

National TVET Industry Assessment Report



**National Labour Market
Skills Project (NLMPSP)**

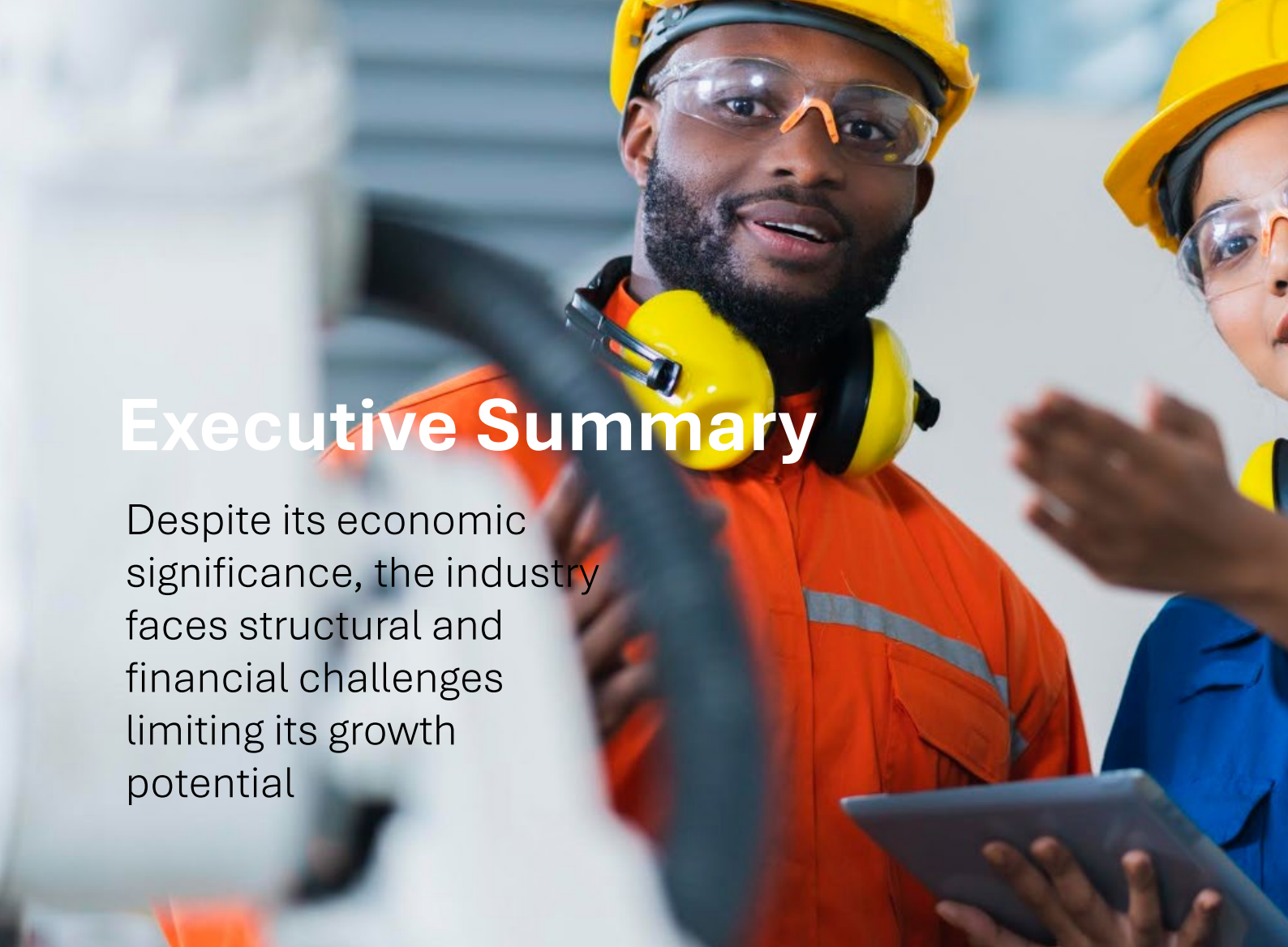
Shaping Tomorrow's Skills Today



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ACRONYMS

AAIP	Arena Animation International Programme
AI	Artificial intelligence
BYAC	BOSCO Youth Agricultural Centre
CEOs	Chief Executive Officers
DIVT	Directorate of Industrial and Vocational Training
ECESWA	Examination Council of Eswatini
ECODEC	Eswatini Cooperative Development College
ECOT	Eswatini College of Technology
EGCSE	Eswatini General Certificate of Secondary Education
EPCSE	Eswatini Prevocational Certificate of Secondary Education
EQA	Eswatini Qualification Authority
EQF	European Qualifications Framework
ESEPARC	Eswatini Economic Policy Analysis and Research Centre
ESHEC	Eswatini Higher Education Council
EVs	Electric vehicles
GoE	Government of Eswatini
HVAC	HVAC (Heating, Ventilation, and Air Conditioning)
IABs	Industry Advisory Boards
ICDF	International Cooperation and Development Fund
ICT	Information and Communication Technology
IMF	International Monetary Fund
ISEH	Information Security and Ethical Hacking
KIIs	Key Informant Interviews
MITC	Manzini Industrial Training Centre
MoET	Ministry of Education & Training
MoLSS	Ministry of Labour and Social Security
MoU	Memorandum of Understanding
NDS	National Development Strategy
NGOs	non-governmental organisations
NLMSP	National Labour Market Skills Project
PRSAP	Poverty Reduction Strategy and Action Plan
SADC	Southern African Development Community
SADCQF	Southern African Development Community Qualifications Framework
SDGs	Sustainable Development Goals
STEM	Science, Technology, Engineering, and Mathematics
TVET	Technical and Vocational Education and Training
VID	Vocational Instructor Diploma



Executive Summary

Despite its economic significance, the industry faces structural and financial challenges limiting its growth potential

The TVET Industry Needs Assessment undertaken as part of the National Labour Market Skills Project (NLMSP) in Eswatini provides an in-depth analysis of the country's Technical and Vocational Education and Training (TVET) system. This study examines the critical challenges facing Eswatini's workforce development, with a focus on the alignment between TVET programs and the needs of the labour market, as well as the effectiveness of existing certification processes. It also evaluates the TVET Skills Certification Enhancement Project, which seeks to improve the trade testing system in Eswatini.

The study finds that TVET graduates are predominantly employed in fields like construction and building maintenance, which account for more than half (56.4%) of TVET graduates' employment. High-demand industries such as ICT and energy, however, employ only a small proportion of TVET graduates, 0.4% and 4.8%, respectively. The

study also highlights the issue of gender inequality in TVET participation. Women make up just 38.9% of TVET graduates, and their participation is particularly low in traditionally male-dominated sectors such as engineering and construction.

In terms of institutional capacity, the study reveals that Eswatini's TVET sector is heavily reliant on a small number of institutions, with Eswatini College of Technology (ECOT) enrolling nearly 46.1% of the nation's TVET students. Smaller institutions face significant challenges in attracting students and providing quality training, particularly due to limited infrastructure and resources. TVET curricula is seen to be lagging in terms of modernisation and upgrading and needs to strengthen elements of soft-skill development, practical learning and internship placement for graduates. Thus, strengthening these institutions through increased investment and fostering partnerships with private sector

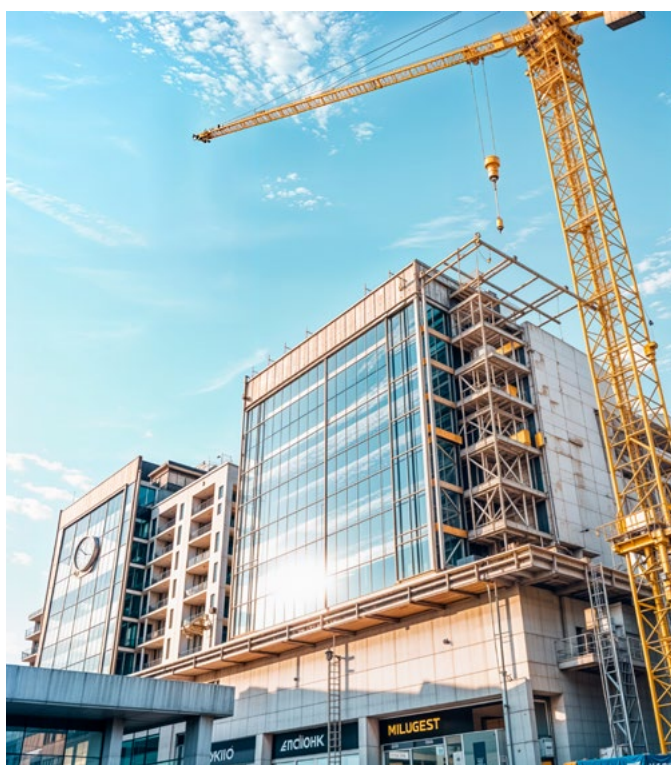
stakeholders will be essential to ensuring more equitable access to high-quality TVET education.

The evaluation of the TVET Skills Certification Enhancement Project reveals that the project has been effective in achieving its targets, however, significant gaps are observed in the participation of learners in lifelong learning programmes. Nevertheless, the impact of an improved trade testing system, through the development of relevant trade testing materials and infrastructure support has proven productive in producing a cohort of graduates that have been able to transition to employment (66.9%) and self-employment (26.8). The project has also resulted in increased income, improved confidence in trades and employment opportunities/promotion. Thus, more than 80% of trade tested graduates rate the project satisfactory on a number of elements, including facilities, processes, support, facilitation, assessments, and overall impact.

Some of the trades identified in the study as in-demand include skills such as bricklaying, civil engineering and building studies in construction, and electrical wiring, electrical engineering, civil engineering, welding, and carpentry. Emerging and future skills demand

will increase for specialised high-level technical fields such as robotics, artificial intelligence (AI), automation; digital skills (ICT, and cybersecurity); engineering; and trade-related skills to name a few.

The study's recommendations centre on improving the alignment between TVET programs and labour market demand. Improving curriculum development, enhancing gender inclusivity and expanding trade certification to other trades. Institutional capacity needs to be strengthened by increasing resources for smaller training institutions and fostering collaboration between public and private sector entities to expand opportunities for training and skills development across the country. Furthermore, the TVET certification system should be modernised through the introduction of modular, competency-based certification models and the regular updating of trade testing systems to reflect current industry demands. The findings and recommendations offer a roadmap for aligning TVET programs with the needs of the labour market and ensuring that Eswatini's workforce is well-equipped for the challenges of the future.



Quick Stats

- 56.4% of TVET graduates work in construction and building maintenance.
- Only 0.4% are employed in ICT, and 4.8% in the energy sector.
- Women make up just 38.9% of TVET graduates.
- 46.1% of TVET students are enrolled at ECOT.
- The TVET Enhancement Project started in 2021 to upgrade facilities and align standards.



01

Background

TVET is key to unlocking Eswatini's economic potential and addressing youth unemployment. With skills rapidly changing and industry demands evolving, aligning vocational training with real-world needs has never been more critical. This assessment explores Eswatini's TVET sector, evaluating current gaps, policy frameworks, and opportunities for impactful reform and investment.

Background

The education sector is a pillar of Eswatini's socio-economic development, driving human capital formation, poverty reduction, and sustainable growth.

The National Labour Market Skills Project (NLMSP) is a collaborative effort between the Taiwan Technical Mission in Eswatini, the Eswatini Higher Education Council (ESHEC), and the Eswatini Economic Policy Analysis and Research Centre (ESEPARC) to conduct an industry skills assessment. The assessment seeks to understand the labour market skills demand and supply and anticipate future skills needs for different trades and sectors in the economy.

The NLMSP builds on a foundation of prior research, including the 2021 Skills Audit Report, which revealed mismatches between the skills imparted by Eswatini's education system and the needs of its industries. According to the Eswatini Integrated Labour Force Survey (EILFS) 2023, youth unemployment for individuals aged 15-35 stands at 48.7% presently with overall unemployment at 35.4%. To address the unemployment challenge, the government of Eswatini through national policies including the Eswatini Government Plan of Action

2025-2029 and National Development Plan 2022/23 – 2027/28 emphasise the need to improve human capital by transforming the vocational education system. To be precise the Plan of Action emphasises the need to upgrade vocational training institutions and grade testing to professionalise training and improve the employability of graduates.

As such, this report provides a foundational benchmark for the development and improvement of Eswatini's trade testing and grading system. It provides an assessment of Eswatini's TVET trade testing system to ensure its effectiveness, alignment with industry standards, and its role in developing students' skills and competencies. Ultimately, the study aims to enhance employability and support industrial productivity by aligning TVET outcomes more closely with labour market demands. Therefore, an examination of labour market skills demand was also conducted to assess present and future skills needs, prioritising high-growth industries such as agriculture, construction, ICT, hospitality, manufacturing, textile and apparel, and mining, amongst other sectors.

1.1 Introduction

Technical and Vocational Education and Training (TVET) plays a pivotal role in addressing labour market dynamics, particularly in developing countries where skilled workforce development is crucial for economic growth.



Quick Stats



39% of employee skill sets will be transformed or outdated between 2025 and 2030. (World Economic Forum, 2025)



4 sectors, electrical & mechanical engineering, auto repair, and hospitality, are most affected by skill mismatches. (Ministry of Education and Training, 2023)

The Future of Jobs Report 2025 highlights the changing demand and supply for skills in this age and the near future. Stating that on average a fifth (39%) of employee existing skill sets will be transformed or become outdated between 2025-2030 (World Economic Forum, 2025). In Eswatini, where youth unemployment presents a significant challenge, the development of a robust, industry-aligned TVET sector has become essential for equipping young people with relevant skills, promoting economic productivity, and maintaining social stability.

While the National Development Strategy and post-COVID-19 Economic Recovery Plan of Eswatini recognise TVET as crucial for economic growth (Government of Eswatini, 2020), Sustainable Development Goals 4 and 8 emphasise equitable education and decent work. The African Union's Continental Education Strategy for Africa 2016-2025 (CESA) contains specific provisions on TVET under Strategic Objective 8 which seeks to expand TVET. The CESA aims to make human resource development a top priority, while the African Continental TVET Strategy 2025-34 focuses on transforming TVET through close alignment with the broader development agenda of the African Union, value-based excellence.

However, the reality of implementation remains challenging in Eswatini, with the country ranking 136th out of 139 countries in the IMF's Skills Mismatch Index (International Monetary Fund, 2022). This reflects a misalignment in skills supply and demand, particularly evident in high-potential sectors such as electrical engineering, mechanical engineering, auto repair, and hospitality according to the Ministry of Education and Training (2023). The International Labour Organisation (ILO) (2022) also acknowledges the skill mismatches and calls for intensifying efforts towards building an agile, industry-relevant TVET system.

The Eswatini TVET Policy of 2020 also highlights limited industry alignment, outdated curricula, and insufficient infrastructure as challenges for the TVET sector. The policy emphasises the urgent need for modernisation and expansion of the TVET sector to better align with local

industry requirements and global best practices.

In response to the directives of national strategies, Eswatini introduced the TVET Enhancement Project to address critical gaps in vocational training through strategic interventions focused on improving infrastructure, updating curricula, and strengthening quality assurance mechanisms in the TVET sector. The project aims to build relevant capacities in training institutions and trade testing to ensure harmonisation, between skill development – industry demand and certification. Therefore, the industry assessment seeks to evaluate Eswatini's TVET sector by examining industry labour market demand and assessing the trade testing and grading system implemented by the Directorate of Industrial and Vocational Training (DIVT) in Eswatini. This evaluation addresses the increasing importance of technical and vocational skills in driving economic growth and advancing social mobility in developing economies.

1.1.1 Purpose of the Assignment

The purpose of this assignment is to comprehensively assess Eswatini's TVET certification process to ensure its effectiveness, alignment with industry standards, and impact on students' skills development. The evaluation analyses the extent to which the TVET certification process meets industry needs, focusing on trades such as electrical and mechanical engineering, auto repair, and tourism and hospitality. Additionally, it identifies gaps and opportunities for improvement, assessing the capacity of the TVET system to support emerging skills, and evaluating the relevance of certificates to industry demand.

The study seeks to provide actionable recommendations to enhance the certification process, grading system, and quality assurance measures, thereby strengthening the alignment of TVET outcomes with workforce needs in Eswatini.

1.1.2 Scope of Work

The assignment comprehensively evaluated Eswatini's TVET certification process using the OECD-DAC criteria to assess its relevance, effectiveness, efficiency, impact, and sustainability. This evaluation determined the alignment of the certification process with industry standards and its contribution to developing students' skills and competencies. The scope included an assessment of the immediate impact and effectiveness of the Eswatini Technical and Vocational Skills Certification Enhancement Project, focusing on high-demand trades such as electrical engineering, mechanical engineering, auto repair, and tourism and hospitality. The study also examined the efficiency of the current grading system and its relevance to industry expectations, alongside a tracer survey of graduates certified in recent years. A comparative desktop review of trade testing systems across Eswatini, Southern Africa, and the continent further contextualised regional best practices, highlighting areas for improvement and sustainability. Emerging and new trades relevant to Eswatini's development priorities were identified for future certification to enhance relevance and industry alignment. Additionally, the study evaluated the sustainability of the pre-vocational skills development system and its integration with trade testing, producing actionable recommendations to improve the certification process, grading, and quality assurance within the TVET framework.

1.1.3 Objectives of the Study

The major objective of this study is to comprehensively evaluate Eswatini's TVET certification process to ensure its effectiveness, alignment with industry standards, and its role in developing students' skills and competencies. Ultimately, the study aims to enhance employability and support industrial productivity by aligning TVET outcomes more closely with labour market demands.

Primary Objectives

1. Conduct an evaluation of the Eswatini Technical and Vocational Skills Certification Enhancement Project, focusing on electrical engineering, mechanical engineering, auto repair, as well as tourism and hospitality trades:
 - a. Evaluate the immediate impact and effectiveness of the project according to the OECD-DAC evaluation criteria.
 - b. Assess the implementation and relevance of the life-long learning programme.
 - c. Evaluate the effectiveness of the certification planning and standards development process.
 - d. Assesses the current grading system to determine its effectiveness in accurately reflecting students' skills and competencies.
 - e. Analyse the existing procedures for TVET certification to ensure alignment with industry standards and best practices.
2. Conduct a tracer survey of graduates who have grade-tested their trades in the past 5 years focusing on electrical engineering and mechanical engineering graduates.
3. Conduct a desktop review of the trade testing system of Eswatini, Southern Africa, and the continent.
4. Identify emerging and new skills/trades that can be registered for trade testing in Eswatini in alignment with the country's priority development areas.
5. Conduct an assessment of the pre-vocational skills development system in Eswatini and its linkages to trade testing; and
6. Develop actionable recommendations for improving the TVET certification process, grading system, and overall quality assurance measures.



02

Technical vocational education and training

This section explores global and regional trends shaping skills demand in the TVET sector. It highlights how technological advancements, sustainability goals, and economic shifts are redefining workforce needs, leading to the emergence of new trades and the evolution of training programmes to equip learners with relevant, future-ready skills.

Technical vocational education and training

TVET empowers underserved populations, boosts productivity, and addresses unemployment by aligning practical training with evolving industry demands.

2.1 Global trends and practices

2.1.1 Global and regional changes in skills demand in the tvet sector

The TVET sector is undergoing a transformative shift globally and regionally, driven by advancements in technology, evolving labour market demands, and efforts to achieve economic and environmental sustainability. These changes are redefining workforce requirements, leading to the emergence of new trades while making others obsolete.

Globally, the Fourth Industrial Revolution has introduced technologies such as artificial intelligence (AI), robotics, and the Internet of Things (IoT), reshaping industries and necessitating new skill sets among workers. For example, in the renewable energy sector, there is a rising demand for technical skills in solar panel installation, wind turbine maintenance, and energy-efficient construction. Germany's focus on renewable technologies exemplifies how robust training programmes can support energy transition strategies and create jobs in emerging green sectors. Similarly, digital transformation across industries has driven demand for ICT-related skills, including cybersecurity, software development, AI programming, and data analysis. Countries like Singapore have integrated these competencies into TVET curricula, preparing graduates for high-demand roles. The healthcare sector is also evolving, with increasing reliance on telemedicine and digital health tools creating opportunities for medical technicians and digital health specialists, particularly during and after the COVID-19 pandemic.



Quick Stats



58.9% of Eswatini's rural population lives below the national poverty line, making TVET financially inaccessible for many (World Bank, 2020).



306 youth were trained in TVET skills by World Vision in 2023, including plumbing, electrical wiring, catering, and more.

At the same time, automation and robotics are rendering traditional roles such as manual assembly-line work and basic data entry obsolete, as industries shift toward more technologically advanced operations.

In Africa, TVET skills demand aligns with the continent's priorities of industrialisation, economic diversification, and sustainable development. Agriculture, a cornerstone of African economies, is transitioning from traditional subsistence farming to modern, technology-driven practices. There is growing demand for precision farming, agroecology, and agribusiness management to boost productivity and ensure food security.

Rwanda, for example, has embraced smart farming technologies, training youth in drone usage and data-driven crop monitoring. Urbanisation is also driving demand for construction skills, particularly in green building techniques and smart infrastructure. In South Africa, TVET institutions are integrating energy-efficient construction practices to address the needs of sustainable urban development. ICT is another rapidly

growing sector, with coding, software development, and cybersecurity becoming essential due to digital transformation. Kenya's Ajira Digital Program has been a model for equipping youth with ICT skills to tap into emerging opportunities. The tourism sector, vital in Africa, has seen an increase in demand for ecotourism and sustainable travel skills. Botswana has successfully trained TVET graduates to lead community-based ecotourism initiatives, enhancing local economies and promoting environmental conservation.

Within the Southern African Development Community (SADC), countries such as Namibia and Botswana are experiencing shifts in labour market demands, with emphasis on renewable energy, ICT, and advanced manufacturing. Namibia has prioritised renewable energy training to address skills gaps, while Botswana has focused on ICT education to support its growing services sector. Employers across the region are seeking higher levels of certification and trade testing, with an emphasis on technical problem-solving, environmental awareness, and digital proficiency.

 **Table 2.2.1: Key Sector-Specific Skills and Trade Changes**

Sector	Emerging Trades	Obsolete Trades	Required Competencies
Renewable Energy	Solar panel installation, wind turbine maintenance	Fossil fuel equipment repair	Technical skills, environmental awareness
ICT	Cybersecurity, software development, AI programming	Basic data entry	Problem-solving, coding, data analysis
Healthcare	Medical technicians, telemedicine support	Manual health record management	Clinical knowledge, digital tools proficiency
Agriculture	Precision farming, agroecology	Traditional subsistence farming	Data-driven decision-making, sustainability
Construction	Green building techniques, smart infrastructure	Manual bricklaying	Advanced construction methods, technology use
Tourism	Ecotourism guides, digital marketing for tourism	Traditional tour operators	Customer service, digital communication

For Eswatini, these global and regional trends present both challenges and opportunities. The country must align its TVET programmes with emerging sectoral demands. Digital skills are critical for preparing graduates for roles in ICT, logistics, and e-commerce. Eswatini's TVET curriculum must integrate competencies in coding, data analysis, and software development to meet labour market expectations. The integration of green skills into TVET curricula is also essential as Eswatini seeks to participate in renewable energy projects and adopt sustainable agricultural practices. Skills in solar energy systems, wind turbine maintenance, and sustainable construction will position the country to capitalise on opportunities in the green economy.

Higher-level certification and competent trade testing are vital for ensuring that TVET graduates meet industry requirements. Investments in modernising TVET infrastructure, including state-of-the-art facilities and equipment, are necessary to provide students with practical, industry-relevant training. Furthermore, sectoral training aligned with Eswatini's economic priorities—such as agriculture, tourism, and renewable energy—can foster inclusive growth and economic resilience. By addressing these priorities, Eswatini can ensure its TVET sector supports sustainable development and meets the demands of a rapidly evolving labour market.

2.1.2 Best Practices in Certification Planning and Standards Development Processes in the TVET Sector

Effective certification planning and standards development are fundamental to ensuring the quality and relevance of Technical and Vocational Education and Training (TVET) systems. Trade testing and certification are pivotal components of this process, serving distinct but interconnected functions. According to the UNESCO Strategy for TVET (2022-2029) trade testing evaluates practical, trade-specific skills, assessing an individual's capability to meet industry standards. It serves

as a valuable pathway for both graduates and non-graduates, including those with informal learning or experiential backgrounds, to gain formal recognition of their skills. In contrast, certification encompasses a broader spectrum of competencies, combining theoretical knowledge with practical expertise. Certifications are structured as formal acknowledgments of education or training completion and are aligned with national or regional qualification frameworks to ensure cross-sector and cross-border recognition (ILO, 2021).

The Southern African Development Community Qualifications Framework (SADCQF) provides a meta-framework to harmonize national qualification systems across member states, enhancing the portability and comparability of skills within the region. Through emphasising occupational standards, the SADCQF supports the mutual recognition of qualifications, enabling skilled workers to access employment opportunities across borders (SADC, 2022). Aligning TVET certification standards with the SADCQF enhances credibility and facilitates cross-border mobility (UNESCO-UNEVOC, 2022). Similar to the European Qualifications Framework (EQF), the SADCQF establishes shared criteria for certifications and trade tests, ensuring universal recognition of competencies within the region. For instance, a certified mechanical engineer in Eswatini should demonstrate standardised skills such as precision machining, equipment maintenance, and blueprint interpretation, while electricians should be assessed on wiring, diagnostics, fault analysis, and safety standards. ICT certifications, meanwhile, should cover skills in basic programming, cybersecurity, network management, and data analytics. Such alignment not only improves employability but also addresses regional skills shortages and fosters economic integration by developing a skilled, mobile workforce (European Commission, 2017; OECD, 2023).

