TI or RPL team will evaluate the application and schedule it for an assessment, where practical evidence will be gathered, where possible. Upon successful completion, a certificate is awarded. If unsuccessful, the individual will be required to pursue additional training with the identified training institution (TI) or participate in workplace training.

The majority of businesses (88%) employ fewer than three workers, indicating small-scale operations. Most graduates become self-employed after completing their training programmes. Employment outcomes for graduates are promising, with 67% of MCPs reporting that between 71% and 90% of their graduates have launched their own businesses. This highlights the preparedness and exposure these new labour market entrants have gained through their training in a business or enterprise environment, enhancing their confidence to start independently. At this point, it would be beneficial to connect with TIs that offer entrepreneurship training programs, as well as literacy and numeracy instruction, as part of the 21st-century skills package essential for business performance. This concept is currently being piloted as part of the voucher project. However, a significant 13% report lower employment rates (31%-50%), and a smaller percentage (7%) indicates an even lower level of employment success. These individuals may lack the necessary capital or resources to establish businesses on their own.

Graph 23: *Employment Status of Graduates*



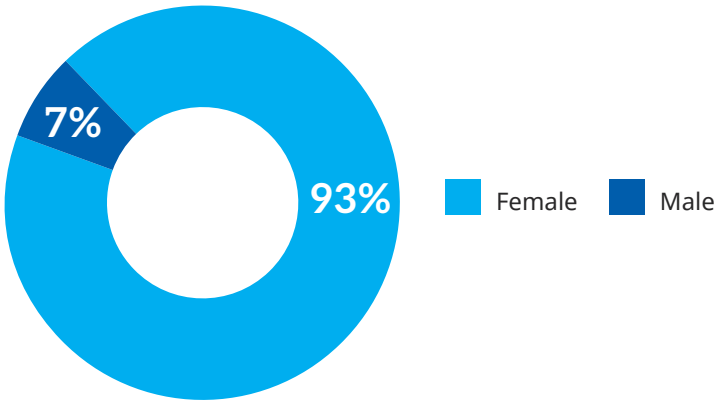
[35] Caribbean Association of National Training Agencies (CANTA).

Respondents expressed the high cost of capital to begin a venture in the modern economy. This involves acquiring land or renting a shop to begin one's business. Since location is an important factor in business success, most graduates would like to acquire spaces in the central business areas for more visibility, which is very costly.

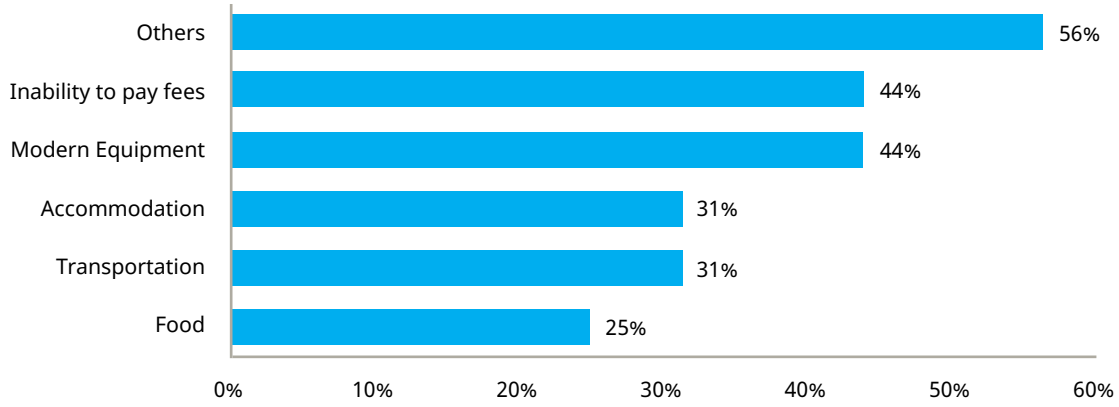
Most MCPs function as both employers and training providers. A striking feature of the informal sector is its dual role as both an employer and a training provider. The workforce size remains small, with 88% of businesses employing fewer than three workers. This suggests that operations are often lean, likely consisting of family-run or self-sustaining enterprises. Only 12% of businesses have between five and eight workers, indicating limited scalability. Despite these small teams, businesses are actively engaged in skills development, as seen in their training efforts.

There is a general satisfaction with the training outcomes of the apprentices. The findings indicate a generally positive perception of apprenticeship programmes, with 93% of trainers expressing satisfaction with their graduates' performance. This is however, from the perspective of the MCP. An objective evaluation can be obtained through an assessment conducted by the TI for the recognition of learning at the enterprise. However, a small fraction (7%) remains dissatisfied, underscoring potential areas for improvement in training methodologies or apprentice selection.

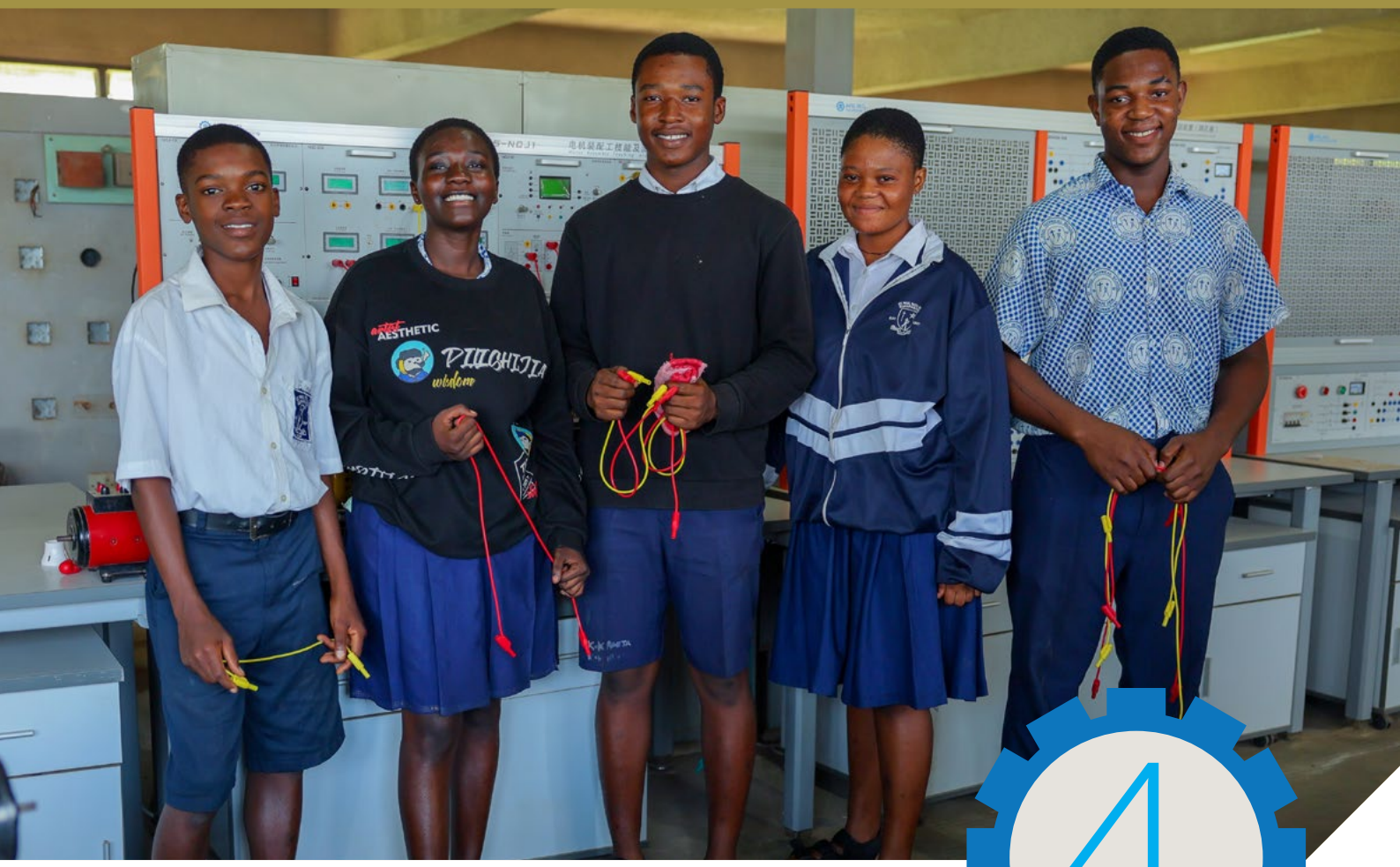
Graph 24: *Level of Satisfaction of Training Programme*



Graph 25: *Challenges of the Apprenticeship*



[34] It is a custom in Ghana to pay a fee for apprenticeship. Most of the time if one is unable to settle this fees, they are not officially graduate. Apprenticeship fees paid in full induces the blessings of the MCP at the point of graduation. If an apprentice leaves without paying a fee to the MCP s/he does not attract the goodwill of the trainer. An MCP can decide to waive the apprenticeship fees based on humanitarian grounds if they observe the learners are unable to settle the bill dues to their poor backgrounds and deprived state.



4

ASHANTI REGION EMPLOYERS AND THEIR PRACTICES

4.1. OVERVIEW OF DEMAND SURVEY – EMPLOYERS' PROFILE

The demand-side operations of the TVET landscape involve private and public employers offering opportunities to TVET-trained personnel. Businesses in Ghana may be grouped as per the Ghana Enterprises Agency (Classification of Micro Small Medium Enterprises) Regulations, 2023, into 4 categories:[37] micro, small enterprises, medium and large based on employment size, turn over and fixed assets.

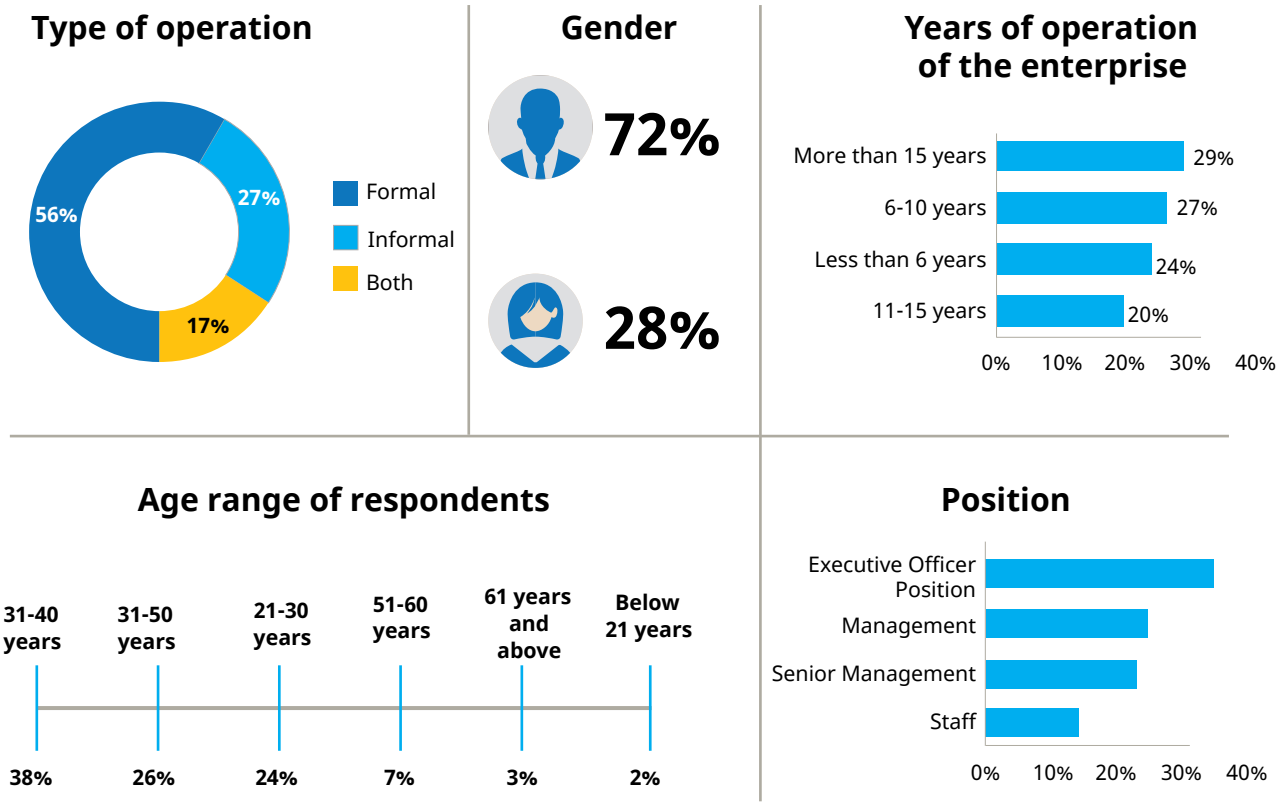
Our research mostly surveyed businesses operating in the formal sector and informal sector. The data reveals that out of the total of 316 enterprises surveyed majority of these enterprises operate in a formal setting, accounting for 52% of all businesses, while 27% remain informal. Majority of the enterprises have been in existence for more than 15

[37] Ghana Enterprises Agency. (2024). Classification of Micro, Small and Medium Enterprises Regulations, 2023. Ghana Enterprises Agency

years (29%). Others have been in business for 6–10 years (27%), 11–15 years (20%), and less than 6 years (24%). Additionally, 96% of the enterprises were domestically owned, with the majority operating as sole proprietorships (68%), followed by private limited companies (19%) and partnerships (8%). Only 1% of these enterprises were either state-owned or foreign subsidiaries.

