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Bespoke Reform Strategies of Responsive TVET Systems in Africa: A Review of Leading GTC Index Countries in Africa

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ABSTRACT

In this study, a comparative examination of the reform initiatives for Technical and Vocational Education and Training (TVET) in the ten African nations that are ranked highest according to the 2023 Global Talent Competitiveness Index is presented. This study explores the ways in which these countries; including Mauritius, Egypt, Mauritania, Zimbabwe, Ghana, Benin, Kenya, Namibia, South Africa, and Zambia, have attempted to realign their vocational curricula with the demands of the labour market. The paper draws on policy documents, reports submitted by international agencies, and academic literature. Our assessment focusses on four fundamental aspects of reform: the transition to competency-based models, the incorporation of digital technologies, the enhancement of industry partnerships, and the introduction of performance-based funding in conjunction with stringent quality verification measures. Despite the fact that many nations have reported improvements in graduate employability and student happiness, there are still many problems that continue to exist. These challenges include sustainable domestic financing, inequities between rural and urban areas, teacher professional development, and the involvement of the informal economy. The purpose of this study is to provide policymakers with evidence-based insights so that they may develop technical and vocational education and training (TVET) systems and contribute to sustainable economic growth. This is accomplished by synthesising patterns of success and constraint across various governance situations.

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INTRODUCTION

Throughout sub-Saharan Africa, Technical and Vocational Education and Training (TVET) has emerged as a pivotal component of national strategies aimed at combating persistent young unemployment and widespread skills discrepancies. The 2023 Global Talent Competitiveness Index (GTCI) identifies a group of African countries, primarily Mauritius and South Africa, that have significantly invested in vocational education policy frameworks aimed at improving talent development. However, elevated GTCI grades frequently conceal significant structural and execution deficiencies. In South Africa, the National Development Plan's TVET priorities address persistent underfunding and inconsistent sector involvement. In Mauritius, esteemed Sectoral Skills Committees have faced challenges in engaging the informal sector, which constitutes the majority of employment on the island. Comparable tensions between policy objectives and operational realities arise in Egypt's digital learning programs, Ghana's rural-urban resource disparities, and Zambia's emerging degree-level technical and vocational education and training paths.

Academic discussions highlight contrasting interpretations of reform efficacy: normative evaluations commend legislative and institutional advancements, while critical examinations reveal bureaucratic obstacles, societal stigma associated with vocational routes, and the inconsistent application of competency-based frameworks. Furthermore, Africa's largely informal economy, which employs over 85 percent of the workforce, presents distinct requirements for adaptable, context-specific training

solutions. A comprehensive, cross-country assessment of leading GTCI performance can reveal common success factors and persistent obstacles. This study examines the subsequent enquiries: In what manner have prominent African countries organised TVET changes concerning policy formulation, resource distribution, technological incorporation, and quality assurance? What patterns of facilitators and obstacles can be identified throughout these ten contexts? How could these insights influence future policies and practices designed to enhance worker readiness and promote inclusive economic development?

Reforms in vocational education have occurred throughout Africa, albeit at varying rates and with varying outcomes. In order to enhance access, quality, and numerous other priorities, policymakers in each of these nations have sought to improve the status of vocational education. Vocational education in a few African nations ranks in the top 10 and leads the rest of the continent in the global talent competitive index (Benson, 2024). African countries like South Africa and Mauritius are recognised as regional leaders in developing talent through workforce development and education by the Global Talent Competitiveness Index (GTCI) 2023 (Lanvin & Monteiro, 2023). These nations are renowned for their policy frameworks that support Technical and Vocational Education and Training (TVET), a field that is essential to tackling skills mismatches and youth unemployment (UNESCO, 2022). Academic research, however, shows differing opinions about how TVET reforms are being implemented, emphasising the discrepancies between the creation of policies and their actual implementation.

TVET systems, which seek to match skill development with labour market demands, are essential to Africa's socioeconomic transformation (Okolie & Yasin, 2021). Although high GTCI rankings indicate that an institution is prepared to develop talent, academics warn that these indices could conceal structural issues. For example, TVET is emphasised in South Africa's National Development Plan to reduce the country's 34.5% youth unemployment rate; however, criticisms continue regarding the lack of funding for infrastructure, unequal industry collaboration, and differences in program accessibility (Allais, 2020). Comparably, the Sectoral Skills Committees in Mauritius, which are praised for incorporating employer input into curriculum design, are criticised for their sluggish adoption rates and little effect on the largest segment of the workforce—the informal sector (GOK, 2021; ILO, 2022).