Examples from African countries illustrate successful implementation of trade testing and certification frameworks. South Africa's Quality Council for Trades and Occupations (QCTO) oversees trade testing for specific trades, ensuring assessments reflect practical skills aligned with industry needs. Namibia has adopted a modular and competency-based approach, managed by the Namibia Training Authority (NTA), which allows workers to build qualifications progressively while maintaining strong links between secondary and TVET education. Botswana's trade testing system, overseen by the Botswana Qualifications Authority (BQA), ensures that assessments meet industry demands through practical, workplace-relevant criteria. Similarly, Tanzania's Vocational Education and Training Authority (VETA) integrates trade testing with competency-based education, preparing candidates for sectors such as manufacturing and construction through targeted assessments (OECD, 2023).

However, sustaining trade testing facilities requires a multifaceted approach involving resource mobilisation, strategic partnerships, and effective governance. Funding typically originates from government budgets, private sector contributions, donor funding, and candidate fees, ensuring sustainability and operational efficiency. Collaboration with industries is crucial for aligning trade testing with market needs and incorporating technological advancements. Training institutions also play a significant role by preparing candidates with curricula that meet certification requirements. Certified assessors, drawn from industry professionals and educators, are trained to evaluate candidates against standardised benchmarks, ensuring reliable and credible assessments (ILO, 2019). Advisory boards, consisting of representatives from government, industry, and education sectors, oversee the development and periodic review of standards. They guide resource allocation and ensure funds are efficiently used for equipment procurement, facility maintenance, and assessor training. This

structured, collaborative approach ensures the sustainability of trade testing facilities and their ability to produce a skilled, industry-ready workforce, supporting local and regional economic development (UNESCO-UNEVOC, 2022).

Pre-vocational systems are integral to creating seamless career pathways into TVET by introducing learners to foundational trade skills early. In Namibia and South Africa, vocational subjects are embedded in secondary school curricula, exposing students to practical skills and technical trades. These programs often allow learners to accumulate credits toward advanced certifications, bridging secondary education with formal vocational training institutions. For instance, students may achieve trade testing certification during or upon completing secondary school, which can later be upgraded through further education or on-the-job training. Modular certification frameworks in Namibia and Botswana facilitate progressive qualification building, enabling learners to adapt to shifting labour market demands over time (UNESCO, 2021).

In some developed countries, primary schools also foster foundational technical skills to support lifelong learning. For instance, in Taiwan, primary education includes practical activities like basic crafts, robotics, and STEM-related projects, encouraging problem-solving and hands-on learning at an early stage (Hsu et al., 2019). Although formal trade testing is introduced at the secondary level, early exposure helps students develop curiosity and foundational competencies, which later support transitions into technical education and careers (OECD, 2023).

To strengthen Eswatini's TVET sector, several best practices can be adopted. First, introducing a modular certification framework would allow learners to accumulate credits progressively, fostering lifelong learning. Second, expanding and strengthening pre-vocational programs at the secondary level could establish seamless pathways into TVET. Third, integrating digital and emerging

technology skills into trade testing standards would align qualifications with modern industry demands. Fourth, harmonizing trade testing standards with the SADCQF would enhance regional recognition and mobility. Finally, strengthening partnerships with industries and implementing regular reviews of standards would ensure the system remains responsive to labour market shifts and technological advancements. By adopting these measures, Eswatini can create a robust certification planning and standards development framework that enhances workforce competitiveness and supports sustainable economic growth (SkillsFuture Singapore, 2023).

2.2 Tvet in eswatini

2.2.1 The Role Of TVET In Economic Development

The TVET sector is integral to fostering economic growth and development. TVET prepares the workforce to meet the changing demands of the labour market by equipping individuals with practical skills and technical expertise directly relevant to various industries. The alignment of education with job requirements promotes productivity, economic diversification, and innovation, contributing to socioeconomic advancement and inclusive growth. According to UNESCO (2015), TVET strengthens the link between education and the labour market when programmes are designed to prepare students for real-world job demands. It reduces skill mismatches prevalent in economies with traditional educational pathways, ensuring students gain practical, hands-on skills aligned with industry needs. These mismatches often lead to high unemployment and low productivity due to a lack of job-ready individuals. Paryono (2013) highlights that TVET not only addresses immediate skill shortages but also fosters long-term economic growth by enhancing employability. Studies further suggest that TVET graduates experience smoother transitions from education to employment than their counterparts in non-vocational programmes, contributing to an

overall increase in economic productivity (Maclean & Wilson, 2009).

Beyond enhancing productivity, TVET supports social and economic mobility, particularly in developing economies. McGrath (2012) notes that TVET equips socio-economically disadvantaged populations with the skills needed for employment, reducing poverty and improving economic opportunities. For marginalised groups such as women and youth, vocational training is particularly empowering, enabling them to secure stable employment, achieve upward mobility, and attain financial independence. King and Palmer (2010) emphasise that TVET promotes inclusive growth by reducing inequalities, enhancing livelihoods, and fostering broader societal well-being.

Internationally, TVET systems have been effective in addressing immediate labour market needs and fostering economic resilience. For example, Finland's dual education system integrates classroom instruction with practical work experience, resulting in high employability and a productive workforce (UNESCO, 2015). Similarly, Costa Rica has tailored its TVET programmes towards sustainability, with green skills training preparing the workforce for roles in renewable energy and environmental management sectors. These examples demonstrate that well-designed TVET systems are not only capable of addressing immediate skill shortages but also contribute to long-term innovation and resilience in global economies. Despite its importance, TVET systems worldwide encounter challenges related to curriculum relevance, resource allocation, and alignment with industry needs. Aftab and Mohd (2012) identify persistent skills mismatches in many regions, where graduates often lack competencies required by employers. This disconnect hampers individual career prospects and stifles economic growth as industries struggle to find qualified personnel (Indarta et al., 2021).

Addressing these gaps requires responsive

TVET systems that continuously adapt their offerings to meet dynamic labour market requirements.

Malaysia, for example, has reformed its TVET system to modernise education and training approaches, integrating technology to prepare students for the digital economy. These reforms emphasise technical skills alongside critical thinking and problem-solving, fostering a workforce capable of adapting to future challenges and innovations across diverse industries. In Sub-Saharan Africa, TVET is a strategic tool for addressing socioeconomic challenges such as unemployment, poverty, and inequality. Countries like Eswatini, Botswana, Lesotho, and Namibia, have implemented targeted TVET initiatives to promote economic diversification and empower marginalised groups. Botswana has made significant investments to incorporate ICT training into TVET curricula, supporting its ambition to grow service and technology sectors. This has equipped young people with relevant skills for emerging industries, enhancing their employability and contributing to national economic growth.

Namibia, meanwhile, has aligned its TVET programmes with labour market needs in sectors such as tourism, mining, and manufacturing. Through industry collaboration, Namibia has reduced skills mismatches and improved job placement rates for graduates. Lesotho focuses on leveraging TVET for rural development, tailoring programmes to agriculture and small-scale entrepreneurship. These examples highlight how smaller economies are utilising TVET to address localised challenges while contributing to broader economic resilience.

In Eswatini, the TVET sector plays a crucial role in addressing national challenges such as high youth unemployment, limited economic diversification, and rural poverty. Youth unemployment remains a significant issue, with many young people unable to transition from education to the workforce due to skill mismatches and limited opportunities (EILFS, 2023). TVET programmes in Eswatini can bridge

this gap by equipping learners with industry-relevant skills and fostering entrepreneurship. TVET Skills Competitions globally and in the African region have showcased the capabilities of vocational trainees, raising awareness about the importance of technical careers and combating societal perceptions that undervalue vocational training compared to academic pathways. In 2023, World Vision successfully trained 306 youth in TVET skills, including plumbing, sewing, catering, welding, décor, electrical wiring, and upholstery. World Vision collaborated with vocational partners such as Sebenta National Institute, NASTIC, Buhle Catering, Lunyati Vocational Training Centre, JI Catering School, the National Health Training Centre (NHTC), and Women in Development (World Vision, 2023).

Despite these efforts, accessibility remains a pressing issue, particularly for rural populations. The lack of training facilities in remote areas exacerbates unemployment and poverty. Additionally, many families cannot afford to pay for their children in vocational training centres, despite the low fees. Without targeted interventions, such as subsidies or building rural training centres, these barriers will continue to limit access, misaligned curricula will also hinder the effectiveness of TVET in Eswatini. Whereas, funding limitations compound these issues, insufficient resources have resulted in outdated facilities, inadequate teacher training, and limited use of innovative teaching methods. The absence of modern equipment and technology limits practical training opportunities, which are critical for skill development (World Bank, 2020). This issue is not unique to Eswatini; similar infrastructural shortcomings have been observed globally and regionally, impeding the delivery of quality vocational education (UNESCO, 2003). Although scholarships and targeted programmes aim to promote inclusivity, the participation rates among marginalised groups, including people with disabilities and those from low-income backgrounds remain low (SADC, 2022).

2.2.2 Pre-Vocational Education (PVE)

Pre-vocational skills development in Eswatini was meant to counter the ever-skyrocketing unemployment, particularly among the youth. The Pre-Vocational Education (PVE) program in Eswatini, initiated in 2002, aims to equip secondary school students with practical skills for the labour market. The programme's main goal was to prepare secondary school-age learners for selecting a career or line of training by introducing them to the resources, equipment, and skills associated with different occupations (Mujumdar, 2012). It includes subjects like Business Studies, Entrepreneurship, Information and Communications Technology (ICT), and technical disciplines. The pre-voc programme was piloted in 16 selected high schools in the country.

However, even after 19 years, the pre-vocational education programme has not yet been expanded to other schools, while the 16 schools that participated in the pilot testing continue to offer the programme. Some of the challenges associated with the lack of implementation of the programme are related to the lack of progression and career pathways for learners. There are no linkages between the requirements of tertiary institutions, including TVET centres, with the programmes undertaken by learners in pre-voc. Dladla et al (2021) point out that pre-voc also becomes a challenge for students who want to improve their academic performance through upgrading, as they end up enrolling in different curricula, demonstrating gaps in progression within different high school programmes.

Other studies (Mpofu & Nyoni, 2022) also posit that significant challenges with the programme are related to the lack of funds to run the programme, the inadequacy of up-to-standard teaching and learning materials, inadequate time for practical work as students also learn other core subjects, the inadequacy of facilities and equipment, and lack of staff development as well as poor teaching and learning strategies. Further challenges point to demotivated instructors, pre-vocational

education teachers' lack of commitment, non-pre-vocational teachers' negative attitudes towards pre-vocational education, and the substitution of untrained teachers for pre-vocational trained teachers.

In comparison, Mozambique has achieved success by integrating a competency-based curriculum in its Technical and Vocational Education and Training (TVET) system, which enhances students' job readiness. Germany's dual education model, combining classroom learning with on-the-job training, ensures alignment with labour market demands, leading to low youth unemployment rates. For Eswatini, aligning the PVE curriculum with labour market needs, improving teacher training, expanding resources, and fostering industry partnerships are key to enhancing the program's effectiveness and its contribution to employability (World Bank, 2024).

The onus is on the government to carefully review its priorities when it comes to prevocational education and reinvest in it to ensure that prevocational administrators are complying with the prevocational education programme through continuous training. Deliberate efforts should also be made to expand access to vocational skills for all learners, to ensure that they build basic competencies from a tender age. This should also be linked with the trade testing system to create career pathways for different types of learners, including those who are not able to complete their education. However, this calls for a reform in application requirements for trade testing, as it requires that learners should have graduated from High School and completed two (2) years outside the education system.

2.2.3 The Trade Certification Process

Trade testing serves as a fundamental component of Eswatini's TVET certification system, acting as the primary mechanism to validate students' skill levels in their respective trades. Trade testing is widely recognised in literature as an objective and standardised approach to assessing competencies, as it

allows evaluators to measure candidates' theoretical knowledge and hands-on abilities. As explained by Eicker et al. (2017), standardised testing within TVET systems enhances certification credibility, as it signals a consistent level of skills and knowledge to potential employers.

Moreover, trade testing also supports workforce readiness by helping identify specific skills where further development may be needed before students enter the labour market. In line with UNESCO's (2019) recommendations, trade testing contributes to quality assurance by requiring students to demonstrate practical skills in controlled environments. Literature on TVET emphasises the importance of integrating apprenticeships into certification processes to provide a more holistic training experience that balances classroom learning with real-world skills acquisition (Eichhorst et al., 2019).

The Technical and Vocational Education and Training (TVET) certification process in Eswatini is centrally administered by the Directorate of Industrial and Vocational Training (DIVT) under the Ministry of Labour and Social Security. Certification procedures typically encompass a sequence of trade tests and assessments designed to verify both practical and theoretical competencies of students across various trades. According to DIVT guidelines, certification involves the development of curricula aligned with national skill standards, the administration of practical and theoretical examinations, and the issuance of certificates to candidates who meet competency benchmarks.

As per the Industrial and Vocational Training Act 1982, the trade testing system operates through a structured framework encompassing a Trade Testing Committee that appoints Trade Testing Panels with the duty to set trade standards, formulate, and conduct trade tests. The panel of assessors consist of qualified members from various sectors, including technical training institutions, government or parastatal sectors, and private industry representatives ensuring that graduates possess the skills required for successful job performance

and meet industry standards (DIVT, 2020). Currently, over 25 trades are covered by the trade testing system with certification levels categorised into three grades (Grade I-Grade III) for varying levels of competency. Trades such as Electrical Wireman, Plumbing, and HVAC ((Heating, Ventilation, and Air Conditioning)) are popular, while less popular trades include Cooking and Spray Painting. The latter may lack comprehensive assessment instruments and standardized curricula, indicating a need for further development in these areas.

2.2.4 The Eswatini Technical and Vocational Skills Certification Enhancement Project

The Eswatini Technical and Vocational Skills Certification Enhancement Project, implemented from July 2021 to June 2025, is a transformative initiative aimed at strengthening Eswatini's TVET sector. It seeks to address critical skills shortages in high-demand fields, including electrical and mechanical engineering certification, auto repair, machinery operation, and tourism, while aligning the country's vocational standards with the Southern African Development Community Qualifications Framework (SADCQF). This project is implemented through a partnership involving the Ministry of Labour and Social Security (MoLSS), the Ministry of Education and Training (MoET), and the Taiwan Technical Mission, with financial and technical support from the Government of Eswatini (GoE) and the Taiwan International Cooperation and Development Fund (Taiwan ICDF).

The primary goal of the project is to modernise Eswatini's skills certification system by improving trade testing standards and improving the outcomes of trade tested graduates in Eswatini. The project aims to certify over 500 students annually, with a goal of increasing the total number of certified professionals by 25 during its duration. It also seeks to update standards for 10 critical trades, including electrical wiring, plumbing, and hospitality management. To achieve these objectives, the project introduced institutional and structural improvements

for DIVT. These include the modernisation of trade testing venues, procurement of state-of-the-art equipment like laptops, and the digitisation of certification records through a digital license management system. This system seeks to improve record-keeping and ensure data accessibility for both current and past certificates. DIVT's operational capacity was further enhanced by the establishment of annual trade testing cycles, ensuring that a wide range of trades, including technical and non-technical occupations, are regularly assessed under updated standards. Training institutions such as ECOT and Gwamile VOCTIM were integral to the project's success, benefiting from infrastructure upgrades and curriculum enhancements.

The project also seeks to improve alignment of occupational standards in selected fields with the SADCQF, and contribute to the Eswatini Qualifications Framework by aligning trade testing with the relevant NGF level. In addition, the project actively tackled gender disparities

in TVET by reserving specific quotas for female candidates in male-dominated trades. For example, 10% of slots in technical fields such as auto repair and mechanical engineering were reserved for women, while hospitality certifications targeted gender parity at 50%.

Project brief

The project objective is to increase certified skilled personnel in key occupation categories such as electrical/mechanical engineering, auto repair, machinery, as well as tourism and hospitality in a bid to accommodate the Kingdom of Eswatini's development needs. Furthermore, the project promotes lifelong learning and skills upgrading, enabling workers to adapt to technological advances and evolving industry needs. Fostering continuous development, the project ensures Eswatini's workforce remains competitive in both national and regional contexts. Other project objectives are as follows:

Develop unit standards and qualifications of high-demand trades such as electrical/mechanical engineering, auto repair, machinery, hospitality & tourism to accommodate industry and national development needs.

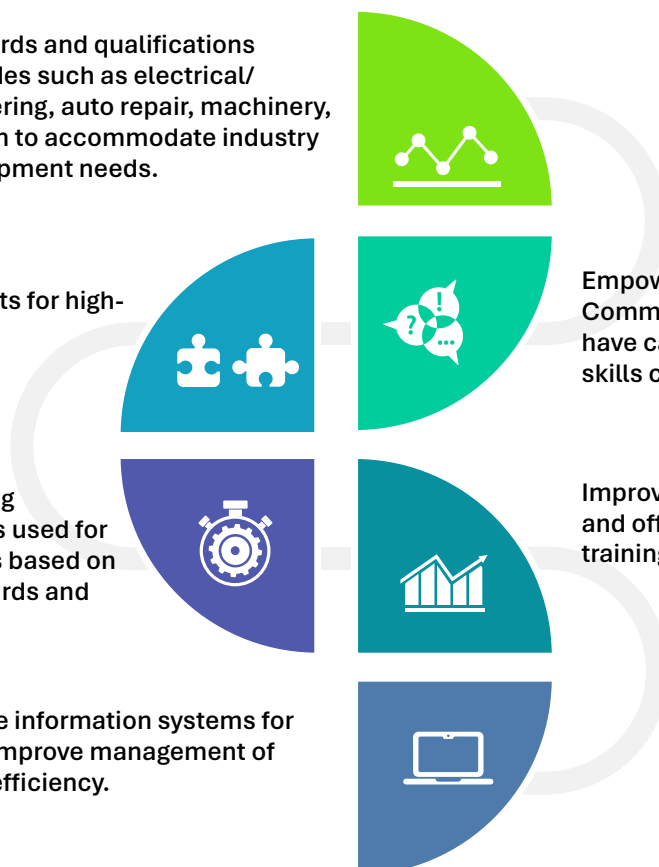
Conduct trade tests for high-demand trades

Improve trade testing facilities and venues used for high-demand trades based on updated unit standards and qualifications

Digitalise information systems for DIVT to improve management of system efficiency.

Empower the Trade Testing Advisory Committee and Panel members as well as have capacity building for trade testing and skills competitions

Improve/introduce new trades and offer upskilling and lifelong training





03

Methodology

The TVET Industry Assessment used a mix of primary and secondary data to understand Eswatini's skills development ecosystem. Surveys, interviews, and document reviews captured the realities of training, certification, and workforce needs, offering evidence to align TVET programmes with industry demands and improve relevance, efficiency, and impact.

Methodology

The integration of data sources enabled a thorough understanding of the skills development landscape and informed recommendations for aligning TVET programs with industry demands.

The TVET Industry Assessment utilised both primary and secondary data to comprehensively analyse the skills landscape in Eswatini. Secondary data were sourced from national documents, reports, and previous skills surveys, providing insights into the country's industrial development, economic direction, and the policy framework for education, training, and skills development at both national and regional levels. Primary data were gathered through surveys and key informant interviews with stakeholders such as the Eswatini DIVT, industry associations, skills brokers, and tertiary institutions. These methods captured quantitative data on skills gaps and workforce needs, along with qualitative insights into the challenges and opportunities within the TVET sector. The integration of these data sources enabled a thorough understanding of the skills development landscape and informed recommendations for aligning TVET programs with industry demands.

The research was conducted nationally to ensure geographical representation and was guided by key objectives, including the evaluation of current certification processes and standards, the assessment of alignment between TVET certification and industry requirements, the identification of gaps and challenges in the existing system, and the gathering of stakeholder perspectives on potential improvements.

3.1 Evaluation Framework

The evaluation was grounded on the OECD-DAC evaluation criteria: relevance, effectiveness, efficiency, impact, and sustainability, focusing on the alignment between TVET certification processes and industry needs. Qualitative methods provided contextual insights into stakeholder experiences, while quantitative methods enabled systematic measurement of key performance indicators. The evaluation framework examined data from graduate tracking and institutional capacity.



Quick Stats



100% national coverage –
The research was conducted across all regions of Eswatini to ensure full geographical representation.



2 data sources integrated
– Both primary (surveys, interviews) and secondary (reports, policies) data sources were used for a comprehensive analysis.

 **Table 3.1.1: TVET Evaluation Matrix**

Evaluation Criteria	Evaluation Question	Research Method	Description
Relevance	How does the TVET certification process align with national development policies?	Document analysis, key informant interviews	Assesses the alignment of the TVET certification system with Eswatini's national development priorities and industry needs. Evaluates whether the system addresses the demands of key sectors and contributes to national goals.
Coherence	How does the TVET certification process support or complement other interventions and policies?	Document analysis, key informant interviews	Evaluates how the TVET system interacts with and complements other national policies and programs. Assesses coordination, complementarity, and potential duplication of efforts among stakeholders.
Effectiveness	To what extent have the objectives of the TVET certification process been achieved?	Document analysis, statistical/survey data analysis, key informant interviews,	Measures the extent to which the TVET certification system has achieved its goals, such as improving employability and meeting industry requirements. Evaluates both planned and actual outcomes.
Efficiency	Do the results justify the resources invested in the TVET certification process?	Financial analysis, key informant interviews, document review	Assesses the economic efficiency of the TVET certification process by comparing the costs of resources used (funds, time, expertise) to the achieved outcomes. Examines resource utilisation and management.
Impact	What are the long-term effects of the TVET certification system on employment, poverty reduction, and social outcomes?	Document analysis, statistical data analysis, FGDs, key informant interviews	Evaluates the broader impact of the TVET system on Eswatini's workforce, including changes in employment rates, poverty reduction, and overall social and economic development.
Sustainability	Will the benefits of the TVET certification process continue after project completion?	FGDs, key informant interviews, document analysis	Examines the sustainability of the TVET certification system, including financial and institutional capacity to maintain the program and its benefits after external funding ends. Looks at exit strategies and phase-out plans.

The evaluation framework for the project is structured around key aspects, including inputs, activities, outputs, outcomes, and goals. Inputs focus on the resources provided for certification activities, such as financial and human resources, training materials, and equipment, with an emphasis on their effectiveness. Activities aim to expand certification capacity, especially in high-demand occupations, and increase female participation. Outputs measure the success of certifications and the improvement of standards for key occupations like electrical engineering and hospitality. Outcomes assess behavioral changes, industry alignment, and improvements in certification processes. Ultimately, the project's goal is to achieve a 25% increase in certification candidates by updating standards and aligning with industry needs, ensuring both impact and sustainability.

 **Table 3.1.2:** Focus of the Evaluation on the Project Outcome and Outputs

Evaluation Aspect	Measurement Criteria	Evaluation Focus
Inputs	- Quantity and quality of resources provided for certification activities (e.g., financial resources, human resources, equipment, venues, training materials).	Effectiveness
Activities	- Expansion of certification capacity, focusing on high-demand occupations. - Increase the number of female candidates in specific occupations. - Organisation of certification events and short-term training programs.	Relevance
Outputs	- Increased number of certifications for domestic wiring and high-demand occupations. - Elevated certification standards for key occupations (electrical/mechanical engineering, auto repair, machinery, hospitality, tourism). - Introduction of information systems for improved license management.	Efficiency
Outcomes	- Behavioural change achieved through updated certification standards. - Increased number of female candidates and alignment with industry needs. - Improved quality of certification processes and facilities.	Impact, Sustainability
Goal	Achievement of the developmental objective: Updating certification standards and increasing the number of certification candidates by 25%.	Impact, Sustainability

3.2 Data Collection

This evaluation utilised three key surveys: The Training Institution Survey aimed to assess the capacity, operational efficiency, and alignment of TVET institutions with accreditation standards and industry requirements. The study focused on all institutions accredited by the ESHEC, targeting head teachers, heads of departments, or registrars as respondents. A total of 34 institutions, including 10 TVET institutions and skills centers, were interviewed. The survey evaluated key areas such as infrastructure, program relevance, instructor qualifications, and institutional challenges, aiming to identify gaps and opportunities for improvement.

Trade Testing Graduate Tracer Survey aimed to track the career paths and employment outcomes of TVET graduates, focusing on their employment status, job satisfaction, and the alignment between their training and workplace requirements. Conducted through a combination of self-administered questionnaires and telephonic interviews, the survey utilised convenience sampling to gather insights from trade testing graduates who completed their trade tests between 2018 and 2024. Graduate contact information was obtained from the DIVT, and data collection was facilitated through an electronic platform, yielding responses of a total of 224 graduates, who possessed TVET skills across all four regions of Eswatini.

An Employer Survey was utilised to assess employer perceptions of TVET graduates, focusing on their skills, workplace readiness, and overall performance.

It aimed to identify skill gaps, evaluate the relevance of TVET programs, and gather feedback to guide curriculum and program improvements. The survey engaged 1,282 organisations, including private companies, public sector entities, and non-governmental organisations (NGOs). The survey targeted Chief Executive Officers (CEOs), department heads, human resource officers, and administrators.

3.3 Limitations of the Study



Scepticism Due to Prevalence of Scams:

During the Graduate Survey, some respondents were hesitant to participate in telephonic interviews due to fears of fraud, a growing concern in recent times. This scepticism occasionally resulted in reluctance to engage or incomplete responses. Efforts were made to address this by clearly identifying the survey team, explaining the study's purpose, and assuring participants of the confidentiality of their responses.