The respondents to the survey were mostly executive males in their 30s. Gender distribution showed that males constituted 72% of the participants surveyed while 28% represented females. The majority of the respondents fall within 31–40 years (38%) and 41–50 years (26%), followed by 21–30 years (24%). Older age groups (51–60 years at 7% and above 61 years at 3%) had lower representation. The distribution of the respondents' positions showed that 36% were executive officers, 25% were in management, 24% were in senior management, and 15% were in staff.

Graph 26: *General Demographic Characteristics of Enterprises Surveyed*



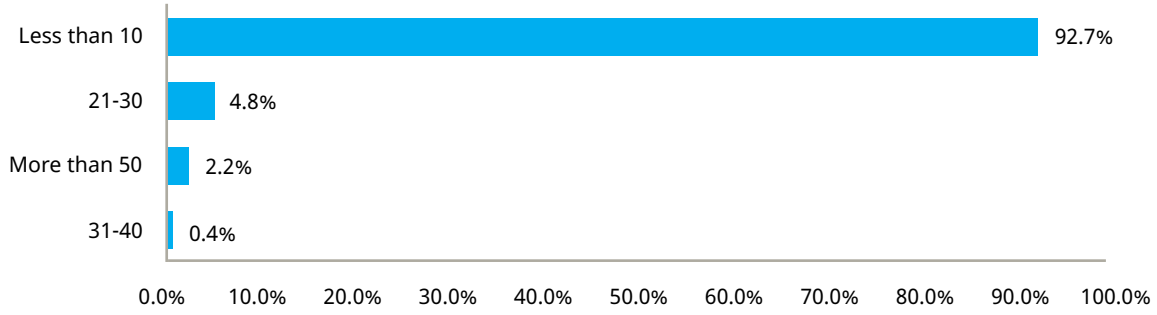
4.2. ORGANISATIONAL PRACTICES AND CHALLENGES AMONG SURVEYED ENTERPRISES

Following are some of the key trends among the enterprises surveyed and their engagement with TIs:

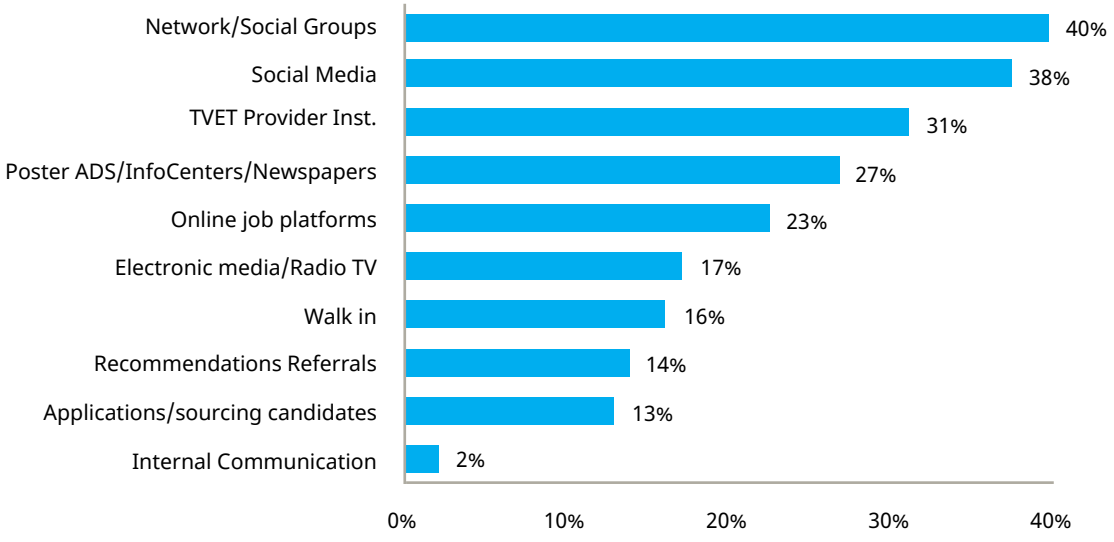
The majority of enterprises employ fewer than ten persons each year. The data suggests that 92.7% of enterprises employ fewer than 10 personnel annually. However, about five percent (4.8%) of these enterprises have between 21 and 30 personnel annually. Additionally, on average, the enterprises included in this survey had ten male employees and five female employees. On a median basis, these enterprises have five female employees and three male employees. Some enterprises reported that they have not yet hired personnel of both genders.

Networking, social groups, and social media are the most effective methods for recruiting staff for the establishments with TVET institutions being a key source of talent. Recruitment methods vary, with networking and social groups being the most commonly used approach (40%), followed closely by social media (38%). Traditional methods, such as newspaper ads and referrals, remain relevant but are less prominent. Additionally, businesses frequently recruit from TVET institutions, with 31% of companies acknowledging these sources as essential for staff acquisition.

Graph 27: *Number Employed Annually*



Graph 28: *Methods of Recruitment*



Most employees in the region have permanent employment in their organisations, however this does not guarantee job security as few of them have contracts to back this permanent engagement. The workforce distribution by employment category shows that permanent employment is the most common, with 238 males and 196 females in permanent positions. Fixed-term contracts, casual labour, and part-time work play a significant role in overall male and female employment.

Most employers have not entered into employment contracts with their employees; however, many establishments have written policies regarding employee welfare. Employment contracts are not universally applied, as 52% of enterprises report not providing written agreements. Nevertheless, many businesses have policies specifically designed for female employees (63%), including maternity leave (80%), separate washroom facilities (72%), accommodations (27%), leave intake (23%), increased intake (20%), and prohibitions on overtime (11%).

Table 15: *Employment Category*

	Reasons for lack of CBT Accreditation	Frequency	Percentage
1.	Permanent	238	196
2.	Fixed term contract	106	77
3.	Casual	90	61
4.	Part-time	85	62

Graph 29: *Contract Situation of Companies*

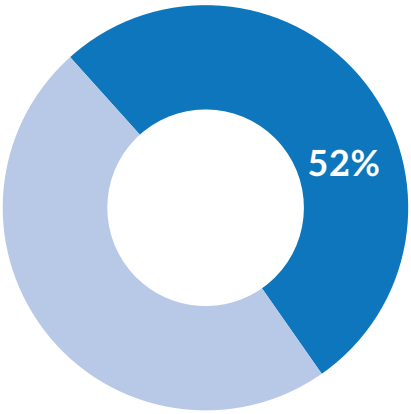


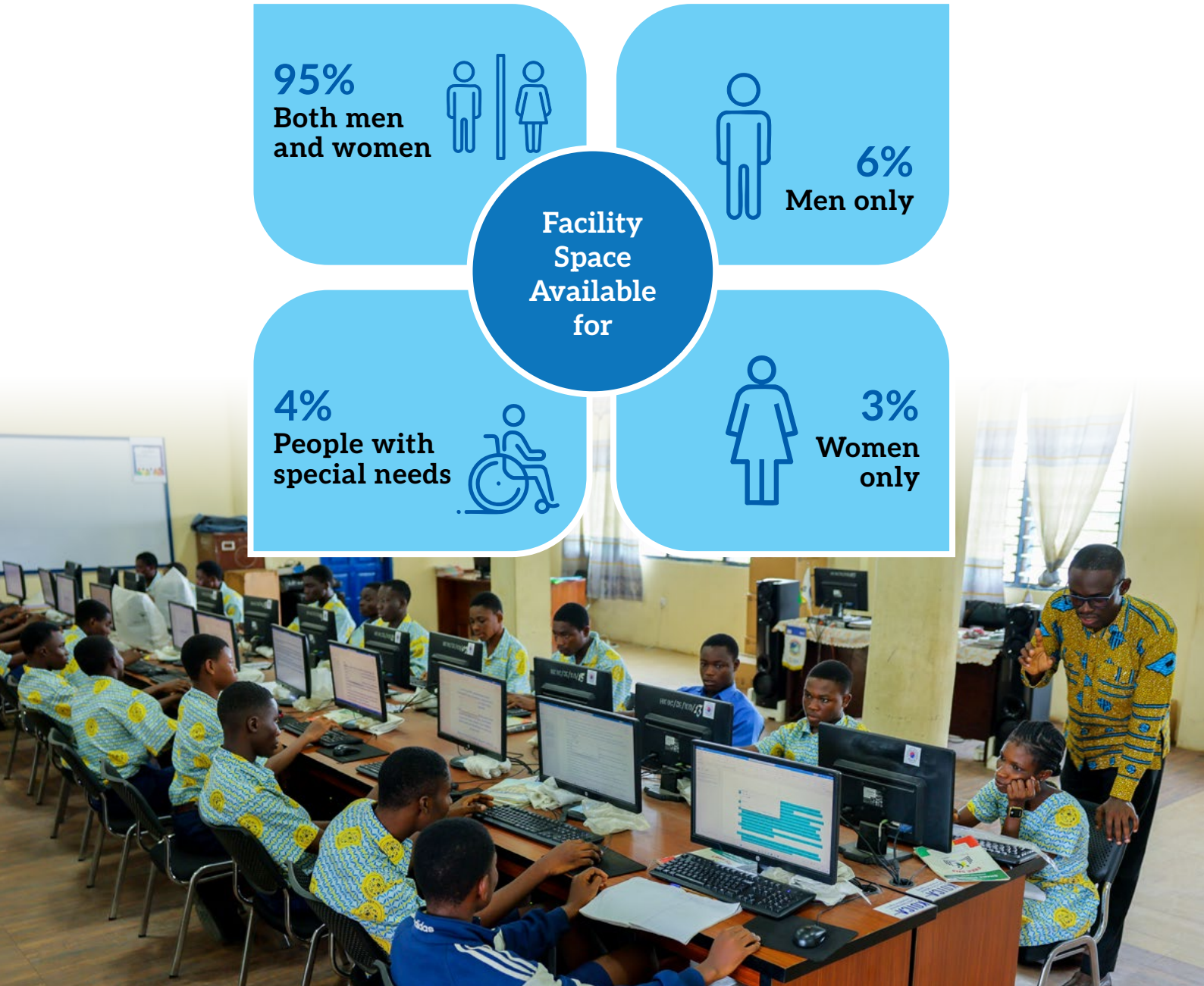
Figure 2: *Employer Internal Policies*

Most facilities (95%) at the enterprises are inclusive for both genders, demonstrating a strong commitment to gender-neutral spaces. Men-only (6%) spaces outnumber women-only (3%) spaces, indicating industry-specific gender disparities. Only 4% of facilities cater to people with special needs, which is a concern for accessibility and inclusivity efforts. The data suggests a need for more efforts in gender-specific and disability-inclusive spaces to promote equal access for all.