Different methodological emphases frequently give rise to divergent scholarly perspectives. Legal landmarks that prioritise TVET equity, like South Africa's White Paper for Post-School Education and Training, are highlighted in optimistic analyses (DHET, 2022). On the other hand, critical studies highlight systemic obstacles that devalue vocational pathways in comparison to academic education, such as funding shortages, bureaucratic inefficiencies, and social stigmas (Mayombe, 2021). This contradiction highlights a larger conflict in development discourse: praising innovative policies while calling for accountability in their execution.

Additionally, TVET's role is complicated by Africa's predominately informal economy. More than 85% of jobs are still informal, so flexible training models are required even though formal programs focus on industrial sectors (ILO, 2022). Only a few prominent GTCI nations have successfully closed this gap. For example, informal artisans' needs are not adequately met by Mauritius's formal TVET programs, which results in a skills gap in high-growth industries like renewable energy (UNESCO, 2022). These discrepancies make academics wonder if TVET metrics put formal employment outcomes ahead of overall workforce preparedness (McGrath et al., 2020). In summary, research warns against confusing policy intent with observable results, even though high GTCI rankings indicate institutional advancement. In order to provide insights into the relationship between talent competitiveness and practical reform challenges, the following analysis will examine how structural, financial, and governance factors influence TVET implementation in Mauritius, South Africa, and other African nations

Reform strategies of leading African TVET systems on GTCI

Mauritius

Small island nation Mauritius, whose population is similar to Lesotho, has a diversified economy and is realising more and more the important part vocational education plays in improving workforce skills and raising competitiveness in a world changing quickly. Dependent historically on conventional educational approaches, the nation has modernised its vocational education system through major policy changes during the past two decades. The necessity to solve skill mismatches, match educational outputs to labour market needs, and raise general student results drove these reforms. Emphasising the rationale behind the reforms, implementation strategies, funding sources, technology integration, industry cooperation, quality assurance, and the consequent effect on student

outcomes, this review investigates the evolution of vocational education policy in Mauritius.

Mauritius's vocational education system was marked before the reforms by a strict, exam-oriented structure that provided little practical experience and left graduates unprepared to meet the demands of a contemporary labour market (Ministry of Education, Tertiary Education and Scientific Research, 2017). Reform was spurred by a confluence of economic demands, advice from foreign agencies, and mounting awareness of world trends stressing skill-based training. Policymakers responded with a competency-based model that gives hands-on learning and industry need alignment top priority. International organisations like the World Bank and UNESCO-UNEVOC, which offered direction on best practices and policy design (World Bank, 2018; UNESCO-UNEVOC Institute, 2019) helped to justify this change. The public sector and businesses have become more cooperative as a result of the shift from a conventional, theory-based approach to one stressing practical skills and competencies, so producing a more flexible and responsive education system.

The objective of bridging the gap between educational outputs and labour market needs drives centrality in Mauritius's revised vocational education policy. Modernising courses, improving teacher competencies, and raising the practical relevance of training courses rank among the main policy priorities. Establishing specialised training centres and pushing public-private partnerships to assist apprenticeships and internships has been a key implementation strategy (World Bank, 2018). These programs help educational institutions to always change their courses in response to changing industry needs and technical developments. Moreover, regular curriculum reviews have become institutionalised to guarantee that programs remain relevant and that teachers can quickly incorporate new skill needs as sectors change (Ministry of Education, Tertiary Education and Scientific Research, 2017). Mauritius is positioned thanks to this agile policy framework to actively address new trends and meet the dynamic needs of the global economy.