Challenges in Employer Engagement:

The Employer Survey faced difficulties in meeting the target number of respondents. Many business owners cancelled scheduled interviews or were unavailable, frequently citing time constraints and the demands of managing their businesses. The research team ensured a fair representation of respondents across all sectors to provide a balanced view and opinion of the findings. Different engagement methods were explored including self-administration, and aggressive advertising.







04

Findings

The assessment findings indicate that the demand for TVET is highest among formal enterprises, especially in the Manzini and Lubombo regions. Key industries, such as construction, manufacturing, and technical services, depend significantly on vocational skills. The data further outlines dominant trades, regional patterns, and sector-specific needs that are influencing Eswatini's skills development priorities.

Findings

Formal enterprises dominate Manzini and Lubombo, driven by industries reliant on technically skilled TVET graduates.

4.1 Demographics

The findings reveal that most of the enterprises (79.0%) operate within the formal sector, while 21.0% represent informal enterprises. According to Table 4.1.1, Manzini and Lubombo have the highest concentrations of formal enterprises, reflecting stronger industrial and business activity in these regions. It is not surprising that the Lubombo region has a significant formal TVET sector presence, given that it hosts constructors, builders, and sugar producers and manufacturers such as

United Plantations, Ubombo Sugar Limited, ESWADE, and the Royal Eswatini Sugar (RES) Corporation, which rely on technical and vocational skilled personnel to operate. The RES Corporation alone employs 4,500 people, including technical and vocational skilled employees. As well, Matsapha's dominance in industrial and business activity in the Manzini region is driven by the presence of factories and firms involved in, building, manufacturing, and industrial activities.

Table 4.1.1: Regional Distribution of Formal and Informal Enterprises

Row Labels	Formal enterprise	Informal enterprise
Hhohho	73.0%	27.0%
Lubombo	83.3%	16.7%
Manzini	85.0%	15.0%
Shiselweni	70.0%	30.0%
Overall	79.0%	21.0%

Source: Employer Survey, 2024



Quick Stats



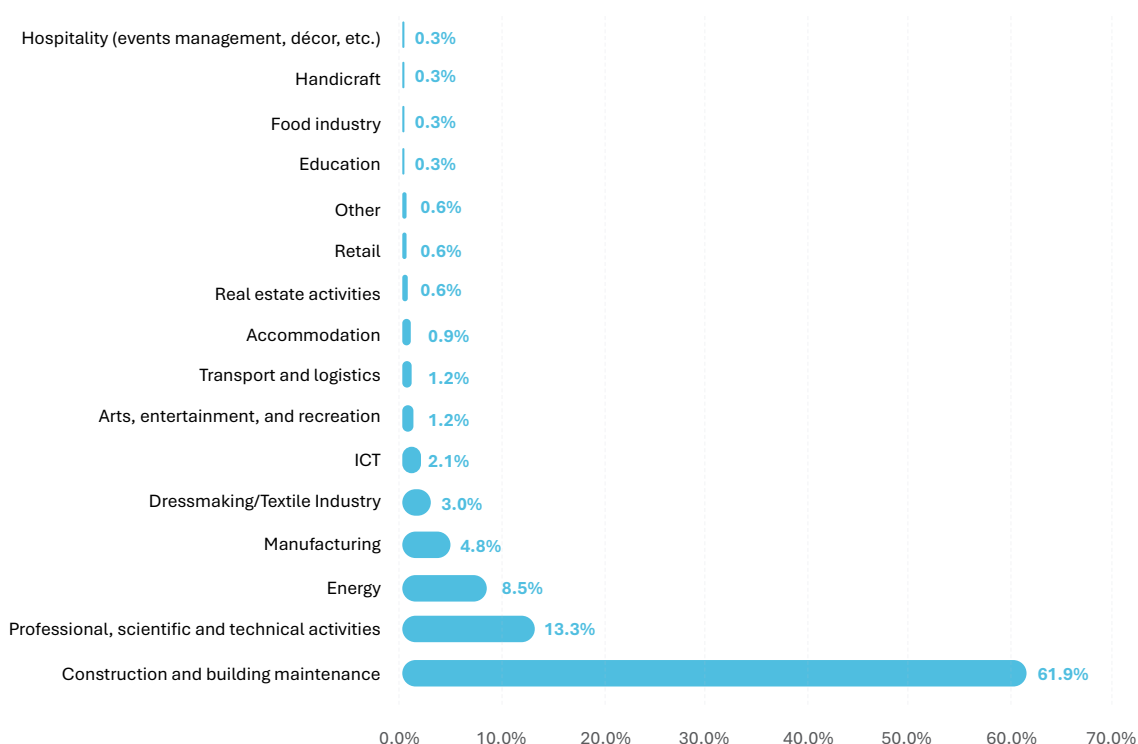
79.0% of enterprises operate within the formal sector, while 21.0% are in the informal sector.



61.9% of employer industries involved in the TVET sector are in construction and building maintenance.

Figure 4.1.1 highlights the distribution of employer industries involved in the TVET sector, with construction and building maintenance dominating at 61.9%. Other notable industries include professional, scientific, and technical activities at 13.3%, showing the importance of TVET skills in specialised fields, and energy at 8.5%, which indicates a growing demand for technical expertise in the energy sector. Manufacturing accounts for 4.8%, suggesting a steady need for industrial skills, while sectors like ICT (2.1%) and arts, entertainment, and recreation (1.2%) show smaller, yet notable, participation. Conversely, industries such as hospitality, retail, education, and food (each 0.3%-0.6%) have minimal representation, potentially due to lower reliance on TVET-specific training or limited sectoral demand.

Figure 4.1.1: Industry Distribution of Employers in the TVET Sector



Source: Employer Survey, 2024

Table 4.1.2 TVET presents skills absorbed by the industry. There is a concentration of TVET-trained workers in specific trades, with block laying/plastering (20.5%) and sewing (19.1%) being the most prevalent. Other skills demanded by industry include plumbing (12.9%), carpentry/joinery (8.0%), and welding/fabrication (7.8%), which align with infrastructure and manufacturing needs. In contrast, skills like agricultural mechanics (0.0%), instrument mechanics (0.5%), and construction plant mechanics (0.5%) are less demanded by the industry. These results emphasize the dominance of construction and textile-related trades while highlighting opportunities to expand training in less common but essential skills.

 Table 4.1.2: Distribution of TVET Skills by Trade

TVET Skills	%
Motor Mechanic	3.1%
Heavy Plant Mechanic	1.3%
Carpenter/joiner	8.0%
Instrument Mechanic	0.5%
Auto Electrician	1.8%
Panel Beater	1.3%
Agricultural Mechanic	0.0%
Plumber	12.9%
Pan Boiler	0.5%
Turner/Machinist	0.9%
Boiler Attendant	1.5%
Welder/fabricator	7.8%
Block layer/plasterer	20.5%
Electrician	19.1%
Sewing	1.6%
Cook	0.5%
Electrical Wireman	6.7%
Construction Plant Mechanic	1.5%
Fitting	1.5%
Radio/TV Mechanic	0.4%
Printing Trades	0.7%
Upholstery	1.1%
Survey Assistant	0.5%
Data Processing Clerk	0.4%
Other	5.8%

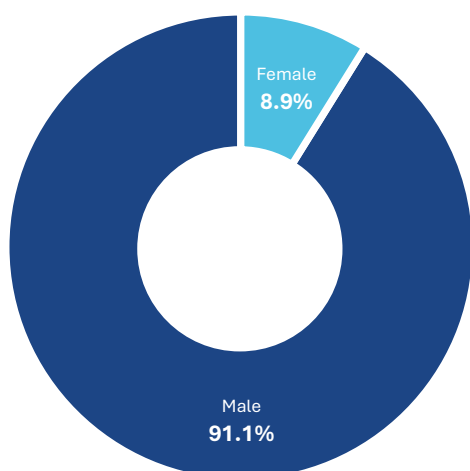
Source: Employer Survey, 2024



4.2 Trade testing, certification, and grading

Data from the graduates tracer survey, collected from a total of 224 responses, reveals a significant gender disparity among respondents. The majority, accounting for 91.1% (204 individuals), are males, while only 8.9% (20 individuals) are females. This demographic distribution highlights the predominance of male graduates who have been trade tested. This is not a surprise considering that the TVET Policy posits that there is no gender equity in enrolment in various trades. Female participation in formal TVET is limited to a few traditional technical trades such as sewing.

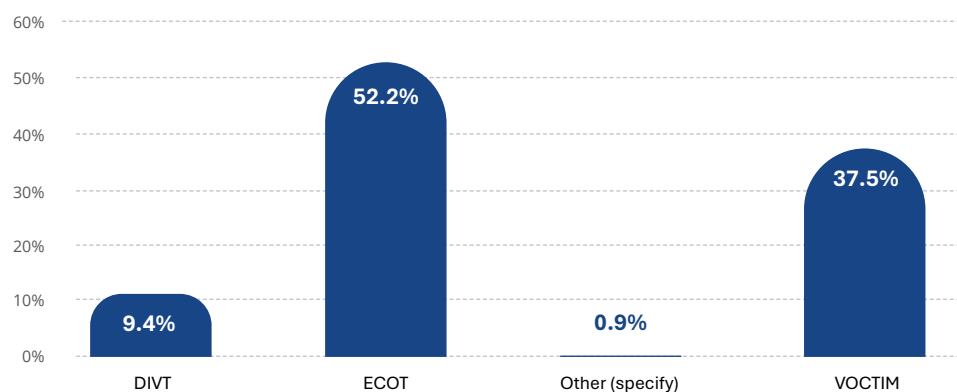
➤➤➤ **Figure 4.2.1:** Gender Distribution of Graduate Tracer Survey Respondents



Source: Trade Test Graduate Tracer Survey, 2024

When it comes to trade testing facilities, most trade tests are conducted at ECOT, with 52.2% of respondents completing their trade tests there, followed by VOCTIM, which accounts for 37.5% of the respondents. This is not surprising given that ECOT is also closer to the DIVT premises and accommodates a larger number of graduates compared to other facilities. Given the investments made by the project at both ECOT and VOCTIM, the improvement of infrastructure and equipment, has also improved the quality of trade tests offered by the facilities. Especially for trades such as electrical engineering, mechanical engineering, auto repair, and tourism and hospitality which were under the TVET enhancement project.

➤➤➤ **Figure 4.2.2:** Facilities used for trade testing

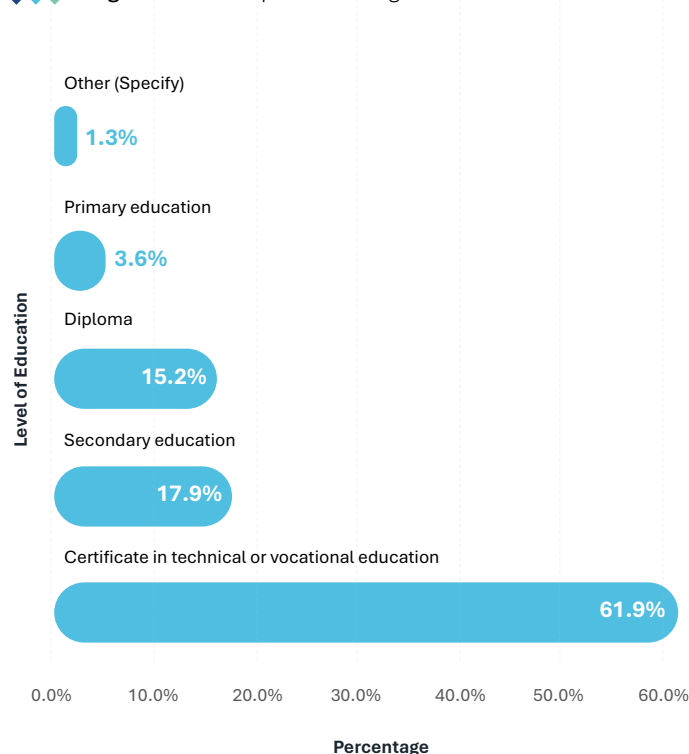


Source: Trade Testing Graduate Tracer Survey, 2024

Of the trade-tested individuals, most (61.9%) of the respondents have a certificate in technical or vocational education, while 15.2% hold a diploma. Given that trade testing was previously focused on lower-level skill development including informal training, this shows an increasing demand for trade test certificates by graduates from training institutions. Figure 4.1.4. 2.3 shows that below 25% of the respondents are secondary (17.9%) and primary school level (3.6%) graduates.

Table 4.2.1 shows trade tests conducted by DIVT between 2020 and 2024. The data shows that there was an increase in the number of people registering and undertaking trade tests in 2022, compared to the other years. This upsurge in trade testing may have resulted from the re-opening of activities in most institutions after the COVID – 19 period, where most activity was halted. Electrical Wiring, Block layering/plastering, plumbing and motor vehicle mechanic are the most commonly tested trades over the five-year period

Figure 4.2.3: Respondent's Highest Level of Education



Source: Trade Testing Graduate Tracer Survey, 2024

Table 4.2.1: Trades Tested and Year of Completion

Row Labels	2020	2021	2022	2023	2024	Grand Total
Automotive Electrician	18		42			60
Blocklayer/Plasterer	40	79	183	1	5	308
Carpentry/Joiner	24	42	50		5	121
Construction Plant Mechanic	8	16	23		4	51
Electrical Wireman	80	152	169	99		500
Fitter	27		116		4	147
Motor Vehicle Mechanic	36	78	135	1	9	259
Painter/Glazier		33	43	2		78
Plumber	34	106	147		19	306
Sewing	85		36			121
Shutterhand		37				37
Spray Painter	2		8			10
Survey Assistant			9			9
Turner/Machinist	1		7		1	9
Upholstery			20			20
Welder Gas/ Electric	25	42	41		11	119
Grand Total	380	585	1029	103	58	2155

Source: Trade Testing Graduate Tracer Survey, 2024

 **Table 4.1.4:** Level of Grade Test Achieved

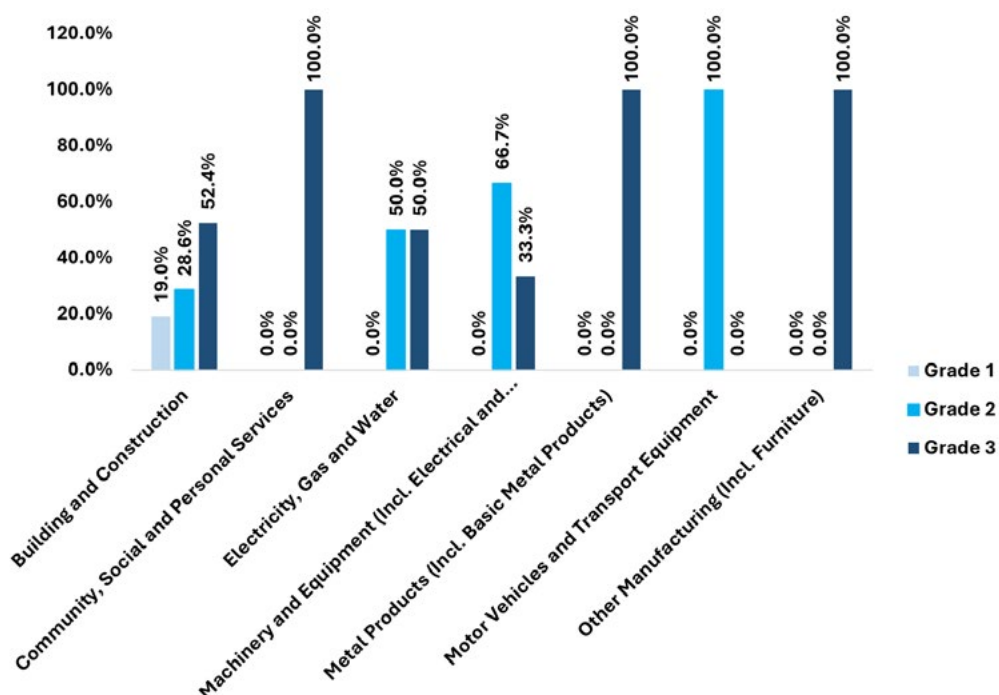
Trade and Grade Tested	Grade 1 - highly skilled	Grade 2 - skilled	Grade 3 - semi-skilled worker	Grand Percentage
Auto Electrician	0.79%	0.79%	1.85%	3.44%
Block Layer	2.65%	7.67%	3.17%	13.49%
Carpenter/Joiner	0.79%	0.26%	3.70%	4.76%
Electrician	5.29%	6.61%	5.82%	17.72%
Fitter	3.44%	1.59%	1.85%	6.88%
Heating, Ventilation, and Air Conditioning (HVAC)	0.00%	0.53%	4.23%	4.76%
Heavy Plant Mechanic/Construction Plant Mechanic	0.79%	1.06%	0.26%	2.12%
Motor Vehicle Mechanic	1.85%	5.03%	2.91%	9.79%
Other (specify)	0.00%	0.00%	0.26%	0.26%
Panel Beater	0.00%	0.53%	0.26%	0.79%
Plumber	2.65%	3.97%	0.53%	7.14%
Spray Painting	2.65%	5.29%	6.08%	14.02%
Welder and Boilermaker (Fabricator)	2.38%	3.17%	3.70%	9.26%
Sewing	0.53%	0.53%	1.85%	2.91%
Surveyors	0.00%	0.53%	2.12%	2.65%
Grand Total	23.81%	37.57%	38.62%	100.00%

Source: Trade Testing Graduate Tracer Survey, 2024

Figure 4.2.4 shows that most trade-tested graduates in Building and Construction, Metal Products, Machinery and Equipment, Motor Vehicles, and Manufacturing fields hold Grade 3 certification, indicating entry-level or semi-skilled competence. In contrast, Grade 1, which reflects highly skilled proficiency and is the most advanced trade testing level in Eswatini, is rarely attained, with only 19% of Building and Construction graduates reaching this grade. Grade 2 (representing skilled level, involving solid practical training and experience) is more common in fields such as Metal Products (66.7%) and Machinery and Equipment (50%), suggesting that while progression to the highest skill level (Grade 1) is possible, the number of workers advancing narrows significantly as the skill requirements and responsibilities increase.

However, employers particularly value Grade 1 artisans for their ability to perform complex tasks with minimal supervision, which directly contributes to improved productivity, safety, and quality standards. However, progression from Grade 3 to Grade 1 requires multiple testing attempts, extensive on-the-job experience, and access to recognised training and assessment facilities. To increase the supply of highly skilled artisans, Eswatini's TVET system should invest in structured support for career progression through retesting pathways, workplace-based learning, and recognition of prior learning (RPL) mechanisms.

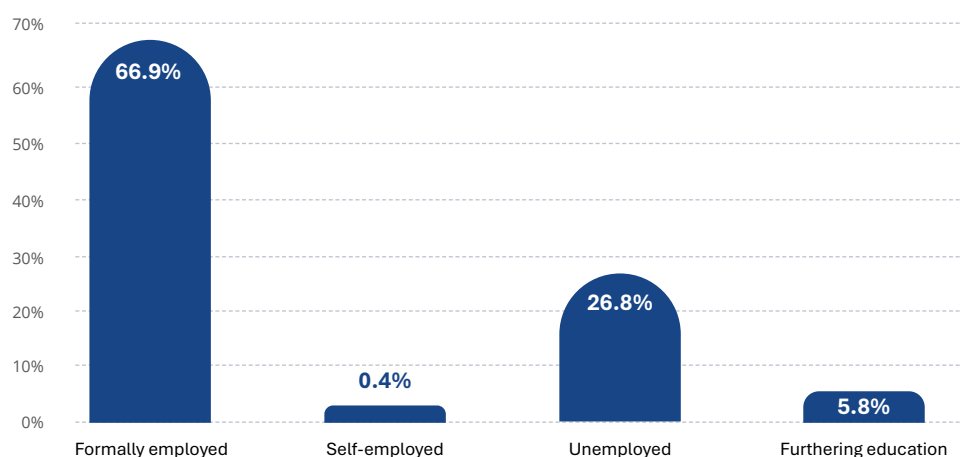
Figure 4.2.4: Level of trade testing certification held by graduates



Source: Graduate Survey, 2024

In terms of employment status, the survey results indicate that 66.9% of the trade tested individuals are formally employed, and only 5.8% are unemployed. The high percentage suggests that many graduates have transitioned effectively into stable jobs within the formal sector, likely benefiting from the enhanced certification standards and skills development initiative. Additionally, 26.8% of respondents are self-employed, highlighting the entrepreneurial potential of the graduates, indicating their ability to utilise the skills acquired during training to create independent income-generating opportunities, which is crucial for fostering self-reliance and supporting economic growth.

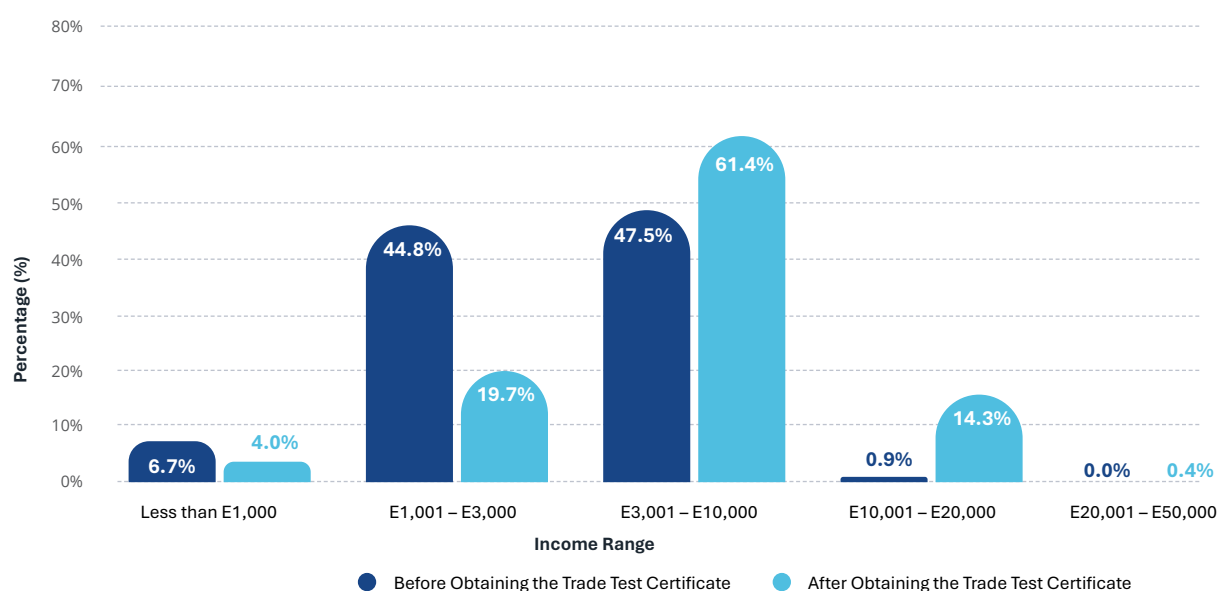
Figure 4.2.5: Graduates Employment Status



Source: Trade Testing Graduate Tracer Survey, 2024

The survey results paint a compelling picture of income changes following trade testing certification. Before certification, 6.7% of respondents earned less than E1,000.00 — a figure that dropped to 4.0% post-certification. Meanwhile, the group earning between E3,001.00 and E10,000.00 surged from 47.5% to 61.4%, becoming the dominant income bracket. Most strikingly, those earning between E10,001.00 and E20,000.00 increased from 0.9% to 14.3%. Clearly, trade testing is not just a qualification, but a gateway to better pay and brighter prospects for many in the TVET sector.

Figure 4.2.6: Graduates Monthly Income before and after Trade Test Certification



Source: Trade Testing Graduate Tracer Survey, 2024

When assessing the impact of trade testing certification on livelihoods, 44.2% of the respondents highlighted that they gained a lot of confidence in their trade, 18.5% said that certification helped them secure a job, while 15.2% mentioned that it allowed them to take on jobs that their employer previously would not assign to them, and 11.2% received a salary increase after presenting the certificate to the employer (see Table 4.1.5). The least common benefits are the ability to be self-employed (1.3%), start a business (2.5%), and promotion at work (3.4%). The results suggest that certification can be a confidence booster and practical credential that can lead to employment, expanded job opportunities, higher salary, and entrepreneurship.

Table 4.2.3: Impact of Trade Testing Certificate on Livelihoods

Impact of Trade Testing Certificate on Livelihoods	Percentage
Gained a lot of confidence in my trade	44.2%
Helped me secure a job	18.5%
Allowed me to take on jobs my employer previously wouldn't assign to me	15.2%
Received a salary increase after presenting the certificate to my employer	11.2%
Resulted in a promotion at work	3.4%
Nothing has changed	2.7%
Enabled me to start my own company	2.5%
Encouraged me to resign and become self-employed	1.3%
Other (Specify)	1.1%
Grand Percentage	100.0%

Table 4.2.4 shows the type of support graduates received from trade testing facilities. Access to training materials and resources emerged as the most significant support, with 20.9% of respondents indicating its availability. Guidance on the trade testing process and requirements followed closely at 18.1%, suggesting that many candidates rely on clear instructions to navigate the certification process successfully. Similarly, access to practical equipment for skill demonstration, reported by 17.4%, is vital for ensuring candidates can showcase their competencies under realistic conditions. Table 4.2.4 also shows that support in terms of financial assistance or subsidies for test fees (0.7%) and flexible scheduling of tests sessions (3.0%) is lacking as cited by the respondents. While facilities are good at providing learning materials and practical resources, they are falling short in making testing more financially accessible and schedule friendly. It is worth noting that, out the respondents that received financial support for testing process, 82.5% highlighted that the financial support for testing process was inadequate.