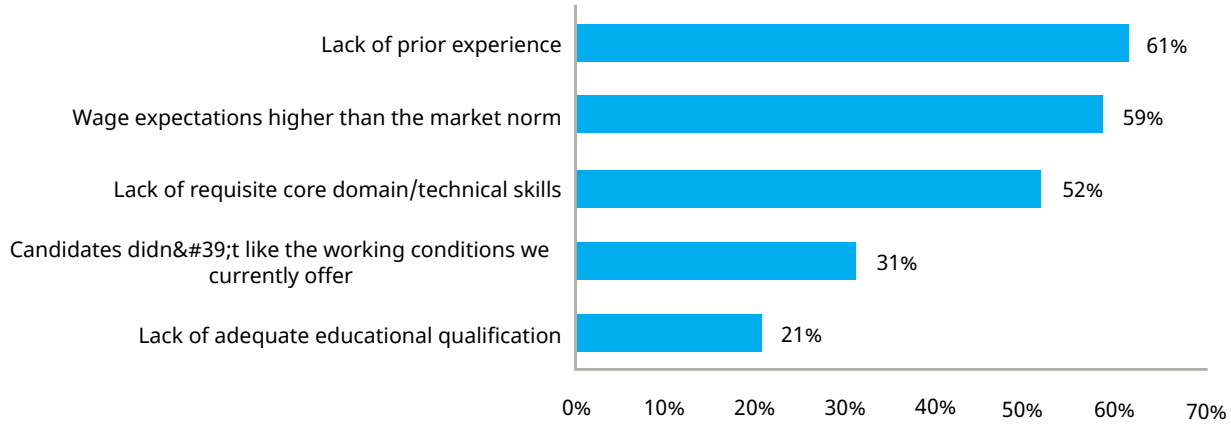
Employers face significant hurdles in recruiting suitable candidates, including a lack of experience, high wage expectations, and limited technical skills. Responses show that the main challenges employers encounter when recruiting suitable candidates include a lack of experience (61%), elevated salary expectations (59%), and a lack of essential technical skills (52%). However, this contradicts the finding from the learners' perspective, suggesting they are well-trained to enter wage employment.

Furthermore, unfavourable working conditions and inadequate educational qualifications add to the difficulties in hiring. This complements a key finding from the supply side of this study, which concludes that the TVET system does not provide graduates with the necessary technical qualifications. These gaps, as expressed by the industry, must be addressed by the TVET institutions to make their graduates more attractive to the industry.

Figure 3: *Organisational Inclusiveness*



Graph 30: *Main Challenges Impeding the Recruitment of Potential Employees*



Creating strong job descriptions and leveraging employee referrals and social media are the three most effective recruitment strategies when they are jointly used. To enhance recruitment effectiveness, businesses use various strategies. Based on the analysis, the following approaches are ranked in order of effectiveness. The high mean scores indicate that business' view creating effective job descriptions and leveraging employee referrals as the most effective recruitment strategies. Although widely utilized, social media has a relatively lower effectiveness rating, suggesting that traditional methods, such as referrals and structured job descriptions, still play a vital role in hiring. The most effective recruitment strategies include crafting well-defined job descriptions and utilizing employee referrals, which ensure that candidates align with job expectations.

While social media recruitment is prevalent, it is considered more effective than traditional methods, indicating that digital hiring always attract the best talents. This means that industries need to strengthen their Human Resource (HR) departments to create quality job descriptions that can attract the best talent. However, the same cannot be guaranteed for informal sector players, including MCP. It is crucial to encourage MCPs to outsource the tasks of creating standard job descriptions to external individuals or consulting human resource recruitment firms to assist their recruitment processes. Meanwhile, it is recommended that, a project with the focus of building the capacity of informal businesses and MCPs could be developed to enhance their ability to conduct such recruitment activities in-house as a cost effective and sustainable strategy.

Table 16: *Strategies for Recruitment Effectiveness*

	Statements	Mean	Standard Deviation
1.	Creating an effective job description	3.98	0.74
2.	Utilize employee referrals	3.97	0.70
3.	Be proactive and creative in your job advertising	3.85	0.82
4.	Offer competitive salaries and benefits packages	3.75	0.85
5.	Get qualified candidates to try out a contract position at your company	3.71	0.90
6.	Leverage your company's social media accounts for recruitment processes	3.59	0.98

4.3. EMPLOYER PERCEPTION ON TVET QUALITY, RELEVANCE, DELIVERY AND WEL

4.3.1. EMPLOYERS' PERCEPTION ON TVET QUALITY AND RELEVANCE

Employers (both formal and informal) have identified significant gaps in TVET graduates' preparedness for the workforce, particularly regarding attitudes, self-discipline, and practical skills. However, this contradicts the finding from the learners' perspective, suggesting they are well-trained to enter wage employment.

There is also a pressing need to integrate more up-to-date technological knowledge and practical training into TVET programmes to align them with industry advancements. A typical example is the use of hand sewing machines in the training of learners in most TVET Institutions, as against the use of electrical and sophisticated sewing machines by industries. This presents a gap for learners from such TVET institutions during WEL and early stages of employment. This is an indication of the less availability of equipped workshops in the public TVET schools. Other trades including auto mechanics have obsolete learning equipment such as old engines that are outdated in the automobile industry. However, the private TVET schools have a comparatively better equipped workshops in the trades they offer.

To understand the current state of TVET education, a Likert scale was used, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with mean scores calculated to determine how easily specific roles are filled by TVET graduates. A higher mean score suggests that employers find it easier to fill these roles, while a lower score indicates difficulty. The results provide insight into the effectiveness of TVET institutions in meeting industry skill needs.

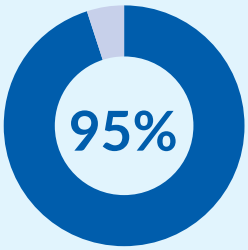
While TVET education is considered to meet employer needs to some extent (mean score of 3.54), there are notable shortcomings in the areas of practical application, technological knowledge, and professional attitudes. The lowest-rated item (2.19) indicates that many TVET graduates lack the essential self-discipline and attitudes necessary for workplace success. The need for improved practical training (2.48) and updated technological knowledge (2.62) is also apparent.

Table 17: *Quality of TVET Delivery*

	Quality of TVET Education	Mean	Standard Deviation
1.	Meets the skill needs of employers adequately	3.54	0.98
2.	Does not produce enough people with the level of skills needed by employers	2.63	1.07
3.	Does not produce enough people with up-to-date knowledge of methods, materials, and technology	2.62	1.12
4.	Does not produce enough people with practical skills	2.48	1.07
5.	Does not produce enough people with good attitudes and self-discipline	2.19	1.00

Enterprises are strongly willing to collaborate with TVET providers. A significant 95% of enterprises are open to sharing their contact information with TVET institutions. This high level of support suggests that businesses recognise the value of direct engagement with training providers to facilitate smoother and more effective trainee placements.

Graph 31: *Willingness of Enterprises to Collaborate With TIs*



By sharing their contact details, enterprises facilitate better coordination with TVET institutions, ensuring that trainees with the necessary skills are matched with relevant workplace opportunities. This proactive approach benefits both parties: TVET institutions can receive direct feedback on industry needs and adjust curricula accordingly, while enterprises gain access to a more skilled and job-ready workforce. Such collaboration is crucial for addressing skill gaps, enhancing the employability of graduates, and fostering a smoother transition from education to employment. The strong consensus among enterprises further reinforces the idea that industry-academia partnerships are vital for improving workforce readiness and ensuring that interns and new hires are well-prepared for workplace demands.

The perception of TVET provisions reveals mixed sentiments. On the positive side, TVET is widely regarded as essential for economic growth, with a strong mean score of 4.38, indicating that many believe it plays a crucial role in supplying a skilled workforce. Additionally, there is recognition that TVET provides opportunities for persons with disabilities (PWDs), as reflected in a mean score of 3.69, which suggests inclusivity. The good news is that industries do not discriminate against PWDs during recruitment of TVET graduates. However, the same cannot be said for MCPs, as there are no facilities to accommodate and ensure the safety and well-being of PWDs. However, during the visit to Jachie Special Technical Institute for Persons with Learning Disability, which is the only TI dedicated to PWD, relevant facilities were available for the training of PWDs. Some of the workshops included an orthopaedic workshop, a mat and belt workshop.

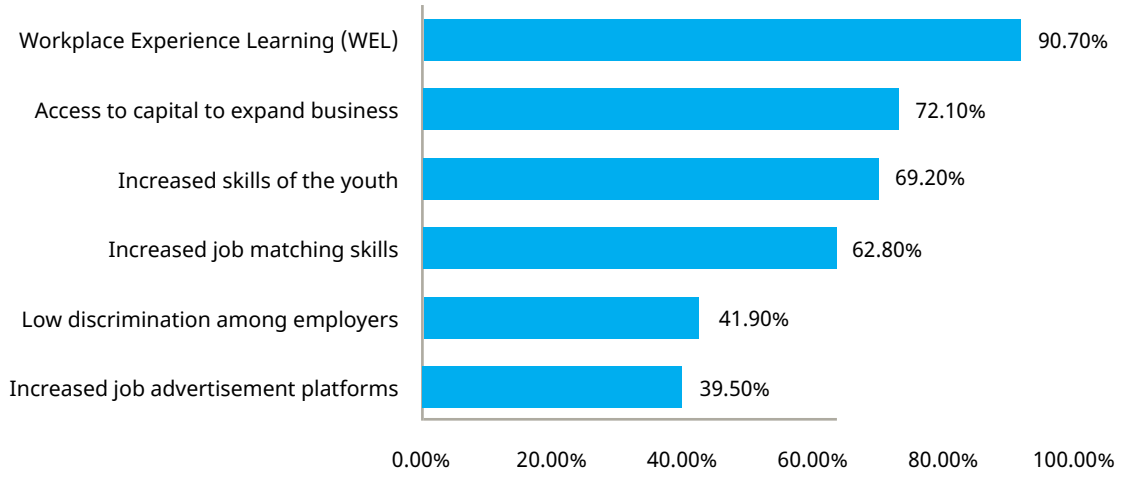
However, there are notable concerns. Public ignorance about TVET remains high (3.50), and societal recognition of TVET is relatively low (3.36). Gender disparity is evident, with males showing a higher interest than females (3.49). Moreover, parental socioeconomic status significantly influences whether someone chooses TVET (3.35), which may indicate barriers related to affordability (3.32). Some negative stereotypes persist, such as the belief that TVET is mainly for those with self-confidence and entrepreneurial skills (3.39) or for less intelligent individuals (3.00). Additionally, TVET is perceived to have lower job prestige (2.69) and to cater more to urban populations than rural ones (2.73).

Table 18: *Perceptions of TVET provisions*

	Statements	Mean	Standard Deviation
1.	TVET is very important in providing the needed workforce for economic growth	4.38	0.59
2.	TVET provides opportunities for PWDs and special needs	3.69	0.94
3.	High public ignorance of TVET	3.50	1.14
4.	Male have higher interest toward TVET than females	3.49	1.25
5.	TVET is for those who have self-confidence and can become an entrepreneur	3.39	1.16
6.	TVET has Lower societal recognition	3.36	1.20
7.	Parental socioeconomic status is a significant factor in the choice of TVET	3.35	1.15
8.	TVET is expensive to afford	3.32	1.26
9.	TVET provides opportunities for less intelligent people	3.00	1.21
10.	TVET works with people from urban areas than rural areas	2.73	1.20
11.	TVET has lower job prestige	2.69	1.10
12.	TVET only gives you self-employment skills	2.55	1.17

To improve TVET's reputation and effectiveness, several strategies are vital, including enhanced Workplace Experience Learning (WEL) (90.7% support), access to capital for new businesses (72.1%), continuous skill development (69.2%), better job matching (62.8%), and reduced discrimination in the workplace (41.9%).