 **Table 4.2.4:** Support Received from Trade Testing Facilities

Support Received from Trade Testing Facility	Percentage
Access to training materials and resources	20.9%
Guidance on the trade testing process and requirements	18.1%
Access to practical equipment for skill demonstration	17.4%
Clear and detailed feedback after the test	13.8%
Assistance from instructors or personnel during the test preparation phase	13.4%
Technical assistance during the trade test	12.7%
Flexible scheduling of test sessions	3.0%
Financial support or subsidies for test fees	0.7%
Total Percentage	100.00%

Source: Graduate Tracer Survey, 2024

Given the fact that trade tests focus on low-skill training, there are no supporting programmes for those willing to access higher-level skill testing thus the need to enhance access to formal and non-formal education, particularly in the rural areas where there is a lack of credentials needed to enrol in the formal TVET systems.

4.3 Skills supply

The study, through a Higher Education institution survey, found that a sizable number of institutions offer diverse qualifications across the TVET sector, reflecting the sector's broad scope and responsiveness to different labour market needs. For example, Eswatini College of Technology (ECOT) offers a range of engineering and construction-related diplomas, including Electrical, Mechanical, Civil Engineering, and Quantity Surveying fields that are highly relevant to national infrastructure development. Similarly, Gwamile VOCTIM provides accredited National Qualifications Framework (NQF) programmes in Automotive, Mechanical, and Electrical Engineering, demonstrating alignment with critical industrial skills. In the agriculture and agri-business space, BOSCO Youth Agricultural Centre offers practical certificates in Horticulture, Beekeeping, and Pig Production, targeting rural livelihoods and food security priorities. This programme's offerings highlight the role of TVET institutions in equipping learners with a mix of conventional trade skills and modern competencies aligned with sectoral growth areas.

 **Table 4.3.1: TVET Skills Supply in Eswatini**

Name of School	Qualification	Enrolment
Advanced School of Information Technology	Diploma in Certified Computer Professional (ACCP)	20
	Diploma in Arena Animation International Programme (AAIP)	20
	Diploma in Information Security and Ethical Hacking (ISEH)	20
	Diploma in Certified Network Specialist (ACNS)	20
BOSCO Youth Agricultural Centre (BYAC)	Certificate in Horticulture	30
	Certificate in Beekeeping	30
	Certificate in Pig Production	30
BSA Training Centre	Certificate in Light Motor Vehicle	35
	Certificate in Health and Safety	35
	Certificate in Electrical Engineering	35
	Certificate in Plumbing	35
Eswatini College of Technology (ECOT)	Diploma in Electrical Engineering	30
	Diploma in Mechanical Engineering	25
	Diploma in Civil Engineering	30
	Diploma in Quantity Surveying	30
	Diploma in Architectural Technology	30
	National Diploma in Automotive Engineering (Heavy)	25
	National Diploma in Vehicle Body Repairs (VBR)	25
	Diploma in Hospitality and Tourism Management	25
Eswatini Cooperative Development College (ECODEC)	Diploma in Building and Construction	25
	Certificate in Co-operative Management	50
Gwamile VOCTIM	Automotive Engineering, National Certificate (NQF Level 2)	50
	Commercial Studies, National Diploma (NQF Level 4)	26
	Electrical Engineering, National Diploma (NQF Level 4)	50
	Mechanical Engineering, National Diploma (NQF Level 4)	26
	Wood Trades, National Diploma (NQF Level 4)	50
Manzini Industrial Training Centre (MITC)	Certificate in Agriculture	15
	Certificate in Building Construction	20
	Certificate in Carpentry & Joinery	25
	Certificate in Electrical Installation	25
	Certificate in Metal Work	25
	Certificate in Motor Mechanics	25
	Certificate in Panel Beating & Spray Painting	25
	Certificate in Plumbing	25
	Certificate in Upholstery	25
	Certificate in Computer Studies (ICDL)	25
	Certificate in Auto Electrical Engineering	25
Mpisi Farm	Animal Health and Production	25
Sicobho Skills Centre	Certificate in Carpentry and Welding	9

Source: NLMSP Higher Education Survey, 2024

The data shows that out of the 10 TVET institutions and skills centers surveyed, the majority (60%) are public institutions, while the remaining 40% are private institutions. Skills centers represent the largest group, with 7 institutions split between 4 private and 3 public. In contrast, TVET institutions and colleges are predominantly public, with 2 TVET institutions and 1 college being publicly operated. This distribution highlights the role of public institutions in providing TVET training, while private institutions contribute mainly through skills centres. Strengthening collaboration between public and private providers could enhance training accessibility and diversity across the sector.

Table 4.3.2: Distribution of TVET Institutions and Skills Centres

Training Institutions	Private	Public	Grand Total
College		1	1
Skills Centre	4	3	7
TVET Institution		2	2
Grand Total	4	6	10

Source: Training Institution Survey, 2024

Based on the graduate survey, Table 4.3.3 presents the list of skills supplied by different TVET institutions according to the qualifications of the surveyed graduates. The Table shows that most graduates (15.5%) have acquired health and safety certificates, while the second group is heavy plant mechanics (9.6%), followed by automotive qualifications (motor mechanic 8.22%, diesel mechanic 8.68%). Fewer TVET institutions have graduated IT graduates compared to the engineering and construction fields, demonstrating a skewness in graduate interest towards these sectors, or the dominance of certain fields over others in terms of available training offerings from TVET institutions.

Table 4.3.3: List of Skills Supplied at Different TVET Institutions

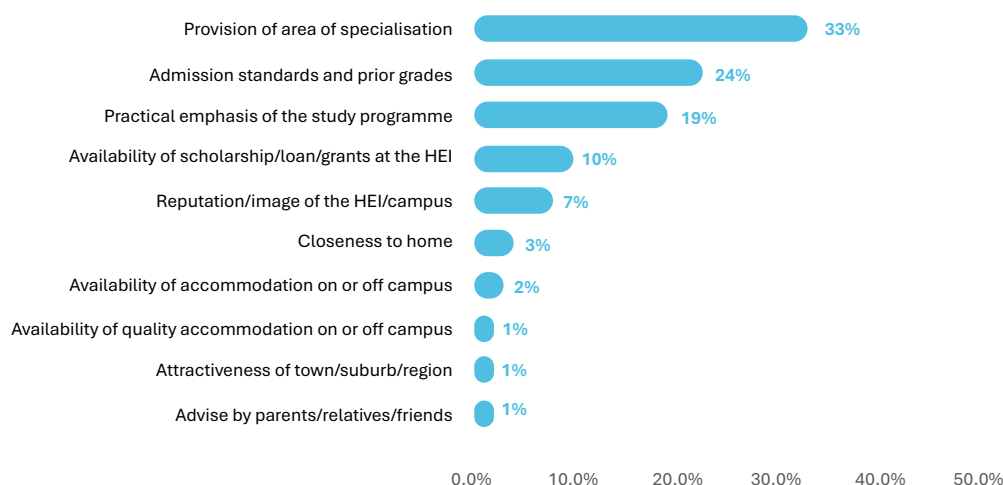
Programme	%
Agriculture In Beekeeping	0.46%
Animal Health and Production	0.46%
Architecture	0.46%
Auto Electrical Engineering	4.11%
Automotive Engineering	2.28%
Automotive Vehicle Body Repair	0.91%
Bricklaying	0.46%
Business Finance and Accounting	5.48%
Business Management	0.91%
Carpentry and Joinery	5.94%
Civil Engineering	0.46%
Computer Science	1.37%
Cyber Security	0.91%
Diesel Mechanic	8.68%
Electrical and Electronic Engineering	7.31%
Electrical Wiring	7.31%

Health and Safety	15.53%
Heavy Plant Mechanic	9.59%
Horticulture	1.37%
Hospitality	0.46%
Human Resource Management	0.91%
Industrial Electrical Engineering	0.46%
Information Communication and Technology	1.83%
Mechanical Engineering	3.20%
Motor Mechanic	8.22%
Plumbing	7.76%
Poultry Farming	0.46%
Primary Education	0.46%
Quantity Surveying	0.91%
Secondary Education	0.91%
Welding	0.46%

Source: NLMSP Higher Education Survey, 2024

Nevertheless, some of the most significant factors considered by graduates when selecting a training institution were also highlighted in the study. Students primarily choose institutions based on factors like the provision of the specialisation area of interest/programme (33%), admission standard and prior grades (24%), and the practical emphasis on the study programme (19%) (see Figure 4.3.1). However, the study also noted that many students lack awareness of TVET's potential career benefits, limiting enrolment in certain fields. Therefore, strengthening career guidance and publicising TVET success stories could enhance enrolment rates across institutions.

Figure 4.3.1: Key Factors Influencing Choice of Institution

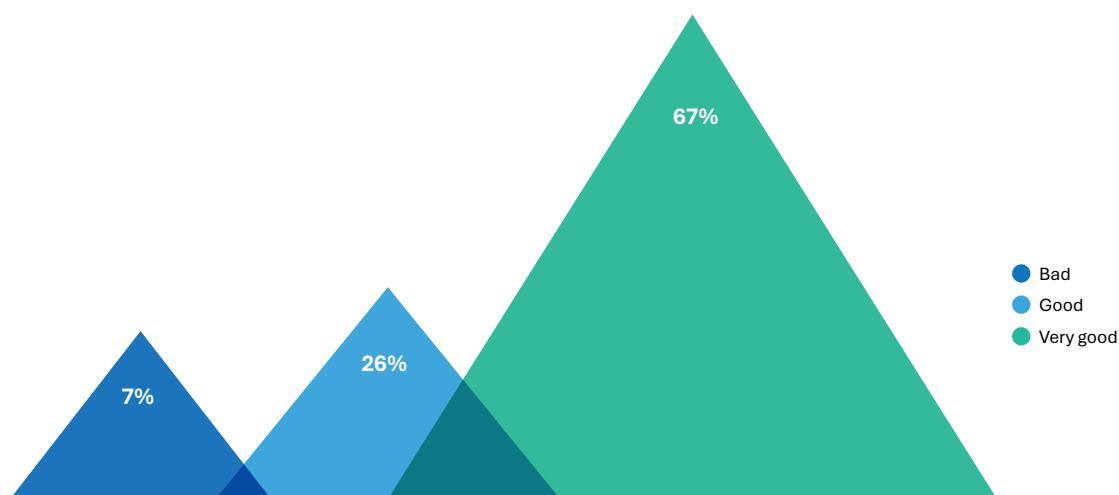


Source: Graduate Survey, 2024

Assessing TVET Delivery

As Eswatini seeks to align its workforce development strategies with the demands of a dynamic labour market, evaluating how effectively current TVET programs meet industry and student expectations is essential. Understanding and addressing training delivery is important for the success of TVET institutions. Globally, research shows that well-aligned TVET programs can exorbitantly reduce skills mismatches, enhance productivity, and support socio-economic mobility (ILO, 2021; UNESCO, 2020). Not surprisingly, therefore, the perception of training institutions about the quality of their training is of high standards, with 93% rating it good and very good (see Figure 4.3.2). Only 7% of the training institutions rated the quality of training poor, associating this with inadequate resources for practical training and a slow adoption of modern equipment and machinery.

Figure 4.3.2: The assessment of training quality across institutions



Source: Training Institution Survey, 2024

However, an assessment of teacher-to-student ratios across TVET institutions highlight challenges in quality TVET learning and delivery, much against the views held by the training institution (Table 4.3.4). Programs such as Automotive Engineering (1:55) and Mechanical Engineering (1:56) exhibit the highest ratios, raising concerns about overcrowding and limited individual attention, which are critical for technical and practical training. Stakeholders in KIIs emphasised that such high ratios hinder students' ability to engage in hands-on activities and reduce the overall quality of training. Literature on vocational education supports these findings, noting that overcrowded classrooms in technical fields compromise the ability to provide quality training.

Programs such as Building Construction (1:3) and Motor Mechanics (1:5) maintain highly favourable ratios, reflecting the effective allocation of resources and personalised instruction. These smaller class sizes ensure better practical learning outcomes, as supported by KIIs, which identified institutions like MITC as a benchmark for balancing capacity with instructional quality. Other programs, such as Electrical Engineering (1:26) and Air Conditioning and Refrigeration (1:40), fall in the middle range but require further optimisation to ensure a balance between efficiency and quality.

KIs noted the lack of specialised instructors in fields such as certified network forensics, arena animation, which further affects the quality of training delivered in these areas. This aligns with broader literature advocating for targeted recruitment and professional development in high-demand sectors like cybersecurity and networking. In agricultural programs such as Horticulture, Beekeeping, and Pig Production (1:20), the ratios highlight moderate accessibility, but practical training could be enhanced with additional staff and equipment. KIs indicated that agricultural programs often face resource constraints, particularly in rural areas, which also hinder quality training delivery.

 **Table 4.3.4:** Teacher-to-student ratio at surveyed institutions

Programme	Specialisation of Lecturer	The average Lecturer to student ratio
Automotive Engineering, National Certificate (NQF Level 2)	Mechanical engineering	1:55
Commercial Studies, National Diploma (NQF Level 4)	Business Development, marketing, procurement specialist, business law, public relations.	1:48
Electrical Engineering, National Diploma (NQF Level 4)	Electrical and electronics engineering	1:26
Mechanical Engineering, National Diploma (NQF Level 4)	Mechanical engineering	1:56
Wood Trades, National Diploma (NQF Level 4)	Woodwork	1:25
Certificate in Electronics (NQF Level 2)	Electrical and electronics engineering	1:26
Certificate in Air Conditioning and Refrigeration (NQF Level 2)	Body repairs	1:40
Certificate in Agriculture	Diploma, and Vocational Instructor Diploma (VID)	1:12
Certificate in Building Construction	Diploma, GRADE 2, Vocational Instructor Diploma (VID)	1:3
Certificate in Carpentry & Joinery	Degree Vocational Instructor Diploma (VID)	1:5
Certificate in Electrical Installation	Degree, Grade 1, Vocational Instructor Diploma (VID)	1:5
Certificate in Metal Work	Degree, Vocational Instructor Diploma	1:5
Certificate in Motor Mechanics	Degree, Diploma, Grade 1&2, Vocational Instructor Diploma	1:5
Certificate in Panel Beating & Spray Painting	Vocational Instructor Diploma, Grade 1,	1:5
Certificate in Plumbing	GRADE 1 \ GRADE 2\ Vocational Instructor Diploma (VID)	1:12
Certificate in Upholstery	Grade 1, Vocational Instructor Diploma (VID)	1:10
Certificate in Computer Studies (ICDL)	Diploma, Vocational Instructor Diploma (VID)	1:20
Certificate in Auto Electrical Engineering	Grade 1, Vocational Instructor Diploma (VID)	1:10
Certificate in Horticulture	Diploma in Horticulture	1:20
Certificate in Bee Keeping	Animal science qualification	1:20
Certificate in Pig Production	Animal Science	1:20
Diploma in Certified Computer Professional (ACCP)	Software Engineering	1:10
Diploma in Arena Animation International Programme (AAIP)	Bachelor's degree in Multimedia	1:10
Diploma in Information Security and Ethical Hacking (ISEH)	Cyber Security and Networking	1:10
Diploma in Certified Network Specialist (ACN S)	MSc with specialization in Networking	1:20

Source: Training Institution Survey, 2024

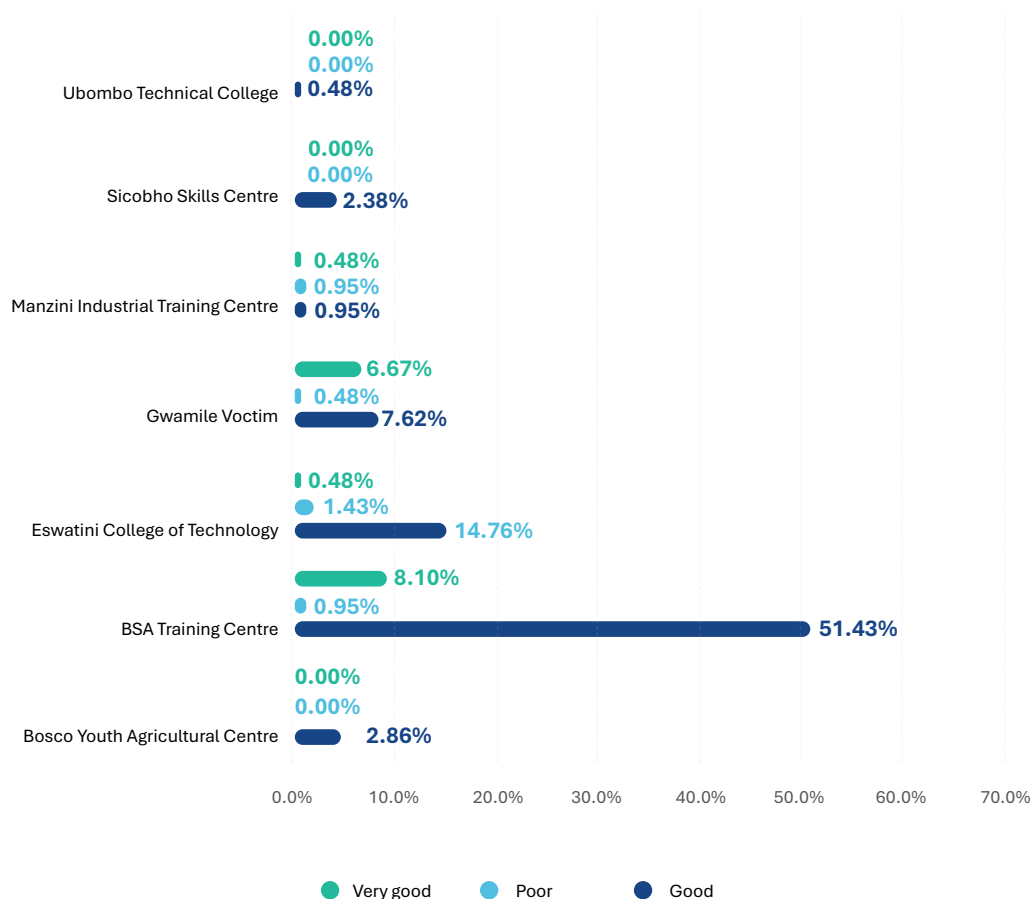


Entrepreneurial training and soft-skill learning

Entrepreneurial training and soft-skill learning play a crucial role in preparing TVET graduates for both traditional employment and entrepreneurial ventures. Entrepreneurial training equips students with the skills to innovate, pursue self-employment, and contribute to economic growth, while soft-skills learning enhances graduates' ability to adapt to diverse workplace environments by improving communication, teamwork, and critical thinking. Together, these elements ensure that TVET graduates are versatile and capable of navigating complex professional landscapes.

Figure 4.3.3 shows that BSA graduates are satisfied with the integration of soft skills in their programmes. The data shows that 51.4% of students who graduated at BSA rate the integration of soft skills in their learning as good. This is followed by ECOT with a low 14.76% of graduates that rank soft skill integration as good. While BSA and ECOT demonstrate some level of integrating soft skills in their programmes, there is generally a lack of such integration across other TVET institutions. These statistics highlight a concerning gap in preparing graduates for entrepreneurial, self-employment and workplace integration.

Figure 4.3.3: Soft Skills Integration in TVET Institutions



Source: Training Institution Survey, 2024

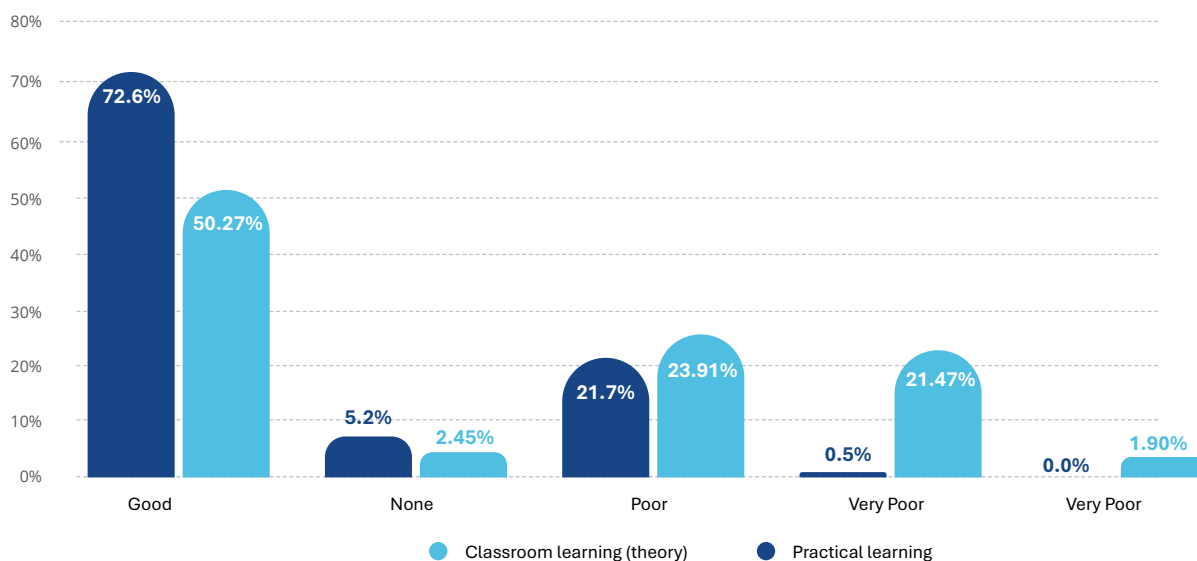


Classroom (Theory) and Practical Learning

About 72.6% of TVET graduates perceive the quality of their classroom-based theoretical instruction as good, while a lower percentage (50.3%) express a similar assessment regarding their practical learning experiences. The results indicate that the majority of TVET training institutions' strength lies in theoretical rather than practical lessons. Despite TVET being more useful than theoretical, this explains why a majority of graduates lack practical skills.



Figure 4.3.4: Comparison of Graduate Perceptions on Classroom (Theory) vs. Practical Learning Effectiveness

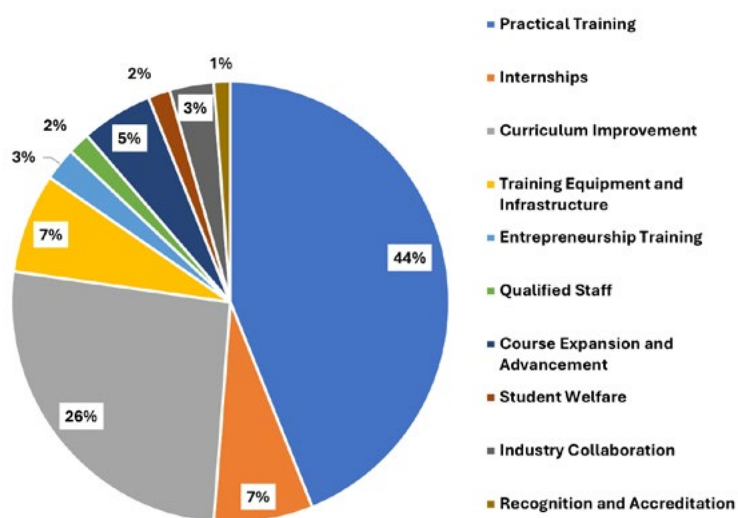


Source: Graduates Survey, 2024

Figure 4.3.5 reveals critical gaps in TVET curricula (26%) and practical training (44%), predominantly. The study finds that most TVET institutions have outdated content that fails to cover emerging fields like renewable energy installations, solar panel technologies, and smart grid systems. The programs also lack emphasis on internships (7%) and adequate training infrastructure (7%). Klls pointed out that TVET institutions lack a clear process for regularly updating their curricula. This has led to a growing disconnect between what students learn and what industries need. While the Taiwan International Cooperation and Development Fund (ICDF) has helped modernise some course content, local stakeholders stress the importance of developing their own curriculum updates rather than relying solely on international support.



Figure 4.3.5: Areas of improvement for programming



Source: Graduates Survey, 2024



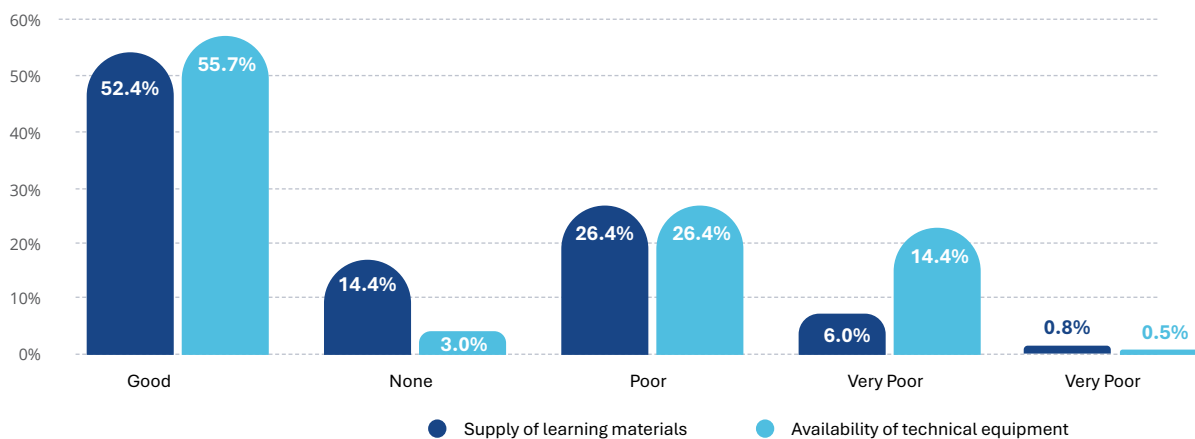
Learning Materials Supply and Availability of Technical Equipment

Adequate supplies of textbooks, guides, and manuals ensure students can effectively engage with coursework, while access to modern technical equipment allows them to practice industry-relevant skills and gain practical experience. There are varying experiences with regards to learning materials and technical equipment in TVET institutions. Figure 4.3.6 shows that slightly more than half (55.7%) of graduates rated the availability of technical equipment as good, while 52.4% rated learning materials similarly. At the same time, 26.4% of respondents rated both resources as poor, and 14.4% reported having no access to learning materials at all in their training institutions. Institutions in the private sector including Ubombo Technical College, NHTC, Sicobho Skills Centre, however, struggle with outdated or insufficient resources. This impacts students' ability to apply theoretical knowledge through practical learning. The most affected programs are specialised fields in engineering and agriculture. Klls state that systemic inequalities in resource allocation, particularly in rural and smaller institutions, limited government funding, and the absence of industry partnerships exacerbate these deficits.

However, aligning curricula with market demands and leveraging centralised procurement strategies can ensure equitable access to essential learning tools and technical equipment across institutions. The findings highlight an urgent need for targeted investments and reforms in Eswatini's TVET system. TVET institutions can better align with labour market needs and ensure that students are adequately prepared for employment in competitive sectors by improving resource provision through sustainable funding mechanisms and enhancing partnerships with industry.



Figure 4.3.6: Graduate Perceptions of Learning Materials Supply vs. Availability of Technical Equipment



Source: Graduates Survey, 2024



Learning Institution capacity of the lecturer

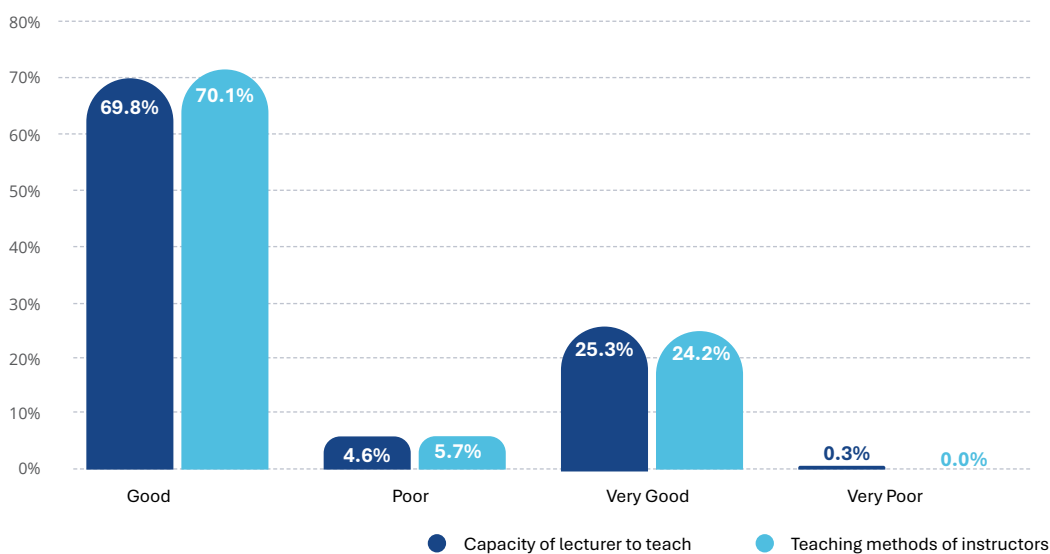
The data in Figure 4.3.7 illustrates the perceived effectiveness of lecturer capacity and teaching methods in TVET institutions, which are critical determinants of training quality. Most respondents rated both lecturer capacity (69.8%) and teaching methods (70.1%) as “Good,” with an additional 25.3% and 24.2%, respectively, rating these aspects as “Very Good.” This shows a positive overall perception of TVET educators’ expertise and instructional approaches, which aligns with findings from KIIs highlighting that many institutions employ qualified lecturers with relevant industry experience.

However, the 4.6% rating lecturer capacity as “Poor” and the 5.7% giving poor ratings to teaching methods point to inconsistencies in teaching quality across institutions. KIIs identified challenges such as outdated teaching techniques and insufficient exposure to emerging industry practices, particularly in smaller institutions. Literature supports these findings, emphasising that ongoing professional development is essential for lecturers to remain effective, especially in fields undergoing rapid technological advancements.

The gap in instructional quality could also be attributed to overcrowded classrooms, particularly in engineering and automotive programs, where lecturer-to-student ratios often exceed 1:50, limiting individualised attention. Furthermore, while many institutions excel in theoretical instruction, KIIs revealed a lack of innovative teaching methods, such as blended learning and simulation-based training, which are critical for translating theory into practical skills. Addressing these gaps requires targeted interventions, including mandatory professional development programs for lecturers, integration of modern teaching technologies, and partnerships with industries to expose educators to evolving workplace practices. Expanding faculty capacity in high-demand fields and ensuring equitable resource allocation across all TVET institutions will further enhance teaching quality and consistency.



Figure 4.3.7: Graduate Perceptions of Lecturer Capacity vs. Teaching Methods of Instructors



Source: Graduates Survey, 2024

For effective training delivery, TVET centres need to collaborate with industry on multiple levels, including training development, certification, funding, apprenticeships and internships, and providing employee upskilling programmes. However, partnerships should bring value to all those taking part for it to be more sustainable and be conceived through a value proposition. According to the Human Resource Development Council of South Africa (2014), partners are

seeking TVET colleges that can unlock value. Therefore, colleges must be capacitated and informed to form a value proposition to enter into partnerships with industry and other players. However, partnerships should also extend beyond the classroom environment, whereby TVET colleges or institutions engage in community service and community partnerships. Such activity and engagement should be made possible by subsidising disadvantaged scholars and community members to offer introductory education to enrol in vocational training programmes and get the skills needed to engage in training given that international experience have revealed that TVET offerings have proven to be costly (World Bank, 2018) and as such, there is a greater need for government to intervene and make appropriate heavy investments upfront engaging closely in partnerships between the private and public sectors.

4.4 Demand

Skills demand determines the relevant skills required by industry from graduates and the general labour market. Table 4.4.1 highlights that demand for TVET qualifications is expected to grow in Eswatini, especially among construction-related trades, particularly bricklaying (14.4%), civil engineering (9.9%), and building studies (8.9%). These patterns reflect continued infrastructure development priorities and the labour-intensive nature of the construction sector, where hands-on technical skills are essential. Trades such as electrical wiring and welding show higher projected demand within the informal sector, suggesting that these skills remain critical for small-scale, self-employment-driven work environments. The relatively lower expected demand for specialised areas like air conditioning and refrigeration, motor mechanics, and health and safety may reflect narrower occupational niches or limited absorption capacity in those fields. Overall, the results confirm that the TVET system must prioritise construction, electrical, and mechanical trades as core areas of focus for skills investment, particularly where both formal and informal sectors converge in recognising future demand.

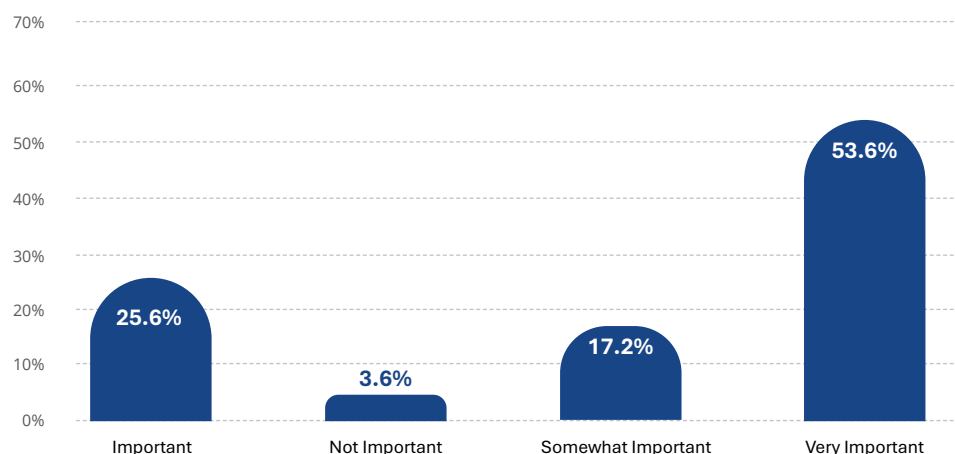
 **Table 4.4.1:** TVET Institutions Provide Graduates with the Skills Needed in Industry

Skills	Formal enterprise	Informal enterprise	Overall
Bricklaying	14.4%	14.3%	14.4%
Civil Engineering	9.8%	10.7%	9.9%
Building studies	10.3%	0.0%	8.9%
Welding	5.2%	14.3%	6.4%
Electrical wiring	4.0%	21.4%	6.4%
Electrical Engineering	7.5%	0.0%	6.4%
Quantity Surveying	6.3%	3.6%	5.9%
Electrical trade	5.7%	7.1%	5.9%
Technicians	4.6%	3.6%	4.5%
Carpentry	4.0%	7.1%	4.5%
Painting/spray painting	2.9%	3.6%	3.0%
Plumbing	2.9%	0.0%	2.5%
Motor Mechanic	2.3%	3.6%	2.5%
Heavy Plant Mechanic	2.3%	3.6%	2.5%
Aircon and Refrigeration Techniques	2.9%	0.0%	2.5%
Health and safety	1.7%	3.6%	2.0%
Automotive Systems	1.7%	3.6%	2.0%
Other	11.5%	0.0%	9.9%
Total	100%	100%	100%

Source: Employer Survey, 2024/25

However, all surveyed employers stated that they only hire staff from accredited institutions to ensure they employ qualified personnel. When asked about the importance of hiring qualified staff, 54% indicated that it is “very important” for improved productivity, professionalism, and reduced training costs. Employers emphasised that qualified staff are better equipped to meet industry standards and adapt to job requirements efficiently. Conversely, only 4% reported that hiring qualified staff is “not important,” primarily attributing this to a preference for on-the-job training or reliance on informal recruitment methods.

Figure 4.4.1: Employer Perspectives on the Importance of Hiring Qualified Staff



Source: Employer Survey, 2024

Most employers (58%) believe that TVET institutions provide graduates with the skills needed in their industries, with particularly high satisfaction in sectors like Community, Social and Personal Services, Energy and Other Minerals, and Metal Products, where 100% of respondents agreed. However, 26% of employers indicated that TVET institutions “sometimes” meet their industry needs, reflecting gaps in consistent skill alignment, especially in sectors like Manufacturing (e.g, furniture), and electricity, gas, and water. Notably, 16% of respondents stated that TVET institutions do not provide the required skills, with dissatisfaction highest in the Wood and Paper sectors, highlighting areas where curricula may require closer alignment with industry demands.

Table 4.4.2: Do TVET Institutions Meet Industry Demand

TVET Skills	Yes	Sometimes	No	Grand Total
Building and Construction	54.5%	29.1%	16.4%	100.0%
Community, Social, and Personal Services	100.0%	0.0%	0.0%	100.0%
Electricity, Gas and Water	56.4%	25.6%	17.9%	100.0%
Energy and Other Minerals	100.0%	0.0%	0.0%	100.0%
Finance, Real Estate and Business Services	0.0%	50.0%	50.0%	100.0%
Machinery and Equipment (Incl. Electrical and Communication Machinery)	66.7%	22.2%	11.1%	100.0%
Metal Ores (Ferrous and Non-Ferrous incl. Platinum)	100.0%	0.0%	0.0%	100.0%
Metal Products (Incl. Basic Metal Products)	100.0%	0.0%	0.0%	100.0%
Motor Vehicles and Transport Equipment	78.6%	14.3%	7.1%	100.0%
Other Manufacturing (Incl. Furniture)	25.0%	50.0%	25.0%	100.0%
Textiles, Clothing, and Footwear (Incl. Leather)	80.0%	0.0%	20.0%	100.0%
Transport, Storage, and Communication	100.0%	0.0%	0.0%	100.0%
Wood and Paper	50.0%	0.0%	50.0%	100.0%
Grand Total	58.0%	26.0%	16.0%	100.0%

Source: Employer Survey, 2024

Given the high demand for competent TVET employees, Table 4.4.3 below shows that many employers support employees to gain trade-tested qualifications or further TVET certifications across different trades. High levels of support are evident in trades like Pan Boiler (100.0%), Turner/Machinist (80.0%), and Boiler Attendant (71.4%), likely due to the technical precision required in these roles and the direct impact of qualifications on productivity and safety standards. Similarly, trades such as Auto Electrician (75.0%) and Construction Plant Mechanic (57.1%) reflect strong employer backing, as these roles are critical for maintaining operational efficiency in machinery-dependent industries.

However, there are significant gaps in support for other trades. For instance, Sewing and Survey Assistant show no support, possibly because these roles are seen as less dependent on formal certifications or rely on informal skill acquisition. Similarly, Upholstery (80% “No”) and Electrician (49.4% “No”) highlight trades where employers may perceive training costs as prohibitive or feel that existing informal skills suffice for job requirements.

 **Table 4.4.3:** Employer Support for Trade-Tested Qualifications and Further TVET

Trades	Yes	Sometimes	No
Motor Mechanic	50.0%	16.7%	33.3%
Heavy Plant Mechanic	50.0%	33.3%	16.7%
Carpenter/joiner	31.3%	21.9%	46.9%
Auto Electrician	75.0%	12.5%	12.5%
Panel Beater	57.1%	0.0%	42.9%
Plumber	38.5%	19.2%	42.3%
Pan Boiler	100.0%	0.0%	0.0%
Turner/Machinist	80.0%	20.0%	0.0%
Boiler Attendant	71.4%	28.6%	0.0%
Welder/fabricator	52.9%	20.6%	26.5%
Block layer/plasterer	35.2%	26.7%	38.1%
Electrician	32.1%	18.5%	49.4%
Sewing	0.0%	0.0%	100.0%
Electrical Wireman	38.5%	23.1%	38.5%
Construction Plant Mechanic	57.1%	28.6%	14.3%
Fitting	50.0%	0.0%	50.0%
Radio/TV Mechanic	50.0%	0.0%	50.0%
Upholstery	20.0%	0.0%	80.0%
Survey Assistant	0.0%	0.0%	100.0%
Other, specify	45.8%	20.8%	33.3%

Source: Employer Survey, 2024

Employers are at the forefront of supporting employees to access and complete trade certification for their trades. Figure 4.4.2 shows that financial assistance (31.2%) and time off for training (30.5%) are the most common forms of support provided by employers, reflecting a strong commitment to enabling employees to enhance their qualifications without financial or time-related constraints. Partnerships with training institutes are only at 5.0%, which suggests that many employers do not have formal relationships with local training institutions. This low engagement may reflect a lack of awareness about the benefits of such partnerships or limited availability of programs tailored to work-based learning models. However, insights from Key Informant Interviews (KIIs) revealed that fostering stronger partnerships between employers and training institutions can play a crucial role in bridging skills gaps. Such collaborations do not only help align curricula with industry requirements but also facilitate internships and job placements for students, enhancing their employability and providing employers with access to a more prepared workforce.

Figure 4.4.2: Support Offered to Employees to Obtain Accredited Trade Certifications

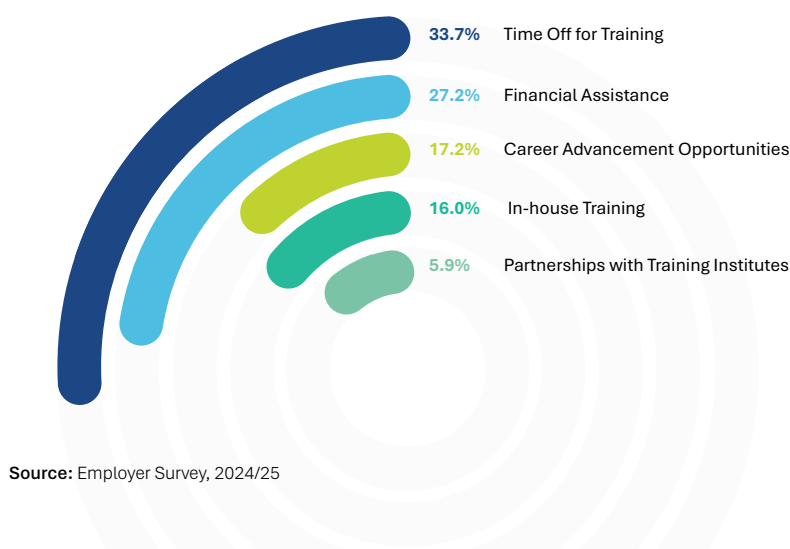
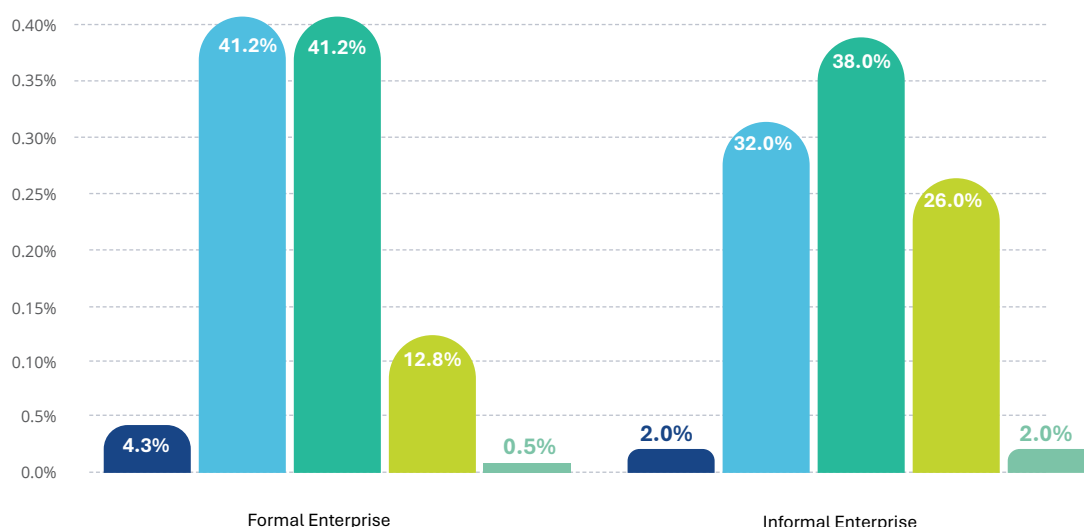


Figure 4.4.3 illustrates employer perceptions of the availability of accredited training and certification programs in Eswatini. Less than 5% of the employers are satisfied with the available systems. However, formal enterprises are evenly split between fair (41.2%) and good (41.2%), reflecting moderate satisfaction. This likely stems from better access to structured training programs and partnerships with training institutes. However, 12.8% rated availability as poor, indicating that some formal industries face challenges in finding programs that align with their specific needs or emerging technologies.

In informal enterprises, satisfaction is lower, with fair (32%) and good (38%) being the most common ratings but 26% rating availability as poor. This higher dissatisfaction may be due to limited access to training resources in rural or underserved areas, as well as financial constraints that prevent informal employers from engaging in certification programs.

Figure 4.4.3: Ratings of the Current Availability of Accredited Training and Certification Programs



Source: Employer Survey

When asked about the challenges faced in recruiting trade-tested individuals, employers indicated that 27.2% reported no major issues, while a majority (72.8%) experienced some challenges. A key concern is the gap between employer wage offerings and graduate expectations, with 20.9% of employers citing high salary demands as a recruitment barrier. Additionally, 10.1% of employers reported difficulty finding trade-tested or fully qualified applicants. This concern is reinforced by complaints around a lack of practical experience and poor curriculum alignment, indicating that many graduates are not adequately prepared for the realities of the workplace. Together, these issues reflect a system that, while producing graduates, still struggles to ensure their readiness and competitiveness in the labour market. Moreover, there is a need to address issues of skill, expectations, and realistic employment conditions.

Table 4.4.4: Employer Challenges in Recruiting Trade-Tested Employees

Challenges	Percentage (%)
Lack of skilled candidates	7.8%
High competition from other employers	9.1%
Insufficient number of trade-tested/qualified applicants	10.1%
Applicants lack practical experience	7.7%
Poor alignment of the TVET curriculum with industry needs	4.3%
High salary expectations from qualified candidates	20.9%
Difficulty in verifying trade certifications	2.3%
Limited access to accredited training institutions	1.5%
Geographic location limits access to skilled workers	0.8%
TVET graduates lack soft skills (e.g., communication, teamwork)	2.3%
TVET graduates lack digital literacy or modern technical skills	5.0%
No significant challenges	27.2%
Other	1.0%
Total	100.0%

Source: NLMSP Employer Survey, 2024/25

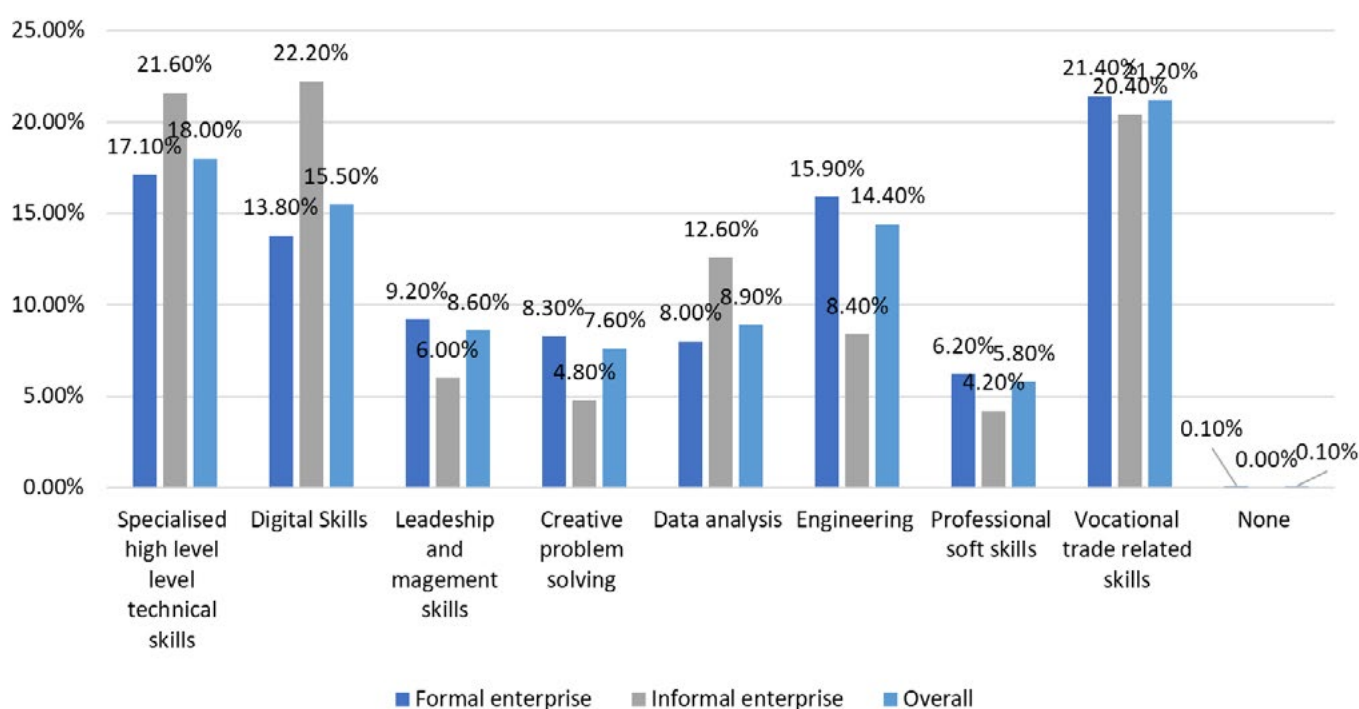
Future and emerging skills

As industries evolve and new technologies emerge, the demand for skilled workers in innovative and non-traditional trades continues to grow. However, many emerging trades currently supplied in the market lack formal trade testing, creating gaps in quality assurance, skill recognition, and workforce preparedness. Insights from graduate surveys, key informant interviews (KIIs), and global research emphasise the urgent need to expand Eswatini's trade testing frameworks to align with industry demands and global trends.

Key informant interviews revealed additional high-demand skills, including robotics, artificial intelligence (AI), automation, ICT, and cybersecurity. These skills are integral to supporting industries undergoing digital transformation, ensuring that Eswatini's workforce is prepared for technological advancements. Figure 4.4.4 highlights the skills anticipated to be crucial for organisations in the next 5–10 years, with vocational trade-related skills (21.2%) and specialised high-level technical skills (21.6%) emerging as the most critical across both formal and informal enterprises. This reflects the increasing reliance on hands-on expertise and specialised technical knowledge to drive productivity and innovation.

Digital skills (18%) rank as another essential skill, underscoring the importance of navigating digital transformation in the future. Leadership and management skills (15.5%) also feature prominently, highlighting the growing demand for effective leadership to manage evolving workplace dynamics and drive strategic goals. Engineering skills (15.9%) stand out particularly in formal enterprises, emphasising the role of STEM competencies in meeting future industry needs, especially in construction, energy, and manufacturing. Additionally, skills like data analysis (12.6%) and creative problem-solving (8.6%) are gaining importance, reflecting the need for critical thinking and evidence-based decision-making in an increasingly complex work environment.