Graph 32: *Strategy to Improve TVET Perception*

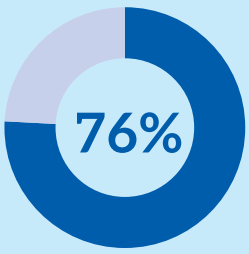


4.3.2. EMPLOYERS' AND WEL ENGAGEMENTS

There are established structures that support collaboration between TVET institutions and employers, allowing learners to gain workplace experience. The survey sought to understand the involvement of employers in WEL, including their experiences with internship programmes, training facilities, qualifications sought in interns, and strategies for assessing intern performance.

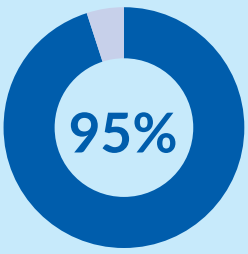
The data reveals that 76% of enterprises have previously collaborated with TVET institutions, demonstrating strong employer engagement with TVET programmes. This collaboration emphasises the importance of real-world learning experiences in preparing trainees for the labour market. However, 24% of businesses have not engaged with TVET institutions, highlighting an opportunity to increase participation and collaboration.

Graph 33: *Enterprises Previously Engaged with TVET Institutions and Workplace Experience Learning (WEL)*



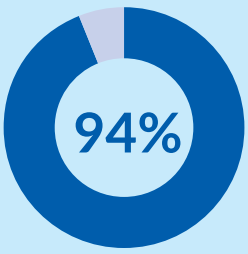
A large majority (95%) of enterprises have the readiness to provide practical training for WEL interns, indicating that businesses recognise the importance of hands-on skill development. This high level of readiness contrasts with the 76% actual engagement rate, suggesting that there is room to improve participation and integration of WEL programmes. Addressing barriers to full engagement can further enhance workforce readiness and offer more opportunities for practical skills development.

Graph 34: *Capacity for Involvement in WEL*



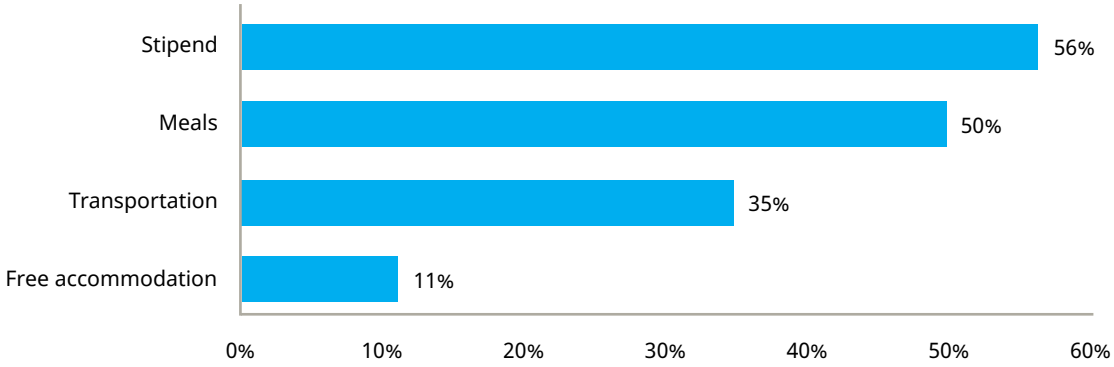
The ability to assess WEL interns is crucial to ensuring the effectiveness of workplace learning. 94% of formal and informal enterprises have staff who are trained and certified as Assessors by the Commission for TVET, suggesting a strong alignment between industry practices and standardised vocational education. The remaining 6% may face challenges in developing the necessary capacity to assess interns effectively, signalling an area where additional training or resources could be beneficial. This is an important finding to spur on the TVET institutions to keep training more enterprises and extend to MCPs to accommodate more learners for WEL.

Graph 35: *Capacity to Assess WEL Learners*



Enterprises offer various types of support and incentives to encourage WEL interns. Among the most common incentives, stipends are the most prominent, with 56% of businesses providing financial compensation to interns. Meals are also a common benefit, provided by 50% of businesses, helping ease financial strain. Transportation support is offered by 35% of enterprises, while only 11% provide free accommodation, suggesting that housing may be a limiting factor for some internships.

Graph 36: *Support and Incentives for WEL Learners*



WEL is widely recognised as an effective link between TVET institutions and the industry. Furthermore, it offers WEL interns the opportunity to transition into permanent employment. The study aimed to assess the performance of WEL (Workplace Experience Learning) interns.

The study indicated that Workplace Experience Learning (WEL) is widely regarded as an effective system for connecting TVET education with industry needs, with an average rating of 4.28. However, the potential for WEL interns to be absorbed as permanent staff is rated at 3.74, indicating a strong but variable likelihood of conversion into full-time roles. WEL interns' practical skills and work output are rated moderately at 3.59 and 3.53, respectively, suggesting that there is room for improvement in preparing interns for workplace demands. Some employers view WEL interns primarily as a source of free labour, with a rating of 3.30, highlighting the need to address concerns about fair compensation and recognition of interns' contributions. Additionally, supervision requirements received the lowest rating of 2.75, signalling that interns often require significant guidance to perform effectively.

Table 19: *Importance and Performance of WEL Interns*

Statements	Mean	Standard Deviation
WEL is a good system to promote linkages between TVET supply and demand institutions for feedback in skill development and usage, respectively	4.28	0.60
I absorb/recruit WEL interns who are hardworking as permanent staff in my organization	3.74	0.84
WEL interns have practical skills and the capacity to work	3.59	0.86
WEL interns give enough output and results	3.53	0.75
WEL interns are a good source of free labour	3.30	1.19
WEL interns require less supportive supervision to perform	2.75	1.02

Employers have identified several risks associated with hosting WEL interns, with the most significant concerns being potential equipment damage (68%) and decreased productivity (44%). Other risks include reputational damage (42%) and lack of commitment from some interns (30%).

The primary concern, highlighted by 68% of respondents, is equipment destruction. This suggests that many interns may lack adequate technical training or hands-on experience, potentially leading to financial losses and operational disruptions. From the employers' perception of TVET, this degradation is attributed to the inadequate tools and equipment found mainly in public TVET institutions. The disparity between industrial machinery and what is available in TVET institutions requires immediate attention to provide practical training that meets industrial standards. Such incidents can also pose safety hazards, underscoring the importance of proper supervision and structured onboarding programmes before interns are entrusted with critical machinery. It may have dire consequences on WELL if not solved on time, as many enterprises may begin to reject interns.

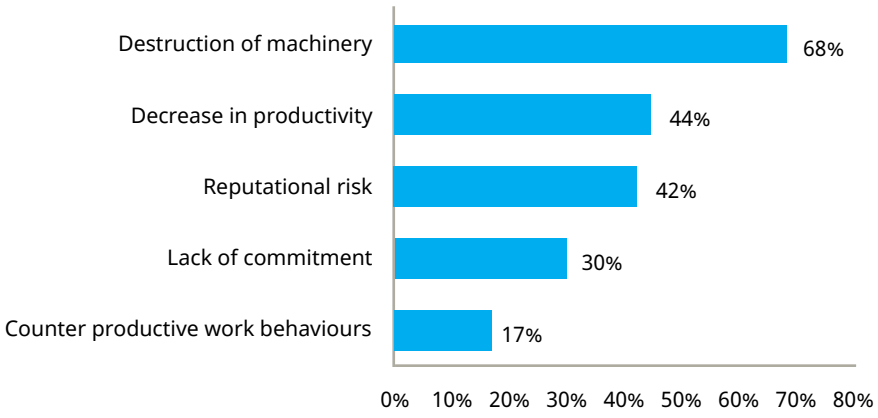
Additionally, 44% of enterprises reported decreased productivity. While internships are meant to offer learning experiences, they can slow down operations as interns require additional guidance, training, and supervision. This indicates that while interns bring enthusiasm, they may not have the skills necessary to contribute efficiently at the outset. Implementing structured mentorship and skill development programmes could help address this challenge.

If interns fail to meet professional standards or hinder workplace efficiency, it may damage the organization's reputation, particularly in dealings with external stakeholders. While the risk of counterproductive behaviour (17%) is relatively low, it highlights the need for effective orientation and supervision to ensure WEL interns maintain work quality and professionalism.

Another concern, mentioned by 30% of employers, is the lack of commitment from some interns. Inconsistent work ethic, engagement, or attendance can disrupt workflows and place extra pressure on full-time employees who must compensate for the interns' lack of effort. Clear expectations, performance monitoring, and motivational strategies could improve intern engagement and accountability.

Lastly, 17% of respondents reported counterproductive work behaviours such as poor teamwork, failure to follow instructions, and general disruptions. Although this is a minor concern compared to others, it still emphasises the need for behavioural assessments and workplace training to help interns integrate smoothly into company culture.

Graph 37: *Risks in Accepting WEL Learners*



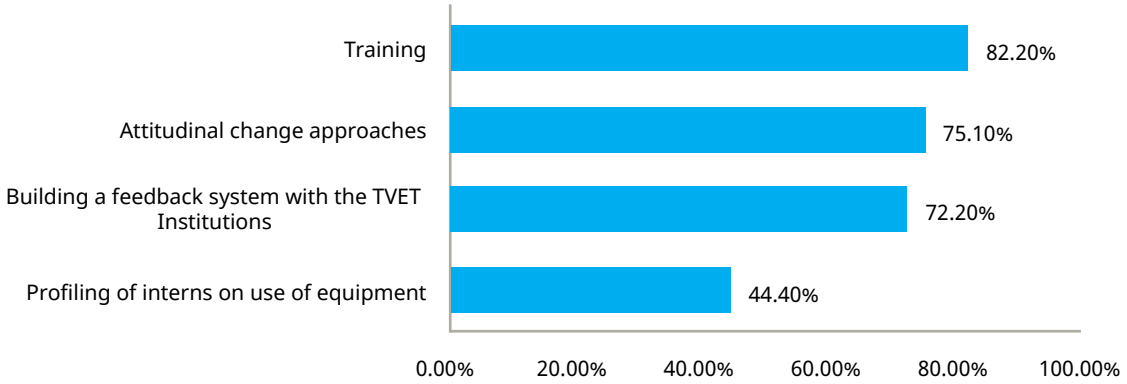
Enterprises have proposed several strategies to mitigate the risks associated with WEL interns. The most widely supported strategy is providing comprehensive training (82.2%), followed by approaches aimed at attitudinal change (75.1%). Other effective measures include establishing a feedback system with TVET institutions (72.2%) and profiling interns for equipment use (44.4%) to reduce risks and ensure successful internships.

82.2% of respondents emphasised the importance of training. This highlights the need to equip interns with the technical skills, safety protocols, and operational knowledge necessary for their roles. Proper training ensures that interns can handle machinery, perform tasks efficiently, and integrate smoothly into the workplace, ultimately minimizing risks like equipment damage and decreased productivity. Closely following, 75.1% of respondents support attitudinal change approaches. This suggests that companies recognise the value of fostering a professional mindset among interns in addition to technical skills. Promoting a strong work ethic, responsibility, and commitment to workplace standards can significantly enhance an intern's contribution. Strategies like mentorship programmes, workplace orientation, and creating a culture of accountability can help shape interns' attitudes and behaviour toward their roles.

72.2% of respondents also shared to developing a feedback system with TVET institutions. This highlights the importance of ongoing collaboration between enterprises and educational institutions to ensure that interns are adequately prepared for the workplace. A structured feedback system is required to allow companies to communicate observed skills gaps, helping TVET institutions refine their curricula and better prepare future interns for industry demands. From the findings at the supply side on CBT implementation by the TVET institution, it was clear that they are instead implementing what is termed CBTra[38] (Competency-based tradition by 69% of TVET schools). Though there is a feedback system from enterprises to the TVET institutions, it is not to the requirement of CBT.

Profiling interns for equipment use, though less emphasised (44.4%), is still considered a valuable approach. This strategy allows enterprises to assess an intern's prior experience, skills, and comfort level with machinery before assigning tasks. Profiling could include practical assessments, certifications, or supervised trials to ensure interns are ready to work independently with equipment, thereby reducing the chances of accidents and mishandling.