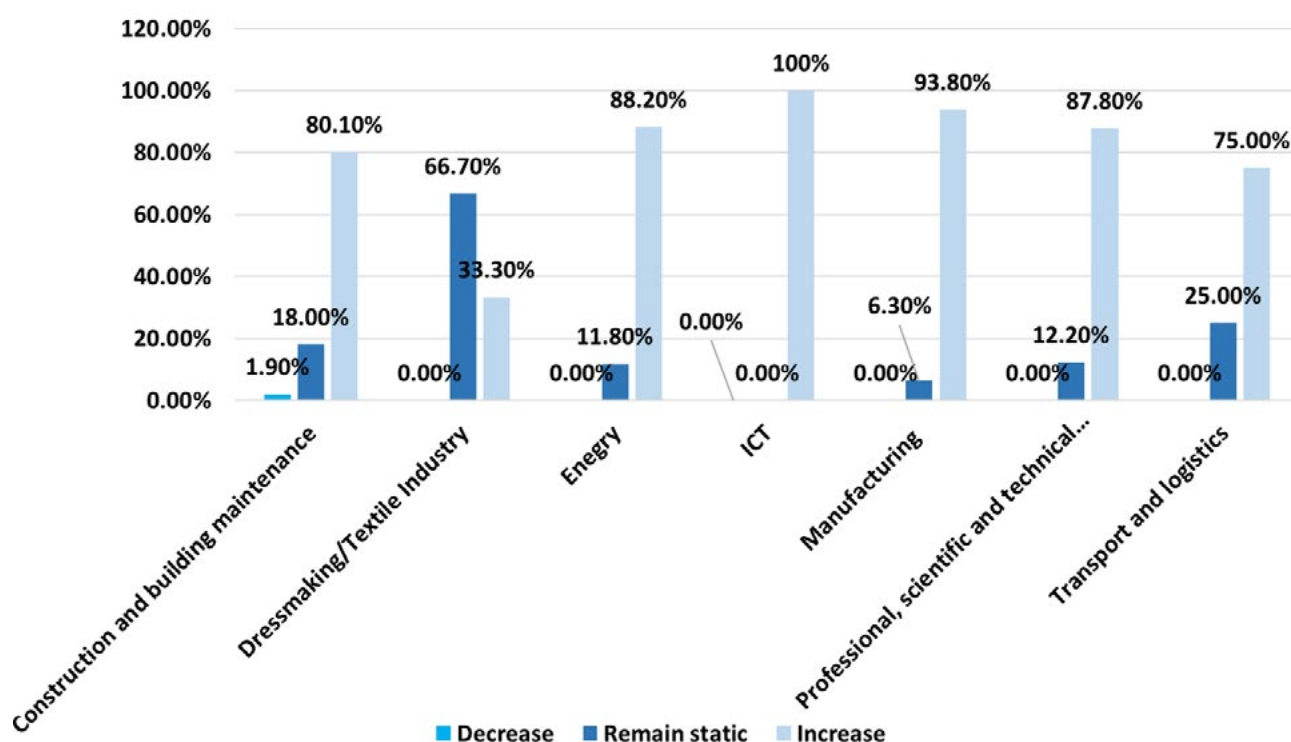
Figure 4.4.4: Skills Anticipated to Be Crucial for Organisations Over the Next 5–10 Years



Source: NLMSP Employer Survey, 2024/25

Employers in most sectors anticipate an increased need for new TVET skills over the next 3 – 5 years, with 100% of those in the ICT sector, 93.8% in manufacturing, and 87.8% in professional, scientific, and technical services. Only the Construction/Building Maintenance reported a share of decreased skill needs of 1.9%. Other sectors reported static skills demand, especially dressmaking/textile (67%) and transport and logistics (25%).

Figure 4.4.5: Projected Need for New Skills Over the Next 3-5 Years



Source: NLMSP Employer Survey, 2024/25

According to IRENA, 2023, FAO, 2022, UNEP, 2023 some of the emerging skills driven by global environmental changes, lifestyle changes, and sustainable development imperatives are shown in Table 4.4.5. Health-related fields, including wellness trainers, occupational therapy assistants, and medical equipment technicians, are emerging as preventive healthcare and rehabilitation gain importance. Lastly, according to the ILO, emerging occupations such as hairdressing, nail technicians, and makeup artistry are gaining prominence in the job market, driven by the growing demand for personal care and beauty services (ILO, 2021). Local skills centres should incorporate these trades into their training programs and align them with formal trade testing certifications to ensure standardisation and quality assurance (SADC, 2022). For instance, countries like South Africa have developed trade testing frameworks for beauty and wellness occupations, validating practical skills through hands-on assessments and theoretical exams (TVET South Africa, 2020).

Table 4.4.5: Future and emerging skills

Sector	Skill
Renewable Energy	Solar Panel Installation Technician, Wind Turbine Maintenance Specialist, Bioenergy Systems Operator
Agriculture	Precision Farming Specialist, Agripreneur (with skills in drones, GPS mapping, and automated irrigation)
Construction	Green Building Specialist, Heavy Machinery Operator
Health	Wellness Trainer, Occupational Therapy Assistant, Medical Equipment Technician
Transport and logistics	EV Technician (battery maintenance, charging station installation, drivetrain repair)
Food Production	Artisanal Food Production Specialist (e.g., speciality breads, cheeses)
Waste Management	E-waste Recycling Technician
Beauty and cosmetics	Hairdressing, nail technicians, and makeup artistry

Source: NLMSP Employer Survey, 2024/25

Similarly, Eswatini's trade testing system could expand to certify skills already taught in local centers, such as dressmaking and artisanal crafts, to enhance the employability of graduates and their competitiveness in regional markets (UNESCO-UNEVOC, 2022). Introducing trade tests for these high-demand occupations will not only provide structured pathways for learners but also ensure alignment with global standards, offering graduates greater opportunities in both formal and informal employment sectors (World Bank, 2019). Updating the Eswatini Qualifications Framework to formally recognise these trades and piloting trade testing programs for high-demand areas like renewable energy, AI, and precision farming can validate standards and methodologies before full implementation.

4.5 Evaluation of the eswatini technical and vocational skills certification enhancement

4.5.1 Project Outputs and Outcomes



Project Outcome: Increase the number of certification candidates by 25% compared to the initial project



The project aims to increase the number of certification candidates by 25% compared to the initial baseline, while updating certification standards for critical sectors such as electrical and mechanical engineering, auto repair, machinery, and tourism and hospitality to align with the Southern African Development Community Qualifications Framework (SADCQF). These updated standards will ensure Eswatini's workforce is equipped with skills recognised regionally and internationally, enhancing both the quality and mobility of certified professionals. Addressing skills gaps in these key sectors, the project will foster innovation, improve productivity, and strengthen industries crucial for economic growth, including tourism, which is becoming a cornerstone of national development, and technical fields like engineering, which are essential for industrialisation and infrastructure expansion.

The project's deliberate alignment with national priorities and regional frameworks has ensured long-term sustainability, with the integration of the SADCQF enabling certifications to gain broader recognition and provide graduates with access to employment opportunities across Southern Africa. Collaboration with industry stakeholders and regional technical experts has further ensured that certification updates align with market demands, maintaining the project's relevance and impact. However, retaining certified professionals poses a challenge, as many migrate for better opportunities abroad, limiting the immediate local benefits of increased certifications. The increase in certified skilled personnel will support the country's broader development goals by boosting economic competitiveness, attracting foreign investment, and creating a more resilient labour market. Incorporating sustainable practices into certification standards, particularly in fields like engineering

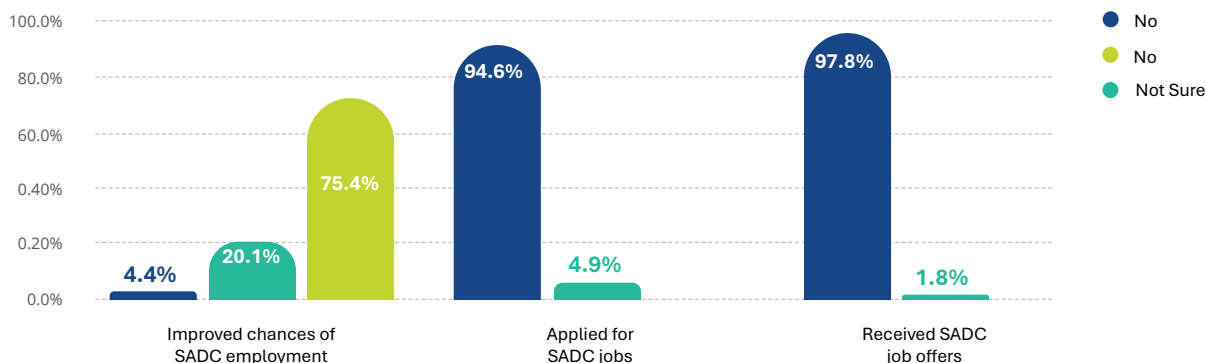
and construction, will also contribute to energy efficiency and environmental sustainability. This initiative aligns with the country's National Development Strategy (NDS) and the African Union's Agenda 2063, supporting inclusive growth and poverty reduction. Beyond immediate workforce improvements, the project's impact will ripple through communities, raising household incomes, driving local economies, and improving the overall standard of living. Through preparing a future-ready workforce, Eswatini is positioned to meet the demands of a competitive global economy and achieve long-term socio-economic development.

The graph shows mixed perceptions and outcomes regarding the alignment of trade test certification with the Southern African Development Community Qualifications Framework (SADCQF). While 20.1% of respondents believe the trade test certificate has improved their chances of employment in SADC countries, a large majority (75.4%) remain unsure, suggesting a need for greater awareness or evidence of the certification's regional recognition.

Despite the goal of alignment with SADCQF, only 4.9% of respondents reported applying for jobs in SADC countries, and an even smaller percentage (1.8%) have received job offers. This may indicate limited mobility or opportunities in the region, as well as potential gaps in marketing the qualifications to regional employers.

The results highlight the importance of increasing regional promotion of the certification and ensuring its relevance and visibility to SADC employers to achieve the project's intended outcome. Additionally, addressing the uncertainty among graduates could help boost confidence in the certification's regional value.

Figure 4.5.1: Respondents Perceived Impact of Trade Test Certification on SADC Employment Opportunities

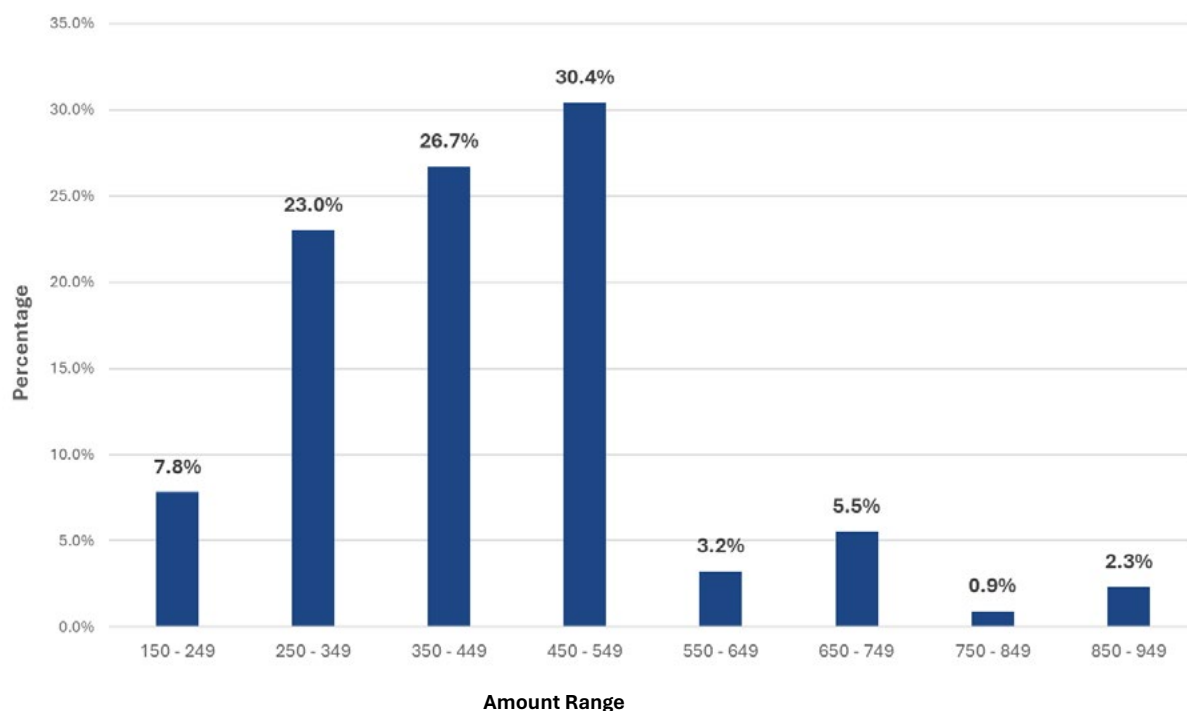


Source: Graduate Tracer Survey, 2024

The responses suggest several strategies to enhance the recognition and value of trade test certifications in SADC countries. Key recommendations include aligning the certification process with the Southern African Development Community Qualifications Framework (SADCQF) and ensuring compliance with international standards for grading and testing. Respondents also emphasized the importance of collaboration with international companies and organizations to provide exposure and create opportunities for grade-tested personnel. Additionally, forming a unified SADC trade testing body and promoting standardized testing and salaries across the region were highlighted as critical steps. Increasing awareness of the certification's value through marketing and workshops, particularly with international stakeholders, was also identified as essential for improving recognition and employment prospects across the region. These measures aim to strengthen the credibility and utility of the certification, both locally and internationally.

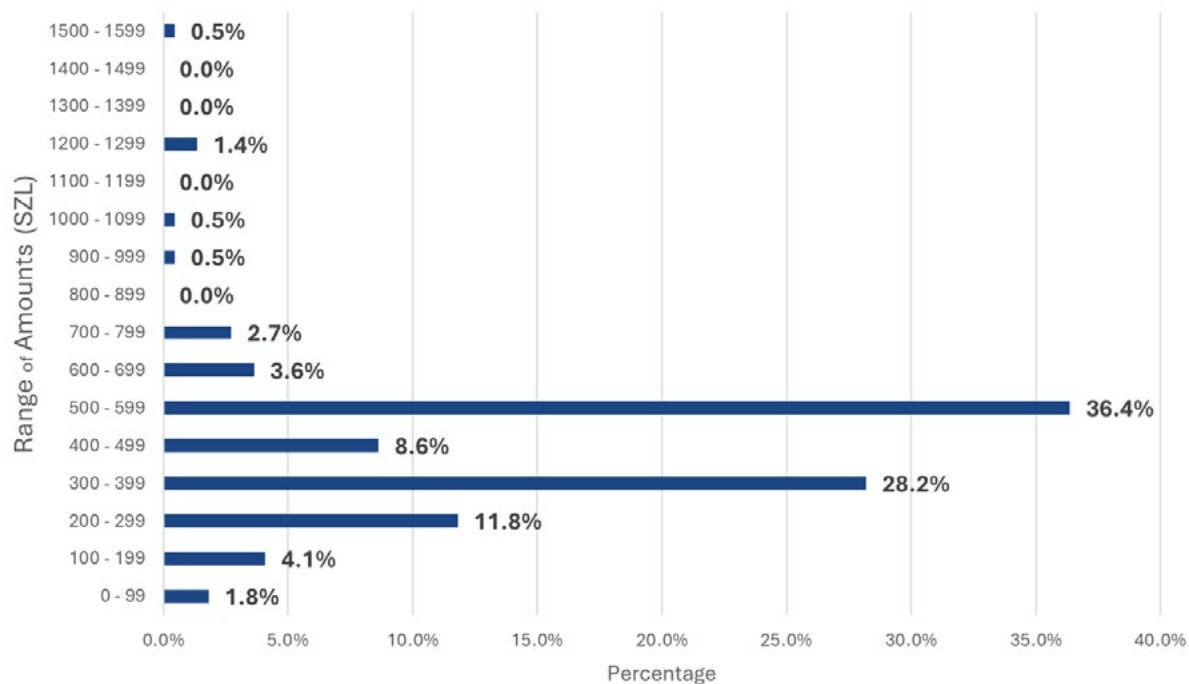
Figure 4.5.2 below illustrates the range of amounts paid by respondents for trade testing. Most (30.4%) of the respondents paid between SZL450.00 - SZL549.00. There were 26.7% and 23% respondents who paid between SZL350.00 – SZL449.00 and SZL250.00 – SZL349.00, respectively. The minimum and maximum amounts paid for trade testing were SZL150 and SZL900.00. The average fee for trade testing was SZL411.15. When asked about the amount they are willing to pay for trade testing, Figure 4.5.2: below shows that the range of amounts cited by the respondents. Most (36.4%) of the respondents are willing to pay an amount that is between SZL500.00 - SZL599.00, while 28.2% said they can pay between SZL300.00 – 399.00 and 11.8% are willing to pay between SZL200.00 – SZL299.00. The average amount they are willing to pay is SZL412.36. These results demonstrate the respondent's willingness to continue to pay trade testing fees that are within the range they are already paying.

Figure 4.5.2: Range of Amounts Paid for Trade Testing



Source: Graduate Tracer Survey, 2024

Figure 4.5.3: Range of Amounts Respondents are willing to pay for Trade Testing



Source: Graduate Tracer Survey, 2024

Output 01



Expand Trade Testing Capacity

This output focuses on enhancing the capacity of Eswatini's trade testing system to meet the growing demand for skilled professionals in high-priority trades. The aim is to align trade testing with industry needs, increase the number of candidates assessed across various skill levels, and ensure greater inclusivity, particularly for female candidates. Expanding trade testing capacity not only addresses existing skills gaps but also ensures that certification processes are accessible and relevant to evolving labour market demands.

Between 2021 and 2023, the electrical wiremen trade had a consistent number of candidates tested across different grades, with a peak of 183 beneficiaries in 2021, including 152 at Grade 3. In 2022, the project diversified trade testing by introducing assessments in welding and motor vehicle mechanics at Grade 3, benefitting 40 and 45 candidates respectively. By 2023, trade testing for motor vehicle mechanics grew further, with 64 candidates assessed at Grade 3, while electrical wiremen testing expanded to 111 candidates, including 79 at Grade 3 and 32 at Grade 2. These achievements demonstrate the project's success in scaling trade testing services, addressing high-demand skills, and setting the foundation for future growth in inclusivity and capacity.

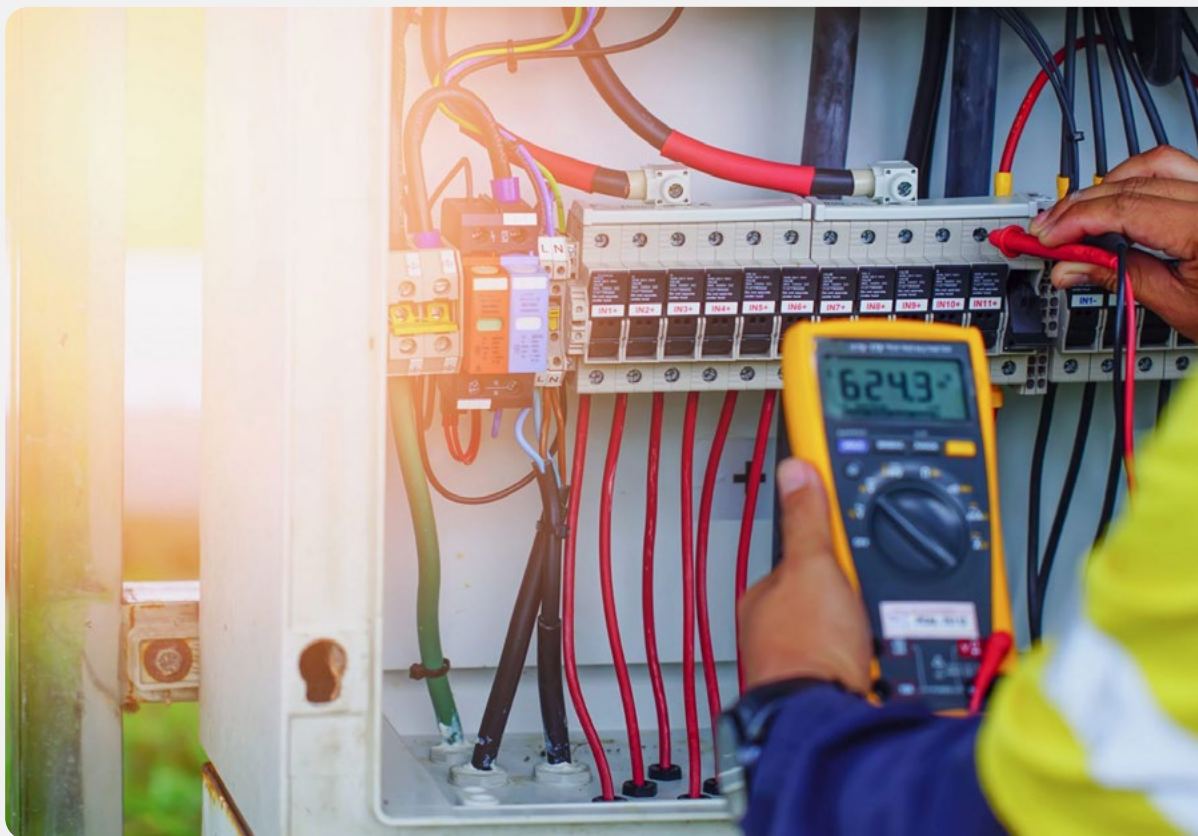
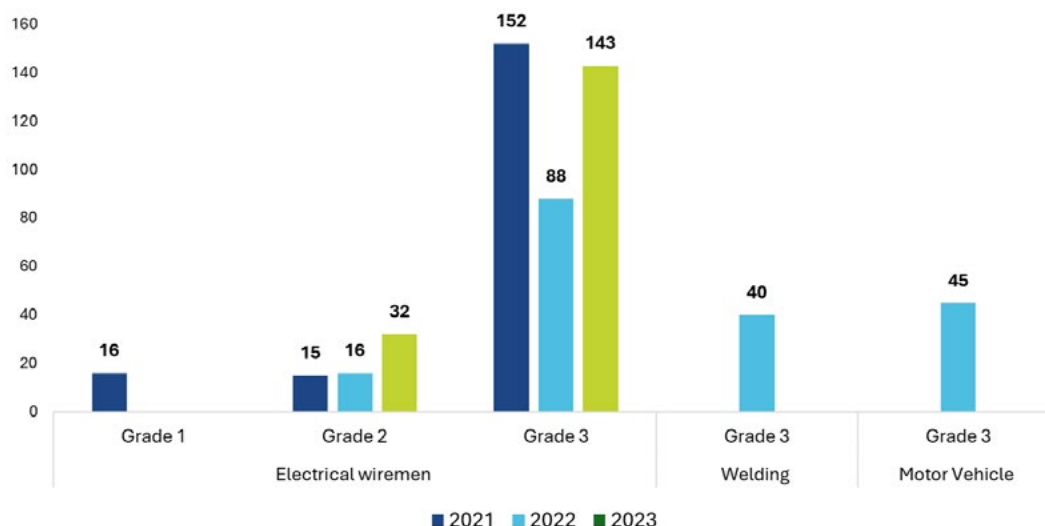


Figure 4.5.4: Trade Testing Trends Across High-Demand Trades

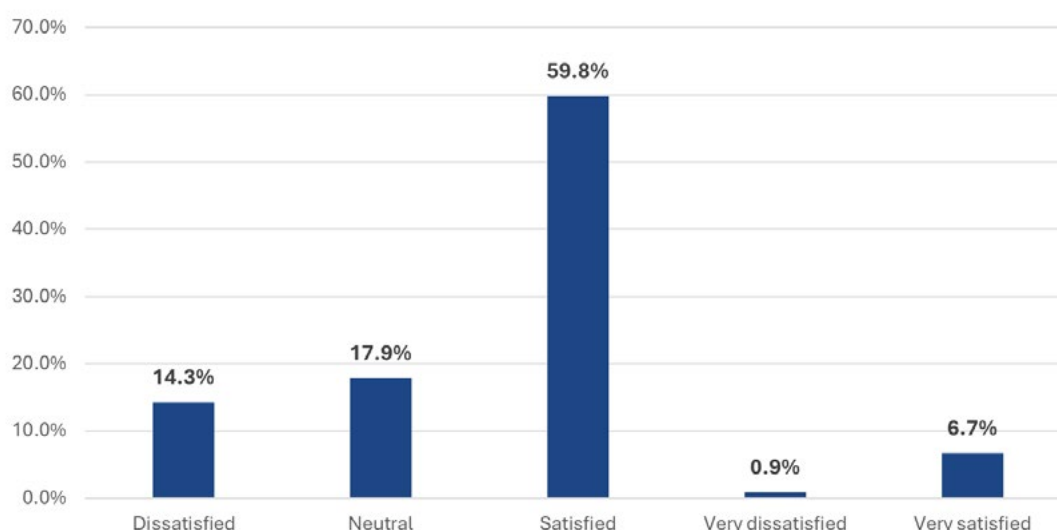


Source: TVET Skills Certification Project Brochure 2024

The modernisation of trade testing venues has significantly improved the quality and credibility of assessments, while collaboration with industry partners has ensured alignment with real-world skill demands. Furthermore, targeted outreach and awareness programs have successfully encouraged greater participation in the expanded trade testing framework. However, a notable challenge remains the underrepresentation of women in technical trades, despite initiatives to reserve specific quotas for female candidates. This highlights the ongoing need for advocacy and support mechanisms to address cultural and systemic barriers to inclusivity.