Graph 38: *Mitigation of Risks Posed by WEL Learners*

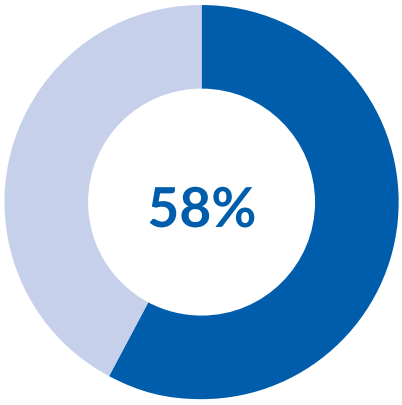


[38] This coined term refers to a situation where TVET CBT training is blending the traditional approaches or pedagogy

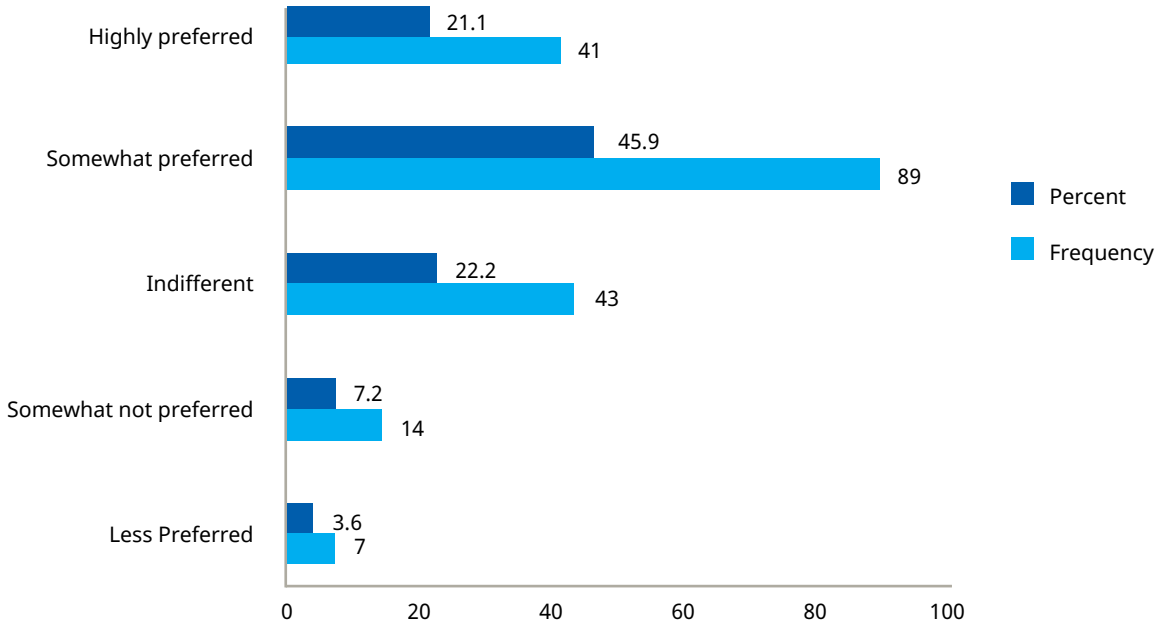
4.3.3. EMPLOYERS' SPECIFIC SKILLS PREFERENCES FOR TVET HIRING

A notable 58% of companies seek youth with specific skills from training centres for employment. Most enterprises prefer candidates with some skills rather than those who are highly skilled. Specifically, 45.9% of respondents expressed a preference for hiring candidates with some skills, compared to just 2.1% who favour highly skilled candidates. A significant portion (22.2%) remains neutral, suggesting flexibility in hiring decisions based on other factors. Only 10.8% of companies indicated they do not prefer certified or skilled labour. This aligns with the broader trend in the report, highlighting that 58% of enterprises actively seek skilled youth from training centres, underlining the importance of certified training programmes in preparing a workforce capable of addressing employment challenges.

Graph 39: *Specific Skills Needs from Enterprises*



Graph 40: *Skills Preference*



Enterprises share that candidates entering the job market need soft skills, particularly teamwork, and specific technical skills in their trade to thrive in the labour market. The data on entry-level skills was analysed using a Likert scale from 1 (Never) to 5 (Always), assessing how frequently new hires demonstrate essential skills when joining an organization. The mean scores reveal gaps and strengths in employee skills at the entry level. Teamwork (4.09) and job-specific technical skills (4.03) received the highest ratings, indicating that most employees are capable of collaboration and possess essential industry knowledge. Creative and critical thinking (3.98) and the ability to work independently (3.88) suggest some autonomy but require further development. Leadership skills (3.71) indicate that most new hires lack initiative and need structured leadership training. Basic computer skills (3.50) received the lowest score, highlighting difficulties with digital tools, spreadsheets, and modern workplace technologies.

Table 20: *Skills That Employees Possess or Lack at the Organization's Entry Level*

	Skills/Competencies	Mean	Standard Deviation
1.	Teamwork skills	4.09	0.90
2.	Job-specific technical/vocational/ professional skills	4.03	0.94
3.	Creative and critical thinking	3.98	0.96
4.	Ability to work independently	3.88	0.96
5.	Leadership skills	3.71	0.99
6.	Basic computer skills	3.50	1.07

Enterprises also highlighted difficulties in hiring for specific skills for their businesses. Questions asked included job positions that were difficult to fill. Questions were asked about job positions that are particularly challenging to fill. Positions such as heavy earth-moving machine operators, high-pressure welders, rice planting specialists, and geologists are particularly difficult to fill, as indicated by their low mean scores (below 2.5). These roles require highly specialized skills and certifications that are not widely available in the workforce, underscoring the need for better vocational training programmes and incentives to attract more talent to these fields. Similarly, coding IT specialists and engineers, with mean scores between 2.5 and 3.0, are moderately difficult to recruit, as the demand for up-to-date programming skills and practical engineering experience outpaces the available talent. In contrast, roles such as Supervisors/General Managers and Executive Chefs are rated as easier to fill, likely because these positions require leadership experience, which is more commonly found in the labour market compared to highly technical roles.

Table 21: *Occupations Difficult to Fill*

	Occupation list	Mean	Standard Deviation
1.	Supervisors and General Managers	3.28	1.10
2.	Chefs/Executive Chefs	3.16	1.02
3.	Coding IT Specialist	2.62	1.09
4.	Engineers, e.g. Reservoir, Electrochemical, Mechanical, Civil	2.36	1.21
5.	Geologist	2.28	1.01
6.	Rice Planting Specialist	2.25	0.92
7.	Heavy Earth-Moving Machine Operators	2.21	0.94
8.	High-Pressure Welders	2.18	0.95

5

SECTOR-WIDE SKILLS GAPS AND MISMATCH ANALYSIS

5.1. SKILLS GAP AND SKILLS MISMATCH

Ghana's economy, including the Ashanti region, is organised into three primary sectors: Agriculture, Industry, and Services. These sectors play a pivotal role in driving the country's economic growth, creating employment opportunities, and fostering trade development.

However, despite the contribution of these sectors to the national economy, significant skill gaps persist across all levels of occupations, which hinder productivity and competitiveness. Respondents from various industries, particularly in Ashanti, pointed out clear skill shortages across different job levels, from entry-level positions to senior leadership roles. These gaps encompass a broad range of technical, soft, and hard skills, with some roles becoming increasingly difficult to fill. Training institutions, including TVET providers, are not adequately equipping individuals with the necessary skills to meet the demands of these positions, nor are they offering programmes tailored to address specific industry requirements.

The study found that TVET graduates, particularly those entering the workforce, often lack key competencies such as computer literacy and leadership skills belonging to the categories of skills known as the 21st century skills. The 21st century skills can be categorised into three: Learning and innovation skills, digital literacy and career and life skills.[39] This gap highlights the need for a more comprehensive approach to training, one that integrates digital skills and leadership development to ensure that learners are adequately prepared for the challenges of the Fourth Industrial Revolution (4IR). Without these essential skills, young graduates struggle to adapt to the evolving demands of the labour market, making it critical to rethink the TVET curriculum to better equip learners for the future.

Skills gaps and skills mismatches are key issues within the workforce and can manifest in various ways. A skills gap[40] is typically defined as the disparity between the skills required for a job and the skills that individuals currently possess. At the micro-level, businesses and organizations often conduct skills gap analyses to identify where existing employees are lacking in the competencies necessary to perform specific tasks effectively. At the industry level, the skills gap often reflects the lack of specialized knowledge or expertise required in rapidly evolving sectors, driven by technological advancements or new industry standards and regulations. These gaps can result in lower productivity, inefficiencies, and difficulty in meeting sector-specific demands.

On a broader scale, a skills mismatch[41] occurs when there is an imbalance between the skills available in the labour market and the skills demanded by employers. This situation can arise when there are either too few skilled workers to meet the labour market's needs or an oversupply of skills that the market cannot absorb. Skills mismatch leads to issues like unemployment or underemployment, which in turn affects economic productivity and competitiveness. To address this, it is crucial to have systems in place that can predict future labour market demands and identify the skills that will be required in various sectors. This will allow training providers to design relevant programmes that align with these needs, ensuring that workers are equipped with the skills necessary for success.

The research highlights that addressing critical skill gaps and mismatches within the priority sectors - Agriculture, Industry, and Services - is essential for sustainable economic development. Bridging these gaps will enable the workforce to meet the evolving needs of the economy and contribute meaningfully to its growth. The analysis categorizes the skill gaps and mismatches into three levels - Low, Medium, and High - based on the discrepancy between the skills required and those possessed by the workforce, as well as the alignment between available skills and employer demands.

[39] The 21st Century skills also known as the essential or transversable skills are the skills needed for all careers. The list cannot be exhaustible but here are some examples critical thinking, creativity, problem solving, collaboration, communication, information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity and social skills. These skills contribute to the success of employment aside the technical or vocational skills one acquires – unevoc.unesco.org

[40] https://unevoc.unesco.org/home/TVETipedia+glossary/lang=en/show=term/term=Skills+gap

[41] https://unevoc.unesco.org/home/TVETipedia+glossary/lang=en/show=term/term=Skills+mismatch#start

Table 22: *Categorization of Skills Gap and Skills Mismatch (Low, Medium, and High)*

Level	Skill Gap Definition	Skills Mismatch Definition
Low	Minimal discrepancy between the skills required and those possessed by the workforce. Most workers are adequately skilled to perform their roles. Small gaps may exist but are easily addressed.	Low imbalance between the skills available in the labour market and those demanded by employers. Most workers are employed in roles matching their skill sets.
Medium	Moderate gap between required skills and the skills possessed by the workforce. Some training or skill development may be needed to meet industry standards.	Moderate imbalance where some sectors have skill shortages, while others have an oversupply. Workers may need additional training or re-skilling to meet industry demands.
High	Significant discrepancy between required skills and available skills. Major challenges in filling roles, and extensive skill development or retraining is needed.	High imbalance, with a severe shortage or surplus of skills. Leads to underemployment or difficulty filling roles, necessitating urgent reforms in training and education systems.

5.2. AGRICULTURE SECTOR

Sector Economic Trend in Ghana

- Agriculture remains a key pillar of Ghana's economy, accounting for approximately 20% of the country's GDP. Cocoa remains a dominant cash crop, with Ghana being the second-largest global producer.
- There is increasing mechanization and adoption of modern agricultural techniques.
- Government interventions such as Planting for Food and Jobs (PFJ) to boost productivity.
- Growth in agribusiness, with a focus on value-added products and export opportunities.
- Challenges include post-harvest losses, inadequate irrigation infrastructure, and climate change impact.