When asked about the recognition of their trade test certificates by employers, the majority of respondents (over 60%) reported being satisfied, while a smaller proportion expressed neutrality or dissatisfaction. Very few indicated being very dissatisfied, though a notable minority reported being very satisfied. This highlights a generally positive perception but also reveals gaps in full recognition by employers. These results align with the project’s goal of enhancing its trade testing system to better meet the growing demand for skilled professionals in high-priority trades, ensuring that certifications are widely recognized, increasing inclusivity, and addressing industry-specific needs effectively.

Figure 4.5.5: Employer Recognition of Trade Test Certificates: Perceptions



Source: Trade Testing Tracer Survey, 2024



This initiative centres on enhancing Eswatini's training and certification systems to address the needs of high-demand trades, ensuring alignment with industry requirements and national development objectives. Unit standards form the cornerstone of competency-based education and training by detailing the specific abilities and knowledge required for various occupations. Revising and developing these standards guarantees that training programs remain current, align with employer needs, and prepare graduates with skills that are acknowledged across industries. This approach is vital for cultivating a proficient workforce capable of driving Eswatini's economic progress and adapting to a continually evolving labour market.

Significant achievements have been made in this area. In 2021, two experts from Namibia specialising in electrical wiremen and hospitality & tourism were invited to facilitate workshops on the development of unit standards. This collaboration helped build the foundation for competency-based training in these high-priority trades. By 2022, the unit standards and qualifications for electrical wiremen, hospitality & tourism, and HVAC (Heating, Ventilation, and Air Conditioning) were finalised, covering Levels 2 to 4 of the Eswatini Qualifications Framework, across six trades. These standards are now available for implementation, providing a clear pathway for skill development and certification.

In 2023, the project shifted its focus to developing unit standards for welding and motor vehicle mechanics, two additional high-demand trades. Progress has been steady, with Level 3 standards completed for both trades. However, further work is needed to develop unit standards for higher levels in these trades and expand the scope to include other critical areas, such as renewable energy, automation, and precision agriculture, which have been highlighted in industry assessments as emerging priorities.

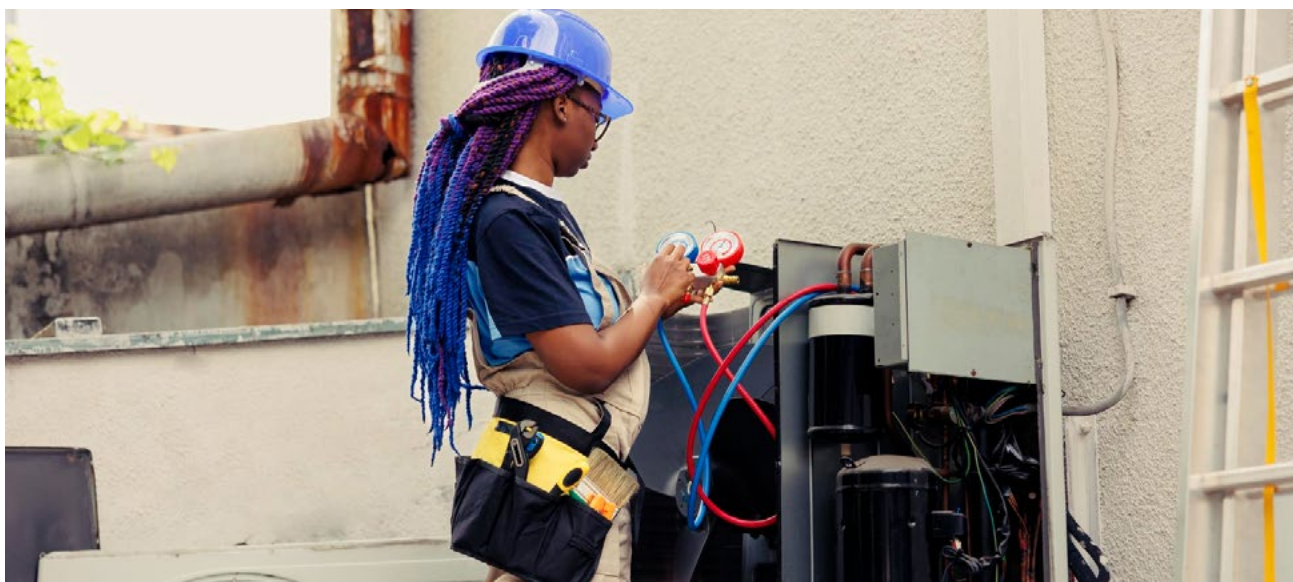
Cross-border collaboration with experts from Namibia brought regional best practices into Eswatini's unit standard development process, while extensive stakeholder engagement ensured the standards were aligned with industry demands. Despite these achievements, the project encountered challenges in expanding its scope to emerging fields such as renewable energy and precision agriculture, largely due to resource constraints and limited technical expertise.

Table 4.5.1: Achievements in Developing Unit Standards for High-Demand Trades

Year	Achievements
2021	- Engaged 2 experts from Namibia specialising in electrical wiring and hospitality & tourism. - Facilitated workshops to develop unit standards for these high-priority trades.
2022	- Finalised unit standards and qualifications for: - Electrical Wiremen - Hospitality & Tourism - HVAC (Heating, Ventilation, and Air Conditioning) - Covered Levels 2 to 4 across six trades. - Standards made available for implementation to guide training and certification.
2023	- Focused on welding and motor vehicle mechanics as additional high-demand trades. - Completed Level 3-unit standards for both trades. - Identified emerging priority areas, including renewable energy, automation, and precision agriculture.
Future Goals	- Develop unit standards for advanced levels in welding and motor vehicle mechanics. - Expand scope to cover emerging fields highlighted by industry (e.g., renewable energy, automation). - Strengthen collaboration with industry stakeholders and global partners to align with best practices.

Source: TVET Skills Certification Project Brochure 2024

Moving forward, the project will continue to engage industry stakeholders and technical experts to ensure that new unit standards remain aligned with labour market trends and technological advancements. Strengthening collaboration with regional and international partners can also help benchmark Eswatini's standards against global best practices. Ultimately, these efforts will provide Eswatini with a robust and relevant qualifications framework that supports skills development, enhances employability, and promotes economic resilience.



Output 03



Empower Trade Advisory Committee and Panel members as well as have Capacity building for trade testing and skills competitions:

The project also aims to empower Trade Advisory Committees, Panel members, and experts in high-demand trades to elevate Eswatini's trade testing systems and skills competition capabilities to international standards. Aligning local practices with those of developed countries, the initiative seeks to ensure that trade tests are rigorous, credible, and reflective of current industry demands. Skills competitions, a key element of the program, are designed to highlight technical excellence, inspire innovation, and position Eswatini as a competitive player on the global stage. These efforts are crucial for fostering a skilled workforce that meets both local and international expectations, contributing to the nation's economic resilience and growth.

In 2022, two experts from Eswatini underwent specialised training in Food Preparation and Refrigeration & Air-Conditioning in Taiwan. The following year, Taiwanese experts provided on-site training in Electrical and Hospitality, while two local lecturers travelled to Taiwan for advanced training in Electrical, Mechanical, and Welding. Additionally, three personnel attended a skills competition workshop, and one participated in a symposium, gaining exposure to best practices in organising and executing such events. International training programs equipped local experts with advanced techniques, while the integration of skills competitions helped elevate the profile of Eswatini's TVET sector. However, limited participation in global skills competitions remains a challenge, potentially hindering Eswatini's exposure to broader technical innovations.



Output 04



Improve trade testing facilities and venues used for high demand trades based on the up-dated unit standards and qualifications:

Improving trade testing facilities and venues is a critical step toward aligning Eswatini's vocational training system with updated unit standards and industry expectations. Modern, well-equipped venues ensure that trade tests accurately reflect real-world scenarios, providing trainees with practical, hands-on assessments that verify their skills and readiness for employment. Upgrading these facilities enhances the credibility of trade certifications, builds employer confidence, and prepares graduates to meet the demands of high-demand trades. Benchmarking visits to institutions in neighbouring countries offer valuable insights into best practices, enabling Eswatini to adopt proven strategies for managing and enhancing its vocational infrastructure.

Key achievements in this area include the refurbishment of DIVT's electrical trade testing venue and ECOT's main and demonstration kitchens, significantly improving their capacity to conduct comprehensive, competency-based assessments. Benchmarking visits in 2022 to the Shukela Training Centre in South Africa, followed by visits to Majuba TVET College and FDT Craft Training Centre in 2023, provided practical knowledge on designing and operating effective training and testing workshops. The lessons from the benchmark ensured that Eswatini's trade testing venues meet modern standards and support the nation's efforts to build a skilled and competitive workforce.

The analysis of service quality in trade testing facilities shows that the majority of respondents rated the various aspects as "Good," with scores ranging from 78.2% to 88.4%, reflecting overall satisfaction with the facilities and processes. The highest "Good" rating was for the appropriateness of the trade test in assessing required skills (88.4%), followed by the professionalism, knowledge, and fairness of assessors (84.4%). This high level of satisfaction can largely be attributed to the Eswatini Technical and Vocational Skills Certification Enhancement Project, which has significantly improved the infrastructure, equipment, and overall service quality of these facilities. However, there is still room for improvement in areas such as the availability and adequacy of materials and inputs (12.0% "Average") and the quality, functionality, and availability of equipment, which received 1.8% "Poor" ratings. This suggests that while the project has had a positive impact, further investment is needed to address these gaps.



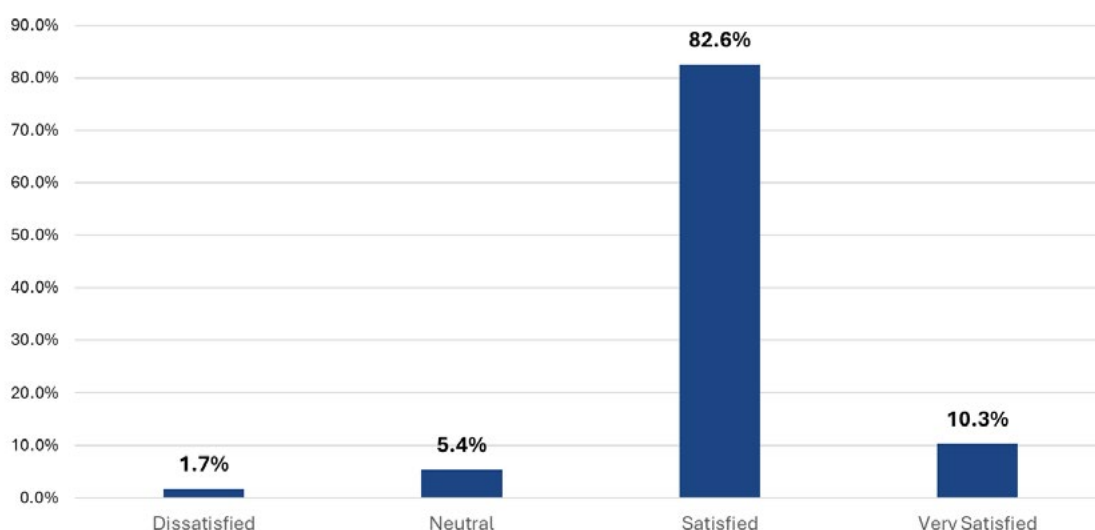
Table 4.5.2: Quality of Facilities

Rate	Accessibility, clarity, and accuracy of trade test information	Professionalism, knowledge, and fairness of assessors	Quality, functionality, and availability of equipment	Appropriateness of the trade test in assessing required skills	Availability and adequacy of materials and inputs
Average	3.1%	1.3%	8.9%	2.7%	12.0%
Excellent	16.1%	14.3%	8.0%	8.9%	8.0%
Good	80.4%	84.4%	81.3%	88.4%	78.2%
Poor	0.4%		1.8%		1.8%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Graduate Tracer Survey, 2024

The survey results reveal a strong level of satisfaction with the overall quality of service during the trade test process, with 82.6% of respondents reporting being “Satisfied” and 10.3% “Very Satisfied.” This high satisfaction level can likely be attributed to improvements driven by the Eswatini Technical and Vocational Skills Certification Enhancement Project, which has focused on upgrading the professionalism of assessors, improving the availability of equipment, and enhancing the overall efficiency of the trade testing process. These efforts have streamlined the experience, ensuring services are delivered with clarity, fairness, and effectiveness, contributing to the overwhelmingly positive responses observed.

Figure 4.5.6: Overall Satisfaction with the Trade Test Process



Source: Graduate Tracer Survey, 2024

Output 05



Improve/introduce new trades and offer upskilling and lifelong training:

The project prioritises improving existing trades, introducing new ones, and providing opportunities for upskilling and lifelong learning to address evolving industry demands. Aligning with the newly developed unit standards and qualifications, the initiative ensures that both individuals and industry professionals can enhance their competencies and achieve certification through trade testing. This approach supports a dynamic workforce capable of meeting the challenges of a modern labour market while fostering continuous professional development.

Under the Lifelong learning programme ECOT and Gwamile VOCTIM are required to offer customised short courses for upskilling to the public and private sector. The classes are available on the weekends on in the evenings on a part-time basis. According to DIVT (2024), to help more EmaSwati, the organisation has subsidised tuition by 40% to 50% and given students free lunches. However, it occasionally gave women in engineering, particularly Programmable Logic Controllers, 100% financing is part of its gender equity and women's empowerment policy. The TVET Enhancement Project was the driving force behind the upskilling and lifetime training centre, which was designed to ensure the sustainability of the labs at ECOT and Gwamile VOCTIM.

Gwamile VOCTIM offers a variety of upskilling courses in: Domestic wiring; Industrial wiring; Electronics; Delta programmable logic controllers (Level I to Level III); and; Air-conditioning and Refrigeration. In automotive engineering, Gwamile VOCTIM offers upskilling courses which include Auto Electrical Fundamentals, Auto Electrical Fundamentals (Including Diagnostics), and Motor Mechanics Fundamentals. It must be noted that currently the focus on upskilling and lifelong learning has been focused on electrical and automotive engineering, and information communication and technology. The progress has been largely witnessed at the Gwamile VOCTIM with regards to electrical and automotive engineering and ECOT is still lagging given that still to date, there no upskilling courses in the electrical engineering department.

ECOT offers upskilling and lifelong learning courses in the ICT space, where it is currently offering upskilling courses in Microsoft Office Skills, C# Programming, and Cyber Security Awareness. Additionally, the Gwamile VOCTIM provides polish-up classes, which are specifically designed for applicants getting ready for a DIVT trade test. According to DIVT (2024) skilled electrical technicians from Eswatini Premier Bakery, Kellog Tolaram, SAWCO Mill, MONTIGNY Mill, Eswatini Water Services Corporation, RFM Hospital, and other establishments participated in the programme. When it comes to teaching programmable logic controllers, industries favour Gwamile VOCTIM (DIVT, 2024).

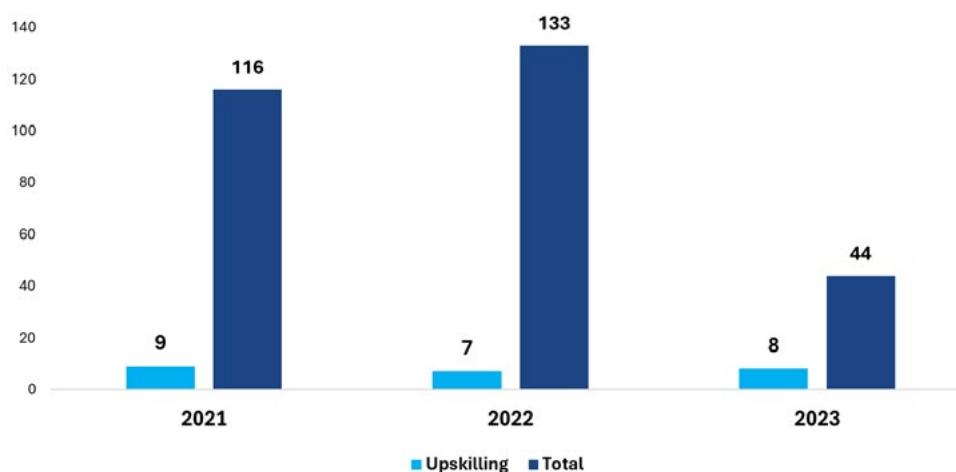
Significant progress has been achieved through upskilling classes and the introduction of new trades. From 2021 to 2023, the project facilitated 19 completed upskilling classes, training a total of 293 individuals, with 5 additional classes currently underway. These programs offered practical, targeted training in high-demand areas. In 2023, the project expanded its scope by introducing two new

trades data processing clerk and food preparation (cook) into the trade testing framework, further diversifying opportunities for certification and skill enhancement. These efforts are vital for building a flexible, future-ready workforce and addressing the country's skills gaps.

The integration of newly developed unit standards and the introduction of trades such as data processing clerk emphasised digitally relevant skills, addressing the increasing digitisation of industries. Additionally, the focus on lifelong learning created pathways for individuals to upskill and adapt to technological advancements, building workforce resilience to market changes. However, challenges included limited participation in upskilling programs, particularly among rural populations with restricted access to training facilities, and the slow adoption of new trades due to low awareness of career opportunities in fields like data processing and food preparation. Addressing these barriers requires decentralised training centers and enhanced outreach initiatives to promote the value of these emerging trades.



Figure 4.5.7: Upskilling Classes

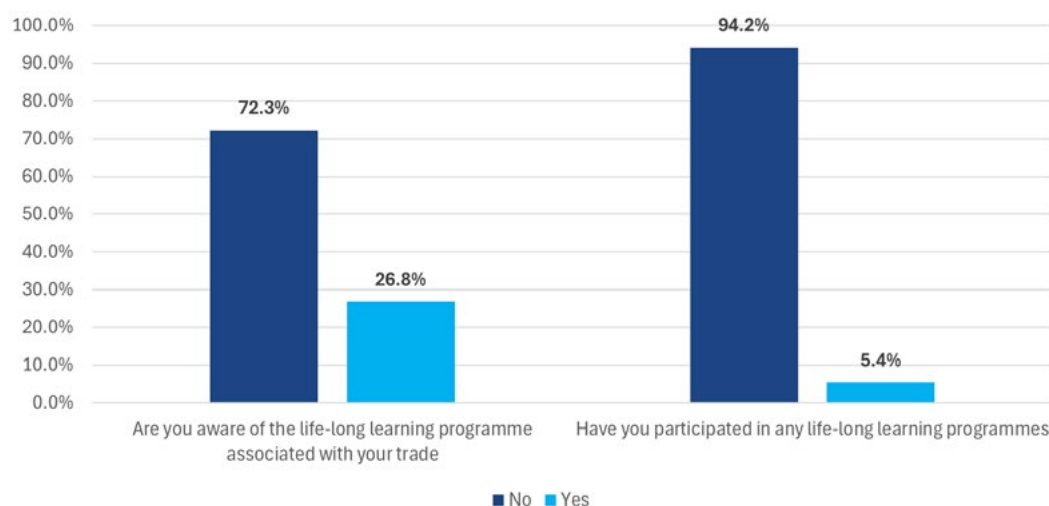


Source: TVET Skills Certification Project Brochure 2024

Figure 4.5.8 highlights gaps in the implementation and awareness of the life-long learning programme. Only 26.8% of respondents are aware of such programmes associated with their trade, while a majority, 72.3%, are not. This indicates a lack of effective communication or promotion of these programmes to trade-tested individuals. Furthermore, participation rates are even lower, with only 5.4% of respondents having engaged in a life-long learning programme, while 94.2% have not.

However, all respondents who participated in the life-long learning programmes reported that the programmes were highly relevant to their trade, underscoring their potential value. These results suggest that while the concept of life-long learning is relevant, its implementation has been limited. To increase participation and relevance, efforts should focus on raising awareness, making these programmes more accessible, and demonstrating their value in enhancing career development and trade-specific skills. This will ensure that life-long learning becomes a more integral and impactful component of professional growth in the trade sector.

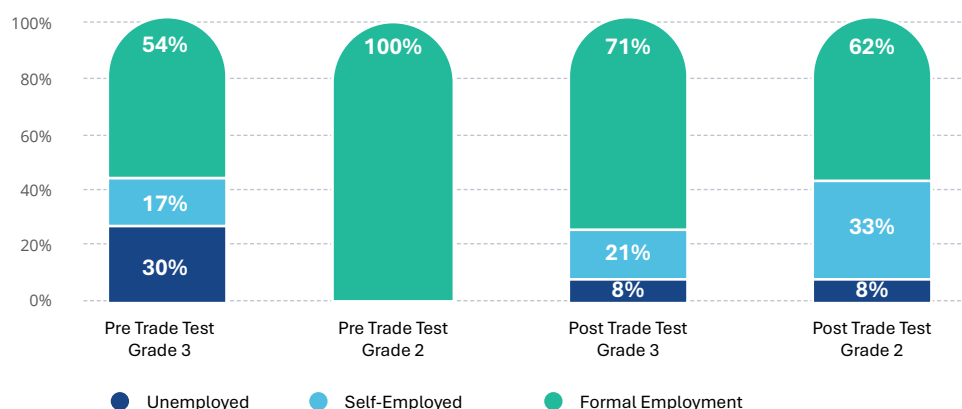
Figure 4.5.8: Awareness and Participation in Life-Long Learning Programmes



Source: Graduate Tracer Survey, 2024

Nevertheless, the project has had a positive impact on the employment and employability of graduates. Based on data from a 2023 survey, the study assesses the impact of trade testing on the upskilling and lifelong learning programme graduates. Figure 4.5.9 shows the employment rate for pre-trade test and post-trade test participants in the electrical engineering programme. For Grade 3, 30% of participants were unemployed before acquiring the certificate, whilst 17% of them were self-employed and 54% in formal employment. After acquiring the test certificate, the unemployment rate for Grade 3 reduced to 8% while self-employment increased to 21%. Demonstrating an increasing interest in entrepreneurship opportunities post-training.

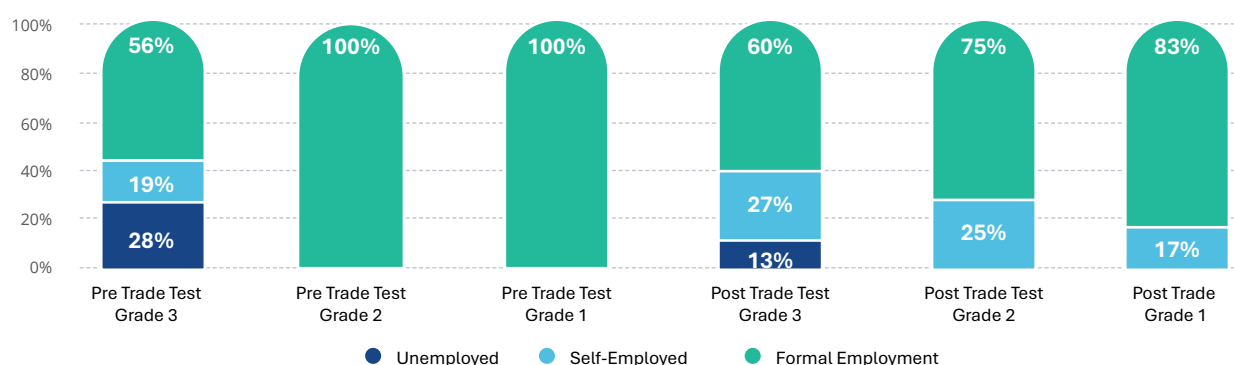
Figure 4.5.9: Employability of Electrical Trade-Tested students



Source: Employer Survey, 2024

Similar results are observed in the automotive cohort, where unemployment reduces for employees with Grade 3 from 28% to 13% (Figure 4.5.10). However, there is an increase in self-employment across all grades, implying that most graduates used the lifelong learning programme and trade tests to start their own businesses.

Figure 4.5.10: Employability of Automotive students



Source: Employer Survey, 2024

As such, this programme demonstrates the value of collaboration in supporting employee development for both industry and training institutions. To ensure maximum reskilling, upskilling, and continuous learning, opportunities for continuous education (both formal and non-formal) should be planned with businesses and accommodate employees' schedules. This means that there is a need to collaborate with colleges to develop open learning platforms for ongoing education at all levels, including elementary, secondary, and advanced levels.

Output 06



Improve/introduce new trades and offer upskilling and lifelong training:

The project aimed to digitalise the information systems for DIVT to enhance efficiency and streamline management processes. This initiative included upgrading the DIVT website, which is now fully operational, with an integrated online application system, making it easier for students and stakeholders to access services and information remotely. Additionally, ICT equipment, including laptops, was procured to support the implementation of the digital systems and improve overall operational capacity. These advancements have significantly reduced manual workloads, improved data accuracy, and speed up application processing times. Moving forward, plans are underway to expand the system's features to include online course registration, payment portals, and a centralised database for better tracking of student progress and certifications. These efforts not only modernise DIVT's infrastructure but also align with global trends in education management, ensuring more accessible, efficient, and responsive service delivery.

The success of this output stemmed from the project's focus on modernising infrastructure and aligning with global trends in education management, ensuring digital systems were relevant and accessible. The introduction of the online application system reduced bureaucratic delays and enhanced stakeholder engagement, while investments in ICT equipment provided staff with the tools needed to manage operations effectively. However, challenges included limited digital literacy among some staff members, which required additional training, and connectivity issues in rural areas, which hindered equitable access to the digital platforms. Addressing these barriers will require ongoing capacity-building initiatives and expanded internet coverage to ensure inclusive access to the systems. Moving forward, plans to expand the system's features—such as online course registration, payment portals, and a centralised database for tracking student progress and certifications—will further modernize DIVT's infrastructure, supporting accessible, efficient, and responsive service delivery to meet evolving demands.

The analysis of timeframes associated with the trade testing process highlights significant variations in efficiency across different stages. Most respondents (86.2%) reported being admitted within 3 weeks to 1 month after submitting their applications, indicating a highly efficient admission process. However, the time between admission and taking the test is more evenly distributed, with 46.4% waiting 2 to 6 months and another 46.0% completing this step within 3 weeks to 1 month. The most significant delay is observed in the time taken to receive certificates after completing the test. A staggering 71.9% reported waiting between 13 months to 2 years for their certificates, with an additional 15.2% waiting 3 weeks to 1 month. This prolonged delay in issuing certificates is a critical bottleneck in the process, contrasting sharply with the relative efficiency of earlier stages. Addressing this issue is essential to streamline the overall trade testing process and enhance graduate satisfaction.

Table 4.5.3: Timeframes for Trade Testing Process Stages

Timeframes	Time taken to be admitted after submitting your application	Time taken between admission and the day you were able to take the test:	Time taken to receive your certificate after completing the test
1 day - 2 weeks	4.9%	6.2%	1.2%
13 months - 2 years	0.4%	0.9%	71.9%
2 months - 6 months	8.0%	46.4%	10.7%
3 weeks - 1 month	86.2%	46.0%	15.2%
7 months - 12 months	0.4%	0.4%	100.0%
Grand Total	100.0%	100.0%	100.0%

Source: Graduate Tracer Survey, 2024

4.5.2 Evaluation Matrix

This section evaluates the performance of the Eswatini Technical and Vocational Skills Certification Enhancement Project based on the OECD DAC criteria. The overall project performance was rated on relevance, coherence, effectiveness, efficiency, impact, and sustainability. The project demonstrated strong relevance and coherence by addressing Eswatini's critical technical and vocational education gaps, though challenges remained in achieving full effectiveness, efficiency, and sustainability. The initiative aimed to enhance vocational certification systems to better align with the Southern African Development Community Qualifications Framework (SADCQF) and Eswatini's national development needs, including reducing youth unemployment and increasing the supply of skilled labour.



Relevance

The Eswatini Technical and Vocational Skills Certification Enhancement Project remained highly relevant to the Kingdom of Eswatini's socio-economic challenges, particularly addressing the alarming youth unemployment rate of 58.2% (ILFS, 2023) and the limitations posed by outdated certification standards that hindered labour mobility and employability.

The project directly aligned with Eswatini's National Development Strategy (NDS, 1997-2022), which prioritised enhancing human capital through skills development to foster economic growth and competitiveness. The project also supported the National Development Plans (NDP, 2020) and the Strategic Road Map 2019-2023, which emphasised creating employment, supporting industrialisation, and enhancing technical training systems to meet market needs.

In addition, the initiative corresponded to the Poverty Reduction Strategy and Action Plan (PRSAP), which focused on providing equitable opportunities for skill acquisition to reduce poverty and inequality. The project's alignment with the Southern African Development Community Qualifications Framework (SADCQF) further ensured that certified professionals met regional standards, enabling labour mobility across neighbouring countries like South Africa. At an international level, the project strongly supported Sustainable Development Goal 4 (Quality Education) by promoting inclusive and equitable access to technical and vocational education and training.

It also contributed to SDG 5 (Gender Equality) by reserving 10% of certification spots for women in male-dominated fields such as electrical and mechanical engineering and heavy plant mechanics, fostering gender inclusivity in technical trades.

The project's focus on high-demand trades such as electrical engineering, hospitality, welding, and motor mechanics addressed critical skills shortages identified in national labour market assessments. Additionally, the development of unit standards for emerging trades like renewable energy and automation reinforced the alignment with Eswatini's national strategy to modernise its workforce and support sectors identified for economic growth. These included hospitality and tourism, which were central to Eswatini's economic diversification strategy, and technical trades essential for industrialisation and infrastructure development.



Effectiveness

The project achieved several key outputs, including certifying over 180 candidates annually between 2021 and 2023 in trades like motor mechanics, electrical wiring, and welding. These certifications improved accessibility to technical skills and contributed to closing labour market gaps. Additional certifications were introduced in emerging trades such as HVAC, renewable energy, and automation, ensuring alignment with future workforce demands. Facility upgrades at institutions such as ECOT and Gwamile VOCTIM significantly enhanced the quality and credibility of trade tests.

Despite these accomplishments, gender inclusivity targets fell short in male-dominated fields, where female participation remained below the 10% target. Systemic challenges, such as cultural biases and limited recruitment efforts, hindered greater gender diversity. Furthermore, while certification rates increased, the lack of mechanisms

to connect graduates with employment opportunities limited the project's immediate economic impact. For instance, certified individuals in technical trades like heavy plant mechanics often struggled to secure relevant jobs. Conversely, fields like hospitality demonstrated better alignment between certifications and job market demands.



Efficiency

The project utilised its resources effectively to achieve significant milestones, such as upgrading testing venues and digitalising processes. Investments in facility upgrades improved the credibility of practical assessments, while digital systems reduced administrative bottlenecks and enhanced data management. The ability to certify over 180 candidates annually reflected efficient resource allocation in high-demand trades like motor mechanics and electrical wiring.

However, delays in fund disbursement and over-reliance on external expertise slowed implementation timelines and created dependencies. For example, while unit standards for HVAC and welding were developed, advanced standards for renewable energy and automation were postponed due to resource constraints. Partnerships with international experts from Taiwan and Namibia provided vital technical knowledge but underscored the need to develop local expertise to ensure long-term efficiency.

The project was funded through contributions totalling USD 2,006,090 from Taiwan (Republic of China) and USD 400,000 from the Kingdom of Eswatini between 2021 and 2025. Although the project operated within budgetary constraints, limitations in resource flexibility hampered responsiveness to emerging needs, such as expanding certification capacity and maintaining upgraded facilities. Addressing these inefficiencies remains crucial for sustaining the project's momentum.

 Table 4:5:4: Source of Funding

Year	Amount (USD)	Source of Funding
2021	126,584	Republic of China (Taiwan)
	50,000	Kingdom of Eswatini
2022	519,593	Republic of China (Taiwan)
	100,000	Kingdom of Eswatini
2023	517,564	Republic of China (Taiwan)
	100,000	Kingdom of Eswatini
2024	512,743	Republic of China (Taiwan)
	100,000	Kingdom of Eswatini
2025	329,606	Republic of China (Taiwan)
	50,000	Kingdom of Eswatini

Source: TVET Enhancement Project document, 2023



Impact

The project significantly improved the technical education landscape by addressing critical skill gaps and aligning certification standards with the SADCQF. Through the introduction of updated unit standards for high-demand trades such as electrical wiring, motor mechanics, and hospitality, the project enhanced the credibility of certifications and regional labour mobility. Graduates in fields like hospitality saw better employment prospects due to strong alignment with industry demand, and the modernised testing facilities laid a foundation for sustainable vocational training. The project's focus on emerging trades, such as renewable energy and automation, positioned Eswatini's workforce to meet future market needs, though their long-term impact remains is yet to be realised. Lifelong learning initiatives and upskilling programs further expanded opportunities for individuals to enhance their qualifications, contributing to the project's broader educational impact.

However, the project's socio-economic impact on employment remained constrained. While certifications increased, the lack of

robust mechanisms to link graduates to industry opportunities limited job placement rates, particularly in technical trades such as welding and heavy mechanics. Gender disparities persisted in male-dominated fields, with female participation falling short of the 10% inclusion target, underscoring the need for targeted initiatives like mentorship programs and scholarships. Many certified individuals remained underemployed or unemployed, highlighting the importance of stronger partnerships with industries to create internships, apprenticeships, and direct hiring pipelines. Addressing these challenges remains essential to ensuring the project's long-term success in driving economic growth and inclusive workforce development.



Sustainability

The project established key foundational structures that significantly contributed to its sustainability. Updated certification standards and unit frameworks for high-demand trades, such as electrical wiring and motor mechanics, ensured that the technical and vocational training ecosystem remained aligned with evolving industry needs. Digital systems introduced by the project, including

the digitisation of certification processes and the creation of an online management system, streamlined operations and improved the efficiency of data management. These advancements reduced administrative burdens and provided a sustainable framework for scaling certification processes. Additionally, enhanced testing venues, such as upgraded facilities for electrical and mechanical trades, improved the quality and reliability of practical assessments, contributing to the long-term credibility of the certification system.

However, challenges to sustainability persisted, particularly the reliance on external funding and limited local capacity for equipment maintenance and upgrades. Maintenance budgets remained insufficient, raising concerns about the longevity of newly refurbished facilities and digital systems. The inclusion of lifelong learning programs and certifications in emerging fields, such as renewable energy and automation, demonstrated forward-thinking resilience strategies, but these required consistent

investment and stakeholder engagement to realise their full potential. Collaborative efforts with industry stakeholders, regional partners, and government agencies were critical to maintaining momentum. For example, the participatory approach used in developing unit standards and facilitating training sessions was identified as a scalable model to ensure buy-in from all relevant sectors.

To further enhance sustainability, the project focused on building local technical capacity for equipment maintenance, integrating fee-based certification models, and securing diversified funding streams. Strengthening partnerships with regional bodies like SADC and local employers ensured certifications remained relevant and well-supported. Additionally, embedding mechanisms to continuously update standards and monitor employment outcomes ensured that the certification system adapted to industry trends, securing its relevance and sustainability for the long term.



Table 4:5:5: Eswatini Technical and Vocational Skills Certification Enhancement Project Evaluation Criteria

Evaluation Criteria	Evaluation Questions	Findings	Score
Relevance	- Were objectives and design aligned with national and global priorities? - Was the project responsive to local needs? - Were strategies appropriate to achieve results?	The project objectives and design were well-aligned with national priorities, such as the National Development Strategy (1997–2022) and the Strategic Road Map (2019–2023), as well as global frameworks like SDG 4 (Quality Education) and SDG 5 (Gender Equality). It addressed key challenges, including youth unemployment and outdated certification standards, while focusing on high-demand trades like hospitality, electrical wiring, and renewable energy. Stakeholder consultations ensured responsiveness to local needs. However, limited flexibility in implementation strategies hindered adaptation to evolving demands, particularly in engaging youth and achieving gender inclusivity in technical trades.	4/5
Coherence	- Did other programs/policies support the project? - Was the project effectively coordinated with stakeholders?	The project complemented national and regional programs such as SADC’s Regional Qualifications Framework and partnered with institutions like ECOT, VOCTIM, and DIVT. Collaboration with Taiwan Technical Mission further enhanced implementation. However, gaps in stakeholder engagement and resource limitations from partners occasionally hampered coordination.	3.5/5
Effectiveness	- Were project outcomes achieved? - Did interventions meet beneficiary needs? - Were monitoring frameworks effective?	Over 180 candidates were certified annually between 2021 and 2023 in high-demand trades such as motor mechanics, hospitality, and electrical wiring. Certification outputs met targets, but low job placement rates limited long-term benefits. Gender inclusivity goals (10% for women in male-dominated fields) were not fully achieved. Operational capacity improved through digitisation, but gaps in linking certifications to industry opportunities constrained effectiveness. The M&E framework lacked consistent follow-up mechanisms, affecting learning and adaptation during implementation.	4/5
Efficiency	- Were resources effectively utilised? - Were outputs achieved economically and within the timeframe?	The project achieved critical milestones, such as refurbished training facilities and digitised certification systems, while staying within budget. International collaborations with Taiwan and Namibia strengthened capacity. However, delays in fund disbursement and an over-reliance on external expertise slowed implementation. Maintenance of upgraded facilities was underfunded, and inefficiencies in data capture hindered decision-making.	3.5/5
Impact	- Did the project address key skill gaps? - How has it influenced socio-economic conditions?	The project modernised Eswatini’s certification framework and increased labour mobility. Trades like hospitality exhibited improved job placement rates, but technical trades such as welding and plumbing saw limited market absorption. Gender disparities persisted, with low female participation in male-dominated trades. Although lifelong learning initiatives expanded opportunities, the absence of mechanisms to link certifications to employment limited socio-economic impact.	3/5
Sustainability	- Are project benefits likely to continue? - What factors support sustainability? - Were exit strategies adequate?	Foundational structures, such as digital systems and updated certification standards, provide a sustainable framework. Lifelong learning programs and certifications for emerging trades like renewable energy show promise but require sustained investment. Exit strategies and partnerships with agencies like DIVT support long-term outcomes, but challenges such as funding reliance and limited local capacity for facility maintenance remain.	3/5

4.6.3 Enhanced Accreditation Framework for TVET Institutions in Eswatini

For an institution or a program to be accredited, ESHEC must be satisfied that the institution meets the requirements of adequate physical infrastructure, qualified human resources, financial stability, approved and relevant academic programs, and a sound governance structure. Accreditation is the formal process through which a TVET institution, program, or trainer is evaluated and officially recognised as meeting the standards necessary to deliver quality education and training in alignment with national and regional benchmarks (UNESCO, 2005). All TVET institutions operating in Eswatini must be registered and licensed under the relevant provisions of the Eswatini Higher Education Act and must comply with national policies and standards governing technical and vocational education and training. As stipulated by ESHEC, institutions failing to meet these requirements may be subject to suspension or revocation of their accreditation, ensuring adherence to quality standards critical for education and training delivery (ESHEC, 2022). To enhance the current accreditation process for TVET institutions in Eswatini, a more robust and comprehensive framework is proposed. This improved system prioritises collaboration among key stakeholders, rigorous evaluation standards, and continuous quality assurance measures to ensure the delivery of industry-relevant education. Through integrating industry feedback, supporting institutions in capacity-building, and aligning programs with both national and regional qualifications frameworks, the proposed flow aims to address gaps in efficiency and responsiveness. This framework not only fosters excellence but also ensures that TVET institutions remain aligned with labour market demands, contributing to Eswatini's economic growth and competitiveness.

➤ **Application and Pre-Screening:**

Institutions seeking accreditation will begin by submitting a formal application to ESHEC. This application includes detailed documentation on facilities, governance structures, instructor qualifications, curricula, and proposed programs. ESHEC will conduct a pre-screening assessment to verify eligibility criteria such as infrastructure adequacy, financial stability, and compliance with minimum operational standards. This step ensures that only institutions meeting minimum requirements proceed to the next evaluation stage.

➤ **Submission of Curriculum and Program Details:**

Detailed program curricula will be evaluated by a task team, including representatives from DIVT, ESHEC, and EQA. The assessment will focus on alignment with national occupational standards, labour market needs, and the Southern African Development Community Qualifications Framework (SADCQF). A strong emphasis will be placed on ensuring curricula maintain a practical-to-theoretical training ratio of 80:20, equipping students with hands-on skills demanded in the workplace. Industry feedback will play a critical role in refining and optimising program content to meet current and future workforce requirements.

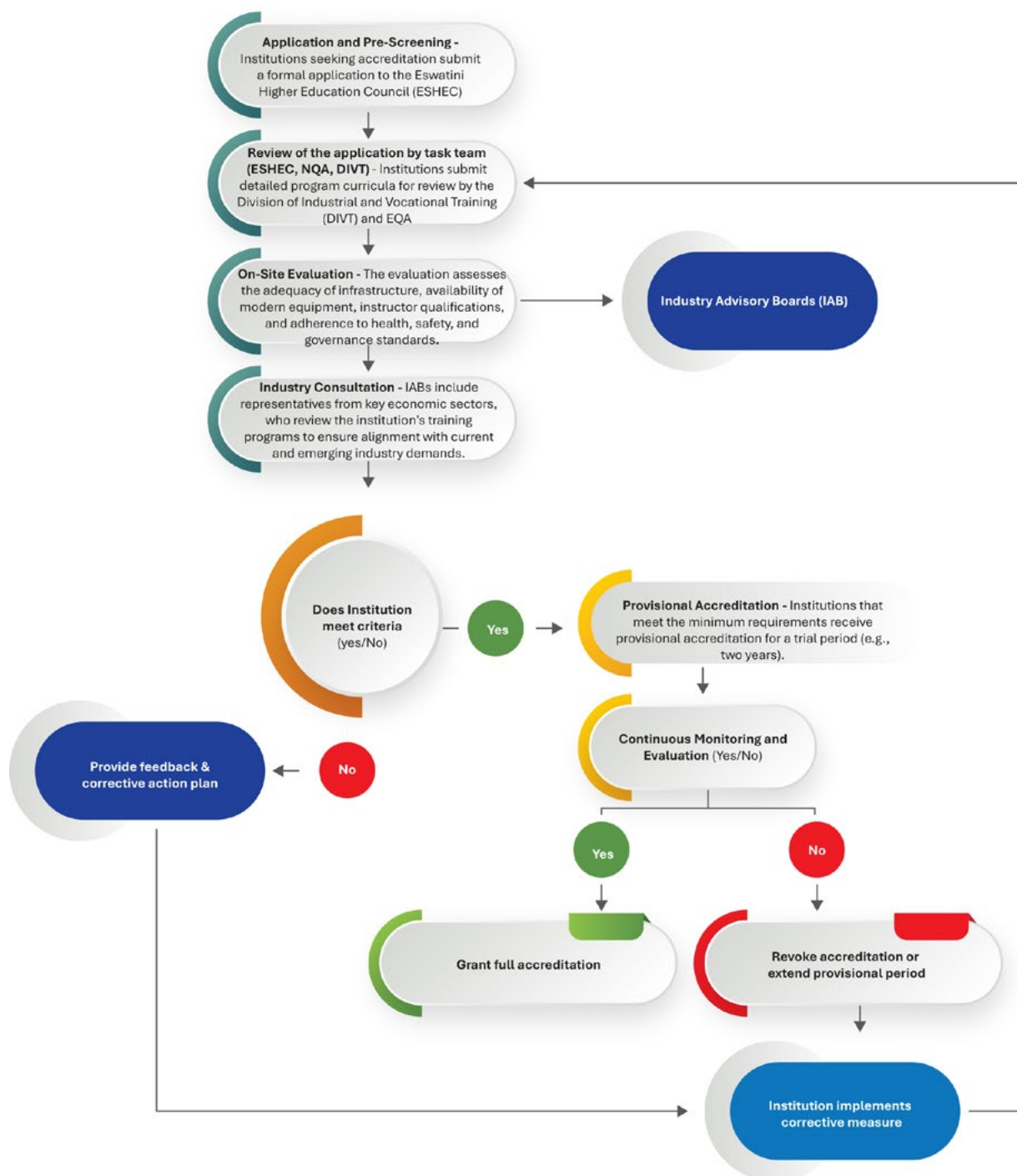
➤ **On-Site Evaluation:**

A joint team from ESHEC, EQA, and DIVT will conduct an on-site evaluation to verify the adequacy of facilities, availability of modern equipment, instructor qualifications, and adherence to health, safety, and governance standards. Industry stakeholders and community representatives will provide feedback to assess the institution's relevance to local needs. This approach ensures that institutions are well-equipped to provide high-quality, relevant training.

- **Industry Consultation:** Comprising representatives from key economic sectors, Industry Advisory Boards (IABs) will validate and review curricula, recommend improvements, and facilitate opportunities for internships, apprenticeships, and industry exposure. This collaboration ensures that TVET programs align with industry requirements, fostering the employability of graduates and promoting partnerships that enhance the quality of training.
- **Provisional Accreditation:** Institutions meeting the minimum standards will receive provisional accreditation for a trial period (e.g., two years). During this phase, institutions must demonstrate consistent program quality, address any identified gaps, and submit reports on student outcomes, such as pass rates and employment placement statistics.
- **Full Accreditation:** After successfully completing the provisional phase, institutions will receive full accreditation from ESHEC together with the task team. Accredited institutions will be listed as recognised training providers, and their programs will be granted a certification seal indicating compliance with national and regional standards. Accredited institutions will also be included in a national registry to enhance their visibility and credibility.
- **Continuous Monitoring and Evaluation:** Accredited institutions will undergo periodic quality reviews every three to five years to ensure sustained excellence. Reviews will focus on student performance, employability, curriculum updates, and maintenance of facilities. Institutions failing to maintain standards may face suspension or revocation of accreditation.
- **Stakeholder Feedback and Policy Updates:** Regular feedback loops with industry stakeholders, students, and graduates will inform continuous improvement of programs and policies. Accreditation guidelines will be updated periodically to reflect technological advancements, regional trends, and evolving labour market demands. These feedback loops will help update accreditation policies and programs to reflect technological advancements, regional trends, and evolving labour market demands.
- **Support for Institutions:** To ensure inclusivity, ESHEC and EQA will provide training, technical assistance, and funding support to institutions struggling to meet minimum criteria. Public-private partnerships will also be leveraged to enhance infrastructure and provide internships, ensuring institutions are well-equipped to deliver high-quality training.



Figure 4.5.11: Eswatini Accreditation Process





05

Conclusion

The Eswatini Technical and Vocational Skills Certification Enhancement Project aims to evaluate and strengthen the TVET certification process, ensuring it meets industry standards, supports skills development, and contributes meaningfully to national economic growth and workforce readiness.

Conclusion

The purpose and undertaking of this activity were to thoroughly assess the Technical and Vocational Education and Training (TVET) certification process to make sure that it is efficient, and in line with industry standards and helps students in Eswatini enhance their skills and abilities. This included the evaluation of the Eswatini Technical and Vocational Skills Certification Enhancement Project to ascertain how the skills certification procedure satisfies the demands and expectations of the industry today and ascertain the direct effects. This was done through performing a tracer survey; reviewing the trade testing system for Eswatini using a desktop review; determining whether new and developing talents or trades are in line with Eswatini's key development areas; evaluating Eswatini's pre-vocational skills development system and how it relates to trade testing. Additionally, this exercise provides doable suggestions for enhancing the TVET certification procedure, the grading scheme, and overall quality control procedures.

It has transpired that the Eswatini Technical and Vocational Skills Certification Enhancement Project has made significant strides and significant contributions in addressing the skills gap and skills mismatch that is currently prevalent in the country intending to align vocational training with national industry needs. While progress has been made, there are areas of improvement in critical areas that need attention to truly embrace and optimise the significance of vocational education. Important conclusions include the necessity of raising the calibre and applicability of TVET programmes to satisfy the changing needs of domestic and international labour markets. The Eswatini Technical and Vocational Skills Certification Enhancement Project has also demonstrated the need for greater industry involvement in curriculum development, hands-on training, and the certification process to guarantee that training programmes are in line with the demands of real-world employment. It also highlights the necessity of a stronger certification programme that might encourage lifelong learning and improving

graduates' employability.

Furthermore, to fully realise the potential of TVET reforms, issues including limited resources, inadequate infrastructure, and low industry participation must be resolved. Maintaining the impact of the project will depend on securing sufficient funds, enhancing public-private collaborations, and increasing access to high-quality training nationwide. In the end, the Eswatini Technical and Vocational Skills Certification Enhancement Project is a promising model for the TVET reform in the country and potential the SADC region; however, to overcome current obstacles and further raise the standard and accessibility of technical education in Eswatini, more work, improved cooperation, and consistent funding will be needed. This study emphasises the necessity of an adaptable strategy that is focused on developing a competent labour force capable of propelling the nation's socioeconomic development and sensitive to the constantly shifting demands of the sector.

In summing-up, the TVET Eswatini system provides a special chance to solve problems related to vocational education within the constraints and guarantee economic expansion and advancement. Eswatini can develop the skills necessary to lower unemployment and advance sustainable development by promoting upskilling, reskilling initiatives, and putting in place continuous and adult learning education programmes. Furthermore, it is advised that the government cooperate with TVET colleges, industry, and other parties is strengthened to provide high-quality vocational education that ensures Eswatini's economic, social, and cultural advantages. The country's electricians, welders, masons, and artisans need to be continuously capacitated through reskilling and upskilling programmes, and there is still more work to be done to ensure that ambitious goals are met by sufficiently encouraging from lower poverty to pursue vocational training by redesigning the curriculum to meet the demands of the labour market.

6.0 Recommendations

1. Create dynamic awareness campaigns for ongoing lifelong-learning programs that enable workers to continuously adapt their skills through targeted upskilling, reskilling, and cross-skilling approaches.
2. Modernise HR policies to provide a supportive ecosystem that encourages and rewards professional skill development, recognises work-based learning and encourages employee growth.
3. Implement incentives to encourage industry participation in internship and apprenticeship offering.
4. Update and rationalise training programs by introducing courses in emerging fields like renewable energy, ICT, and automation, while phasing out outdated curricula.
5. Enhance vocational trade certification for more trades to create more occupational standards that are aligned to industry demand and inform programming and training in vocational training institutions.
6. Strengthen industry involvement in skills development by implementing a targeted sectoral approach that targets strategic dialogue, curriculum design and review, internship programming, and sustainable funding models for national human resource development initiatives
7. Increase investment in TVET infrastructure to ensure that tertiary institutions are well supported with modern equipment and the latest technology.
8. Strengthen professional development programs for TVET educators and general HE trainers to improve instructional quality and ensure alignment with industry trends.
9. Create a centralised graduate tracking system to assess employment outcomes and program effectiveness.
10. Strengthen ESHEC's accreditation processes to ensure tertiary institutions deliver high-quality skills training, ultimately producing competitive graduates ready to capitalise on regional development opportunities.
11. Regularly evaluate the relevance of training programs and certification standards to ensure alignment with evolving labour market needs.



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