Sector Economic Trend in Ashanti Region

- The agriculture sector in the Ashanti region employs the majority of the population, particularly at the district levels.
- There are 436,019 agricultural households out of a total of 910,647 households. The agriculture sector in the Ashanti region comprises 5,844 institutions out of a total of 85,034 institutions.[42] The region produces the bulk of seed maize in the country, supplying input dealers and farmers not only in Ashanti but also in other regions of Ghana and neighbouring countries, notably Mali, Burkina Faso, Togo, and Benin. In 2022, the region led the production of the following crops in Ghana: maize (567,937 tonnes), cocoyam (504,037 tonnes), and plantain (504,037 tonnes), and ranked second in cassava production (4,372,160).[43]
- The region has 27 1D1Fs with 11 being agro-based including Bodukwan Farms Ltd, Vestor Oil Processing Company, AICP Limited, Ababio Express, Kaskazini Ltd, Agro Africa Ltd, Premium Foods, Beacon Hills Industries Limited, Boris 'B' Farms & Vet Supplies Gh Ltd., Anok Gyes Farms Limited, SBA Company Ltd (Ashanti Foods) and Darko Farms Group.
- Growing interest rice and vegetable farming due to increasing urban food demand.
- There is an increasing role of agribusiness and agro-processing firms in adding value to raw agricultural products.

Key Sub-sectors

- Crop Production (Cocoa, Maize, Rice, Cassava, Vegetables)
- Agribusiness and Agricultural Services

Key skill requirement for employers from Ashanti Region

- **Technical Skills:** Modern agronomic practices and sustainable farming techniques, Mechanized farming and irrigation management.
- **Business and Entrepreneurial Skills:** Agribusiness management and financial literacy, Market analysis and export readiness, Supply chain and logistics management.
- **Digital and Technological Skills:** Use of precision agriculture and smart farming tools, Digital marketing for agribusinesses, Data analytics for farm productivity improvement.
- **Soft Skills:** Problem-solving and adaptability, Teamwork and communication, Leadership and innovation.

Industry-linkage and TVET

Skills Gap HIGH **Skill Mismatch** HIGH

[42] Statistics Research, and Information Directorate of Ministry of Food and Agriculture (2022) Facts & Figures: Agriculture in Ghana, 2021
[43] Statistics Research, and Information Directorate of Ministry of Food and Agriculture (2022) Facts & Figures: Agriculture in Ghana, 2021

TVET and industry demand

- Only 1 public TVET institution provides training in Agric Mechanization Technology.[44]
- Outdated curriculum that does not fully align with modern industry needs.
- Inadequate exposure of trainees to digital and precision agriculture due to access to modern agricultural tools and equipment in training institutions.
- There is shortage of value-chain specific roles such as **Rice planting specialists.** According to the respondents in the demand survey, this was identified as one of the difficult-to-fill positions.

Action areas

- Increase the number of TVET institutions offering both short and long-term agriculture courses in the short and long term in the Ashanti region since the region is an agrarian region.
- Align TVET programmes with industry needs, for example, agribusiness, digital tools, and climate-smart agriculture in the trades available. According to the Ghana TVET report 2023, approximately 17 CBT programmes have been developed within the agriculture sector, which can be validated for training in TIs in the Ashanti Region.
- Strengthen partnerships between TVET institutions and agribusiness firms for internships and hands-on training. A relationship already exists between the industry and TVET institutions, as indicated by the demand survey. A large majority (95%) of enterprises are ready to provide practical training for WEL interns, suggesting that businesses recognise the importance of hands-on skill development. This connection needs strengthening to endure.
- Improve access to modern agricultural tools, mechanised equipment, and research facilities in TVET institutions to facilitate the implementation of CBT agriculture courses to enhance improved skills acquisition.
- Train TVET instructors on emerging agricultural technologies and best practices.
- Engage policymakers, including the Agric Sector Body, to review and implement an agricultural education framework that support industry demands and future growth trends In the agricultural sector.

[44] This program is not CBT accredited

5.3. INDUSTRY SECTOR

Sector Economic Trend in Ghana

- The industrial sector (manufacturing, mining, construction, and utilities) is a key driver of economic transformation.
- Mining and quarrying contribute significantly, with Ghana being a top gold producer and having reserves of bauxite, manganese, limestone, and salt.
- Manufacturing contributes about 29% to GDP, supported by initiatives like One District, One Factory (1D1F) to boost local production.
- Construction is expanding due to infrastructure investments and urbanization.
- Electricity, gas, and water supply support industrial growth, with improvements in renewable and thermal energy sources.

Sector Economic Trend in Ashanti Region

- Industries operate mainly in the informal private sector, though some formal private industries play a key role. Industries in the Ashanti region is growing daily due to the region's natural resources, which provide raw materials for production.[45]
- The region has notable foreign-owned private industries such as Twellium Industrial Limited, Guinness Ghana Limited, Fan Milk Company Limited, and Kofak Global Limited. Some locally owned industries are CBS Supreme Industries Limited, Spring and Bolt Company Limited, Prefos Limited, Juabeng Oil Mills Limited, and Vester Oil Mills Limited.
- The Association of Ghana Industries (AGI) Ashanti and Brong Ahafo Branch from the qualitative KIIs, has categorized industries into sub-sectors such as food & beverages, garments, automotive, chemicals, pharmaceuticals, electronics, agribusiness, wood processing, and hospitality. The AGI has over 200 members in the Ashanti Region, comprising 25% large-scale industries and the remainder small and medium-sized enterprises (SMEs).
- The manufacturing sector is the second-largest employer in Kumasi, employing 13.6% of the workforce. In the Ashanti Region, there are 188 construction companies as of January 2025, which is a 1.62% increase from 2023. A total of 186 (98.94%) construction companies are single-owner registered in the Ashanti Region. Key cities with these companies are Greater Kumasi with 77, Obuasi with 11, Tafo with 6, and the remaining scattered in other towns. It is worth noting that the average age of these companies is 3.1 years.[46]

Key Sub-sectors

- **Manufacturing:** Agro-processing, textiles, cement, chemical industries, beverage manufacturing, automobile assembly.
- **Mining & Quarrying:** Gold, bauxite, manganese, limestone, and salt mining.
- **Construction:** Infrastructure, housing, roads, bridges, and commercial buildings.

[45] Ashanti Region In Ghana Köln, 2020 Project I Report Content December 2019
[46] https://rentechdigital.com/smartscraper/business-listings/construction-companie

Key skill requirement for employers from Ashanti Region

- **Technical Skills:** Machine operation, Welding, Carpentry, Plumbing, Masonry, Industrial mechanics, Electrical installation, Automation.
- **Business and Entrepreneurial Skills:** Business management, Financial literacy, Supply chain management, Marketing strategies.
- **Digital and Technological Skills:** CAD software, Automation systems, Digital marketing, Data analytics, and ERP systems.
- **Soft Skills:** Communication, Teamwork, Problem-solving, Adaptability, Customer service.

Industry-linkage and TVET

Skills Gap **MEDIUM** **Skill Mismatch** **MEDIUM**

TVET and industry demand

- Overall, there is a requirement for skilled workforce. The demand for technical and digital skills is increasing with industrial expansion.
- However, there are concerns related to practical hands-on training, alignment with technology,] and a range of courses offered by TVET institutions aligned to industry requirements (for example, catering, fashion, welding and fabrication).
- Additionally, the focus and quality of courses are not prioritised for the region's needs. For example, only electrical engineers are trained by TVET institutions, while others, including electronic engineering and electrical machine motor rewinding, are among the courses least offered in the TIs.
- From the KIIs qualitative data, most industries prefer in-house training rather than hiring from TVET institutions. Large industries have their own training schools for skill development. This strategy offers economic benefits and produces a fit-for-purpose workforce. Some companies, such as Prefos Company Limited and Unijay Fashions in the Ashanti Region have their own training departments.
- Occupations such as operators of heavy earth-moving machinery and high-pressure welders are in high demand due to growth in the construction sector. Kumasi Technical University offers a course in heavy-duty mechanics; however, a key informant interview revealed that the programme currently has over 500 trainees in a single class with only two facilitators, which is highly inadequate. There is a need to expand such programmes and review the curriculum to better align with industry requirements.

Action areas

- Strengthen TVET-industry collaboration to align training with industry needs.
- Promote apprenticeship programmes in large companies and provide certifications.
- Invest in digital and automation training for manufacturing and construction sectors.

5.4. SERVICE SECTOR

5.4.1. Hospitality and Tourism

Sector Economic Trend in Ghana

- **Developments have bolstered Ghana's hospitality industry, positioning it as the fourth largest in Africa.** The tourism and hospitality industry are a major contributor to Ghana's GDP, accounting for approximately **5.9% of GDP**.
- Ghana's hospitality subsector has gained significant attention as an emerging market, particularly highlighted in Price Waterhouse Cooper's (PWC) Hospitality Outlook 2017-2027 report. Recognizing the potential, both locally and internationally branded hotels have begun to establish themselves in the country. This growth is reflected in the rise of international tourists visiting Ghana, with over 1.1 million arrivals in 2023, compared to 915,000 in 2022, marking a steady increase. This uptick follows a challenging period in 2020 when tourism numbers hit an all-time low due to the COVID-19 pandemic.
- In 2022, the travel and tourism sector contributed approximately 3.4 billion U.S. dollars to Ghana's GDP, an increase from the 3.1 billion U.S. dollars recorded in 2021. The sector's contribution was projected to exceed 3.6 billion U.S. dollars in 2023. The accommodation and food services segment alone contributed about 4.1 billion Ghanaian cedis (approximately 278.5 million U.S. dollars) to the national economy in 2023. The 15-Year National Tourism Development Plan (2013-2027) outlines the role of tourism in driving national and local economic development, employment creation, and environmental conservation, further cementing its importance to Ghana's growth.
- Key drivers include **eco-tourism, cultural tourism, leisure tourism, and business tourism.**
- Government initiatives like the "Beyond the Return" campaign boost international tourism.
- Hotel and restaurant growth is fuelled by rising domestic tourism and foreign investments.

Sector Economic Trend in Ashanti Region

- Kumasi is a cultural hub, attracting tourists with historical sites like Manhyia Palace, Lake Bosomtwe, and Bonwire Kente Weaving Village.
- The hospitality sector is growing with increased investments in hotels, guesthouses, and restaurants. Prominent hotels in the region include Prestige Guesthouse, Oak Plaza Suites, Asantewaa Premium Hotel, and Fredericks Lodge, all of which contribute to the region's growing hospitality landscape.
- The region benefits from programmes like the Pathway for Sustainable Employment for Women and Youth (PASSEWAY), which equips young women with the skills needed for high performance in the tourism and hospitality industry.
- However, inadequate infrastructure and workforce skills hinder full industry potential.

Key Sub-sectors

- **Accommodation Services** – Hotels, lodges, guesthouses, and resorts.
- **Food & Beverage Services** – Restaurants, bars, catering services.
- **Travel & Tour Services** – Tour operators, car rentals, and travel agencies.
- **Cultural & Heritage Tourism** – Museums, festivals, historical.
- **Eco-Tourism –** Wildlife reserves, nature parks, and adventure tourism.

Key skill requirement for employers from Ashanti Region

- **Technical Skills:** Culinary arts, hotel management, housekeeping, event planning.
- **Business & Entrepreneurial Skills:** Customer relationship management, financial management, tourism marketing.
- **Digital & Technological Skills:** Online booking systems, social media marketing, hospitality software.
- **Soft Skills:** Communication, customer service, adaptability, cultural awareness.

Industry-linkage and TVET

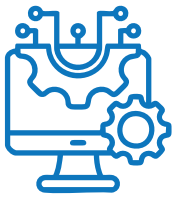
Skills Gap **MEDIUM** **Skill Mismatch** **MEDIUM**

TVET and industry demand

- Demand for practical training in hospitality management and tourism operations. In most cases, TIs lack proper practical labs and equipment The demand side prefers more hospitality and tourism-focused TVET programmes. They also need trainee with language proficiency training to cater to international tourists.
- The hospitality sector involving chefs is another area where the supply side connects with the industry halfway. While the TVET institutions train a high number of catering learners annually, the industry demand for chefs with skills in various cuisines is not being met. The demand side prefers chefs with skills in local, continental cuisines, pastries, and other areas to ensure they receive value for money.

Action areas

- Strengthen hospitality training programmes in TVET institutions by equipping workshops with modern tools to improve the skills and knowledge of learners.
- Skills-up centres can be established in collaboration with the industry to provide specialised training for front office and hotel receptionists, room attendants, public area attendants, concierge services, bartenders, food service personnel, and hotel managers, among others. A key informant indicated that skills-up centres will be helpful to bridge the gap between industry needs and what training institutions provide.
- Promote internship and apprenticeship programmes with hotels and travel agencies.
- Enhance digital and customer service training for tourism workers.
- Improve infrastructure and tourist site management to attract more visitors.
- Expand eco-tourism initiatives to boost sustainable tourism.



5.4.2. Information And Communication Technology (ICT)

Sector Economic Trend in Ghana

- The ICT sector contributes **3.6% to Ghana's GDP** and is one of the fastest-growing industries.
- Information and communication technology (ICT) has been a major growth area, with the telecommunications industry expanding rapidly. Mobile penetration is high, and internet services are increasingly becoming essential for businesses and households.
- The rise of fintech and digital payment systems has further revolutionized economic transactions in the country.
- Government initiatives such as Ghana Digital Transformation Agenda and E-Government Projects are boosting the industry.
- Increased investments in tech start-ups, digital banking, and e-commerce.
- There is a shortage of skilled digital professionals, leading businesses to hire from overseas.
- There is a significant shortage of digitally skilled professionals, as revealed in Ghana's digital economy report by the World Bank. A gap that hinders the acceleration of digital transformation and the development of a robust digital innovation ecosystem for national and regional opportunities exists. Despite the availability of training programmes in digital skills, the report highlights that local businesses often feel compelled to seek talent from overseas. This necessity arises from the scarcity of locally available professionals with the in-demand skill sets required by the industry. These skills include data analysis and modelling, software and cybersecurity engineering, web design, digital marketing, and content curation and moderation. The disparity in male and female participation in the ICT space is enormous in Ghana. This has led to the government's launch of a "Girls in ICT Trust" initiative aimed at empowering young women and girls in the field of information and communication technology (ICT).[47]

Sector Economic Trend in Ashanti Region

- Kumasi is emerging as a tech hub, with growing numbers of software developers, digital entrepreneurs, and ICT training centres.
- ICT is expected to have cross-cutting effects on other industries. These is increasing adoption of digital payment systems and e-commerce platforms.
- Kumasi is also witnessing foreign investment for set-up of business processing operations (BPOs) and Knowledge processing operations (KPOs) to support western countries.
- About 6,334 individuals are employed in the ICT sector in Ashanti.[48]

[47] Ministry of Communication, Digital Technology and Innovation 2023
[48] The determinants of entrepreneurship and entrepreneurial success - Study on circumstantial factors and characteristics of entrepreneurs in Ghana, D. Baffour-Awuah, September 2021

Key Sub-sectors

- **Telecommunications** – Mobile networks, broadband services.
- **Software Development & IT Services** – App development, cybersecurity, IT consulting.
- **E-commerce & Digital Marketing** – Online retail, fintech, digital advertising.
- **Tech Start-ups & Innovation** – AI, blockchain, IoT solutions.
- **ICT Education & Training** – Coding schools, digital skills programmes.

Key skill requirement for employers from Ashanti Region

- **Technical Skills:** Software engineering, cybersecurity, cloud computing, networking.
- **Business and Entrepreneurial Skills:** Digital business management, e-commerce strategies, tech entrepreneurship.
- **Digital and Technological Skills:** Data analytics, AI and machine learning, blockchain technology.
- **Soft Skills:** Critical thinking, problem-solving, teamwork, adaptability.

Industry-linkage and TVET

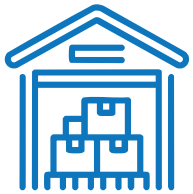
Skills Gap HIGH **Skill Mismatch** HIGH

TVET and industry demand

- Lack of specialized ICT training programmes tailored to industry needs and the rapidly evolving tech industry. This is explained by the fact that fewer institutes (4 out of the 57 TIs) provide training in ICT. There is the need to build the capacity of staff in ICT to ensure onward transfer of knowledge and skills to learners for the growth skills in the ICT value chain. The study showed that only 14% of the TIs offer courses in Information technology, followed by 4% offering training computer hardware and 2% in computer networking this is woefully inadequate.
- Need for more ICT-related certifications and industry partnerships.
- Expansion of remote work and freelancing opportunities for ICT graduates.
- ICT (hardware and networking) courses are currently not offered by TIs.
- IT specialists and coding engineers were also noted as not readily available for recruitment.
- Apart from IT-specialist, the demand side expects high digital skills across all occupations. This requires an in-depth review of digital competencies across courses and levels (basic, intermediate and advance). Advocacy for the review of CBT must include a call for computer skills as part of all courses in the TIs.

Action areas

- Strengthen ICT-focused TVET.
- Promote public-private partnerships to provide internships and job placements.
- Enhance digital literacy and cybersecurity awareness.
- Support start-up funding and incubation programmes for young entrepreneurs.
- Review CBT-framework for digital competency.



5.4.3. Retail and Wholesale Business

Sector Economic Trend in Ghana

- Retail and wholesale trade contributes 18% to Ghana's GDP.
- Growth is driven by urbanization, rising consumer demand, and increased e-commerce adoption.
- Informal markets dominate, with traditional open markets, street vendors, and small shops playing a crucial role.
- Supermarkets, malls, and digital commerce platforms are expanding, fuelled by middle-class growth and foreign investments.

Sector Economic Trend in Ashanti Region

- **Kumasi is a major trading hub**, home to **Kejetia Market**, one of the largest markets in West Africa.
- Retail trade is predominantly **informal**, with small and medium enterprises (SMEs) dominating.
- Increasing shift toward **modern retail (shopping malls, supermarkets, and online stores).**
- Challenges include **limited access to finance, high cost of imports, and poor supply chain management.**

Key Sub-sectors

- Traditional Retail & Open Markets – Street vendors, market traders, small shops.
- Supermarkets & Shopping Malls – Modern retail outlets, chain stores.
- Wholesale Trade & Distribution – Bulk suppliers, import/export businesses.
- E-commerce & Digital Retailing – Online stores, mobile money transactions.
- Specialty & Luxury Goods – Electronics, fashion, pharmaceuticals.

Key skill requirement for employers from Ashanti Region

- **Technical Skills:** Inventory management, Logistics, Procurement, Store management.
- **Business and Entrepreneurial Skills:** Sales techniques, Financial management, Negotiation, Supply chain operations.
- **Digital and Technological Skills:** E-commerce management, Digital marketing, Point-of-sale (POS) systems.
- **Soft Skills:** Customer services, Communication, Problem-solving, Adaptability.

Industry-linkage and TVET

Skills Gap MEDIUM **Skill Mismatch** MEDIUM

TVET and industry demand

- Limited formal training in retail management and e-commerce operations. E-commerce businesses and online ventures are expanding in regions like the Ashanti Region. For example, in the transportation sector, services such as Uber, Yango, and Bolt are available alongside online shopping platforms like Alibaba and Amazon. Online medical services, imports, and exports are emerging as the new modes of business, necessitating the development and utilisation of skill sets for these industries among the youth in the Ashanti Region, which is the second-largest city in the country.
- Need for more structured business and financial literacy programmes.
- Expansion of wholesale and logistics management training.

Action areas

- Strengthen business and retail management training in TVET institutions.
- Promote financial literacy and entrepreneurship programmes for traders and gig-workers.
- Improve wholesale and supply chain management efficiency.
- Provide access to credit and financial support for small businesses and gig-workers.

5.5. SPOTLIGHT: 1D1F IN THE ASHANTI REGION: ENGAGEMENT WITH TVET

Box 2: One District One Factory

Image 5 | *One District One Factory. (Source: 1d1f.gov.gh)*

The One District One Factory (1D1F) initiative, launched by the Government of Ghana in 2016, has significantly contributed to industrialization and job creation in the Ashanti Region. As of December 2024, 27 out of over 30 established 1D1F initiatives are functional, employing over 27,000 people, primarily in the industrial and agricultural sectors.

However, a noticeable skills gap hampers the full potential of these industries. While TVET institutions produce skilled workers, there is a mismatch between their training and the needs of 1D1F factories, particularly in digital literacy, machine operation, and leadership. These factories, especially in the industrial sector, require workers skilled in machine operation, production management, and quality control, while agriculture-based factories need expertise in modern farming, processing, and value chain management. Soft skills like leadership, teamwork, and communication are also critical.

To maximize the success of 1D1F in Ashanti, TVET institutions must align their programmes with industry demands, focusing on both technical and soft skills. Strengthening the collaboration between TVET, industry stakeholders, and government agencies is key to addressing the skills gap and ensuring the sustainability of the initiative.

In conclusion, while 1D1F has made strides in creating jobs and promoting industrial growth in Ashanti, addressing the skills gap is crucial for the long-term success and economic contribution of these factories. Aligning TVET training with industry needs will better prepare the workforce and support the region's industrial development.

5.6. SPOTLIGHT: EVOLVING SKILL NEEDS IN SUAME MAGAZINE, ASHANTI REGION

Box 3: Suame Magazine

Suame Magazine, a key hub for skilled automotive technicians in Ashanti Region, plays a vital role in the local economy. Established in 1989, it has become a major centre for vehicle repairs, technical services, and spare parts trading. However, the sector faces challenges, particularly in skill development, technology adoption, and the increasing demand for expertise in electric vehicles (EVs). Despite strong ties with Technical and Vocational Education and Training (TVET) institutions, there is a gap in hands-on experience with modern technologies. Many workers have theoretical knowledge but struggle to apply it, especially in emerging technologies like EVs.

The sector also contends with outdated tools, limited diagnostic equipment, and unreliable supplies of spare parts, particularly for electric vehicles. Additionally, illegal mining (galamsey) has drawn potential workers away from the automotive sector, affecting the future sustainability of Suame Magazine. The rise of electric vehicles presents both a challenge and an opportunity. To remain competitive, Suame Magazine must prioritise training in EV repair, battery maintenance, and renewable energy systems.

Image 6 | *EV Vehicle Charging in Ghana. (Source: Ghana the Black Star of Africa's Post)*

Key recommendations include:

Strengthening international collaboration for access to new technologies and knowledge transfer.

Upgrading training programmes with TVET institutions to focus on modern technologies, especially EV-related skills.

Developing specialized EV training programmes in battery management and drivetrain maintenance.

With over 700,000 members, Suame Magazine is a critical component of the informal sector in Ashanti Region. To thrive in the evolving automotive industry, particularly with the rise of electric vehicles, it must adapt through modern training, strategic partnerships, and infrastructure improvements. Collaboration between the informal sector, government, and educational institutions will be crucial for future growth and success.

RECOMMENDATIONS FOR STRENGTHENING TVET

S/N	FINDING	IMPLICATIONS FOR ASHANTI REGION		
		TVET /LEARNING ETC.	LABOUR MARKET	TVET SERVICE
1	16 of the 43 MMDAs in the Ashanti region lack any formal TIs, whether public or private, at the pre-tertiary level.	Some potential learners in districts without TVET may not be able to access formal TVET due to the absence of institutions in their districts, and they may not be able to afford the cost of traveling to even the closest district.	Enterprises in districts without TVET institutions may be unable to collaborate with TVET institutions due to the long distances to these institutions.	Efforts should be made through the Ministry of Education to establish TVET institutions in the district that currently lacks one. There could be a roadmap to do it in phases.
2	There are 43 occupational trades offered by the 57 regions. TVET institutions in the Ashanti region are comprised of 22 private and 35 public institutions. Fashion Design Technology runs high in both the public and private institutions, followed by Electrical Engineering in the public institutions and Garment Construction in the private institutions.	While there is an emergence of new technologies, digital and green skills, these are not being taught in; these TVET Institutions.	Enterprises in the region operating in emerging technologies may recruit staff from any of the TVET institutions in the region.	Initiate a process to review the existing trade areas in the emerging technologies and validate the occupational standards with the private sector and CTVET for approval and subsequent implementation in selected institutions.
3	Only one public TVET institution is offering agriculture-related trade (Agric Mechanisation Technology).	Establishments in the agricultural sector may lack entry, middle-level skilled personnel and specialised resources in specific value chains.	The Ashanti region, being a predominantly an agrarian economy, will not have the required technical skills needed for their operations. In addition, of the 27 functional 1D1F, 11 are involved in agriculture-related activities.	Initiate a process to review the existing trade areas in the agric value chain and validate the occupational standards with the Agric Sector Skills Body and CTVET for approval and subsequent implementation in selected TVET institutions.
4	Less than half (49%) of the public TIs are CBT accredited.	The paradigm shift from traditional to CBT approach of TVET delivery started about a decade ago, but is not fully implemented in the TVET Institutions.	The labour market in the Ashanti region may lack the technical skills needed.	The Service could consider reviewing the CBT implementation and developing appropriate guidelines and policies accordingly.

RECOMMENDATION			PRIORITY
UNICEF	**OTHER DPs**	**PRIVATE-PUBLIC-PARTNERSHIP**	
Support through technical and financial resource to establish TIs in districts that do not have them after further discussions.	Interested DPs may partner with the government to establish TVET institutions in districts that do not have them after further discussions.	Build partnerships to establish modern and trade-specific TIs in some of the districts without TIs.	Medium
Finance the development or validation of occupational standards for selected agric value chain. Discuss with the TVET Service to finance the training of selected facilitators from TVET institutions to be trained as facilitators in the selected agricultural value chain. Adopt some TVET institutions in the Ashanti region and finance selected learners for training on specific agricultural value chains.	Finance the training of trainers in selected TVET institutions in the Ashanti region on the emerging technologies. Interested DPs could in partnership with some TVET institutions in the Ashanti region and finance learners for training in these skills.	Build partnerships to establish modern and trade-specific TIs in some of the districts without TIs with a focus on training in green and digital skills.	High
Finance the development or validation of occupational standards for selected agric value chain. Discuss with the TVET Service to finance the training of selected facilitators from TVET institutions to be trained as facilitators in the selected agricultural value chain. Adopt some TVET institutions in the Ashanti region and finance selected learners for training on specific agricultural value chains.	Interested DPs could also finance the training of trainers in selected TVET institutions in the Ashanti region in agric value chain. Adopt some TVET institutions in the Ashanti region and finance some learners for training on selected agric value chain.	Agric Sector Body to support the validation of agric related occupation standards for training in some selected TVET institutions.	High
Finance the review of the implementation of the CBT approach of TVET delivery for policy direction.			High

S/N	FINDING	IMPLICATIONS FOR ASHANTI REGION		
		TVET /LEARNING ETC.	LABOUR MARKET	TVET SERVICE
5	There are more females enrolled in the private TIs than male learners, however, there are more males in the public TIs than females.	There will be limitations in employing females in the labour market.	Enterprises are unable to employ females.	Make a conscious effort to enrol more females in the male-dominated trade in the public TVETs. Create awareness programmes.
6	Almost all the TVET institutions do not have the required number of workshops.	Quality and relevance of training delivery may be compromised due to the lack of workshops.	Graduates from the TVET institutions will be limited in practical skills and competencies.	Efforts should be made through the Ministry of Education to build and equip workshops for the TIs. There could be a roadmap to do it in phases.
7	Although 95% of Heads/ Facilitators have undergone CBT facilitation training, only 24% of institutions are using the CBT approach. 69% are using CBT and traditional methods.	The paradigm shift from traditional to CBT approach of TVET delivery started about a decade ago, but is not fully implemented in the TVET institutions.	There will be a lack of skilled technical staff for trades that are not delivered in the CBT mode.	The Service could consider reviewing the CBT implementation and developing appropriate guidelines and policies accordingly.
8	32% of respondents pointed out the lack of materials and facilitators, highlighting concerns about inadequate teaching aids and a shortage of qualified facilitators.	Quality and relevance of training delivery may be compromised due to the lack of Teaching and Learning Materials (TLM) and the lack of qualified facilitators.	Graduates from the TVET institutions will be limited in practical skills and competencies.	Efforts should be made through the Ministry of Education to improve the supply of TLM and to upgrade the competencies of the facilitators.
9	91% of the 57 respondent institutions provide opportunities for learners to embark on internships and Workplace Experience Learning (WEL) to enhance their skills and knowledge.	Learners can have first-hand experience of the world of work.	Employers have the opportunity to collaborate with TVET institutions for the implementation of the WEL and assess potential employees.	WEL as a component of the CBT should be formalised in the proposed review of the CBT implementation.
10	The most sought-after skill in the future workforce is the ability to operate modern machinery and Artificial Intelligence (AI), with 54% of respondents identifying it as a crucial area of expertise.	More digital skills and operations in modern equipment will be needed in the next five years.	Employers will be recruiting more people with digital skills and competencies in modern equipment operations.	The Service could initiate a process to review the existing trade areas in digital skills and validate the occupational standards with the ICT Sector Skills Body and CTVET for approval and subsequent implementation in selected institutions.
11	55% of past trainees surveyed are employed, 18% are pursuing further education, and 27% are unemployed.	The training delivery is meeting some demand in the labour market.	Employers are willing to employ graduates from the TIs in specific trades such as fashion trades.	There is the need to implement work readiness programmes to facilitate school-to-work transition. Entrepreneurship programmes should be intensified to enhance self-employment initiatives.

RECOMMENDATION			PRIORITY
UNICEF	OTHER DPs	PRIVATE-PUBLIC-PARTNERSHIP	
Consider financing a programme to encourage females into TVET for example solar engineering for women.	Consider a programme to finance the entry of some females into TVET.		Medium
Financing the construction and equipping of some workshops for specific trades.	Interested DPs could also consider financing the construction and equipping of some workshops for specific trades.	Private companies should establish workshops for specific trades that align with their operations.	
Finance and provide technical support to the review of the implementation of the CBT approach of TVET delivery for policy direction.	Support the review and implementation of the CBT.		High
Finance the provision of infrastructure for selected TVET Institutions.	Interested DPs could also consider financing the provision of infrastructure for selected TVET Institutions.		High
Finance the review of the implementation of the CBT approach, including the WEL of TVET delivery, to inform policy direction.			High
Finance the development/ validation of occupational standards for digital skills. Discuss with the Service to finance the training of selected facilitators from the TVET institutions to be trained as facilitators in digital skills. Partner with some TVET institutions in the Ashanti Region and provide financial support for learners to receive training in digital skills.	Interested DPs could also finance the training of trainers in selected TVET institutions in the Ashanti Region on digital skills. Interested DPs could adopt some TVET institutions in the Ashanti Region and finance some learners for training on digital skills.	Establish partnerships to create modern, trade-specific training initiatives in districts lacking TI, with a focus on training in digital skills.	High
Support with modules on school-to-labour market transition.	Other DPs to support with modules on school-to-labour market transition.		High

S/N	FINDING	IMPLICATIONS FOR ASHANTI REGION		
		TVET /LEARNING ETC.	LABOUR MARKET	TVET SERVICE
12	41% attributed their jobs to school recommendations through participation in WEL.	This highlights the importance of the TVET institutions in job placements.	Strengthen the linkage between training providers and employers.	WEL could be institutionalised through a policy direction for TVET training delivery.
13	Among those employed, 61% are in wage employment, and 39% are self-employed.	The private sector employs more TVET graduates as paid employees.	Employers could collaborate more with the TVET institution on the development of occupational standards for training delivery to meet their requirements.	The Service could collaborate more with the employers on the development of occupational standards for training delivery to meet the requirements of the employers.
14	The primary challenges for enterprises to hire competent staff include a lack of prior experience (61%), high wage expectations (59%).	Newly graduated TVET learners may find it challenging to get wage-employment.	Limited resource pool for hiring.	Discuss with employers the possibility of accepting WEL as part of work experience. Facilitate employer-employee dialogues to align wage expectations with industry standards.
15	Set up of skills anticipation for labour market information and graduate tracer studies or tracker for the region.	Skills anticipation shall help both TIs and trainees to understand the trends in employment.	Comprehensive understanding of workforce requirements through digital platforms.	Review and invest in skills anticipation and graduate tracker to complement Labour Market Information System (LMIS).
16	Informal Apprenticeship Training (IAT) provides straight pathways to employment even though the number trained at a time is minimal.	The IAT system needs to be supported and strengthened.	Most graduates may be employed in the informal sector.	Efforts must be made to provide capacity-building programmes for the MCPs and facilitate their assessment and certification using the RPL approach.
17	Informal Apprenticeship training (IAT) is continuously not following a structured curriculum despite capacity-building programmes offered by CTVET.	Continuous reliance on self-styled delivery on own experience and knowledge may affect quality of delivery.	The labour market will lack quality service delivery.	Strengthened collaboration with the sector and enforce the use of structured outline to improve quality delivery. This will benefit formal trainees who go the informal sector for WEL programmes.
18	There is a high skills gap and skills mismatch in the agricultural sector.		Enterprises will not get enough skilled agriculture personnel to employ.	Increase agriculture training in the TIs.
19	There is a high skills gap and skills mismatch in the ICT subsector.		Enterprises will not get enough skilled ICT personnel to employ.	Increase ICT training in the TIs.

RECOMMENDATION			PRIORITY
UNICEF	OTHER DPs	PRIVATE-PUBLIC-PARTNERSHIP	
Support in institutionalization.			Medium
Support in entrepreneurship programmes that provides training and financing to graduates to set up their business.		Collaborate to establish a framework for employing more qualified graduates from TVET institutions.	Medium
Support in dialogues and engagement for placements.		Encourage companies to create trainee roles and reduce experience barriers for fresh graduates. Ensure Wage Transparency Facilitate employer-employee dialogues to align wage expectations with industry standards.	High
Support in regional pilot for skills anticipation and graduate tracker. The skills anticipation shall provide insights based on upcoming projects and reported manpower requirements.	Support in creating an ecosystem for making available manpower requirement and skills more transparent.		Medium
Support capacity-building programmes for MCPs.			High
Support in programmes to build capacity of MCPs.			High
Finance agriculture training in selected TIs.		Collaborate with TIs for relevant training delivery in the agriculture sector.	High
Finance ICT training in selected TIs.		Collaborate with TIS for relevant ICT training.	High

7

CONCLUSION

This study highlights the significant gaps and mismatches between the skills provided by TVET institutions and the demands of the labour market in the Ashanti Region of Ghana. The findings emphasise the need for a strategic alignment between TVET programmes and industry requirements to enhance employability, foster economic growth, and reduce unemployment, particularly among youth and women.

Aligning TVET training with the needs of key sectors such as agriculture, industry, services, ICT, and retail is critical for improving the employability of graduates. Addressing the identified challenges, such as inadequate workshop facilities, limited access to TVET in underserved districts, and the need for more qualified trainers, will require focused investments and policy reforms. Moreover, fostering closer collaboration between TVET institutions, industry stakeholders, and government agencies is essential for ensuring the relevance and sustainability of the training provided.

By addressing these gaps and investing in the future workforce, Ghana's Ashanti Region can capitalize on its economic potential, increase industrialization, and contribute to achieving the goals set in the government's Vision 2057 for a prosperous and self-reliant nation.

While this study provides valuable insights into the TVET landscape in the Ashanti Region, several limitations must be acknowledged:

Data Constraints: The study faced challenges with data availability and completeness. Limited access to certain regional datasets and inconsistencies in the data reported by some institutions may have affected the robustness of the analysis.

Logistical Challenges: The study was impacted by logistical issues, including time constraints and difficulties in reaching remote districts, which affected the comprehensiveness of the survey and focus group discussions.

Scope of Regional Coverage: Although the study covered 43 districts in the Ashanti Region, it did not extend to the entire region's population, and some districts may have been underrepresented, limiting the generalizability of the findings.

Stakeholder Representation: While the study engaged a wide range of stakeholders, including TVET institutions, enterprises, and government agencies, it is possible that some key voices, particularly from smaller enterprises or marginalized groups, were not fully captured.

Evolving Industry Needs: The rapidly changing nature of industries, especially in sectors like ICT and digital technologies, may mean that some of the skill demands identified in this report may evolve over time, requiring continuous monitoring and updates.

Despite these limitations, the findings provide a solid foundation for addressing TVET challenges in the Ashanti Region and offer actionable recommendations for improving the alignment of skills training with labour market needs.