Reallocation of resources and more financing for vocational education have been pillars of the reforms. Often working with foreign organisations, the Mauritius government has made large investments in modernising infrastructure, upgrading technological tools, and offering continuous teacher development. These funds seek to support innovation in training facilities and provide an environment fit for a competency-based approach. Transparent allocation policies and performance-based funding systems have been very helpful in guaranteeing the effective use of resources and converting investments into observable changes in training quality (International Labour Organisation [ILO], 2018). Modern facilities and digital tools have been systematically invested in to greatly improve the accessibility and quality of vocational training courses all around the island.

The reforms in Mauritius' vocational education system have defined themselves in part by their integration of digital technologies. Adoption of digital classrooms, e-learning platforms, and advanced simulation tools has transformed the delivery of vocational training, so providing more flexible and creative learning opportunities (ILO, 2018). Along with modernising the delivery of education, these technical developments have given students necessary digital literacy skills. Particularly virtual reality and simulation-based learning environments have enhanced hands-on training by letting students participate in realistic work situations prior to joining the workforce. These kinds of developments guarantee that graduates are more suited to satisfy the technological needs of modern companies.

Another important focus of the reforms has been on strengthening the ties between industry players and vocational education centres. To guarantee that courses reflect actual industry practices and that training programs are tightly matched with market needs, cooperative partnerships have been developed (UNESCO-UNEVOC Institute, 2019). Benefiting companies as well as students, these alliances have helped to arrange joint research projects, apprenticeships, and internships. Mauritius has concurrently put in place strong quality control systems comprising standardised evaluation procedures, performance monitoring, and frequent accreditation reviews. These steps guarantee responsibility, help to preserve high standards, and create a feedback loop that guides ongoing curriculum design and instruction practice improvement (Ministry of Education, Tertiary Education and Scientific Research, 2017). Industry integration together with strict quality assurance has produced a more dependable and effective vocational education system.

The effect of these changes on student results will ultimately define their degree of success. The switch to a competency-based, industry-integrated vocational education system in Mauritius has produced rather notable benefits. Many graduates battled to find appropriate work before the reforms because their acquired skills did not match those sought by companies. Post-reform data show notable increases

in graduate employability; thanks to vocational education, a workforce more suited for industry needs is now generated (World Bank, 2017). Higher job placement rates and more satisfaction among businesses and students alike have resulted from improved practical training, continuous skill development, and closer industry ties. Along with enhancing personal employment opportunities, this change has helped Mauritius become more competitive and supports general economic growth.

Ultimately, the thorough changes implemented in Mauritius's vocational education system have produced notable improvements in policy design, execution, and results. Economic pressures, international best practices, and the necessity of more alignment with labour market needs have driven a change from a conventional, exam-oriented model to a modern, competency-based one. The reforms have greatly increased the relevance and influence of vocational education by stressing clear policy priorities, efficient resource allocation, technology integration, industry cooperation, and rigorous quality assurance. The resulting gains in student performance highlight the success of these policy programs and the critical function of vocational education as pillar of sustainable economic development in Mauritius. (Ministry of Education, Tertiary Education and Scientific Research, 2017; World Bank, 2018; ILO, 2018; UNESCO-UNEVOC Institute, 2019).

Egypt

Egypt is long known as a regional centre for education in North Africa, but its focus on academic learning has sometimes eclipsed technical and vocational training. But with fast changes in socioeconomic levels, high young unemployment, and growing need for a qualified workforce, vocational education has become increasingly important part of national development strategy. Egypt has undergone changes recently meant to move from a mostly theoretical perspective to a competency-based, industry-oriented model. With an eye towards the rationales behind the changes, implementation strategies, resource allocation, integration of modern technologies, industry links, quality assurance measures, and their effects on student outcomes, this review investigates the evolution of these reforms. Combining a variety of sources—including recent scholarly journal publications—this review offers a thorough assessment of Egypt's present situation in vocational education (International Labour Organisation [ILO], 2019; UNESCO-UNEVOC Institute, 2020).

Historically, Egypt's vocational education system was distinguished by antiquated curricula, little practical experience, and a clear discrepancy between the skills taught and the demands of a fast-paced workforce. Persistent young unemployment and a fast changing economic environment among other socioeconomic pressures demanded a change towards a more flexible, skill-oriented educational model. Both internal evaluations and recommendations from international organisations, which contended that a competency-based approach would better equip graduates for modern employment environments, drove policy reform (World Bank, 2019). Recent research by academics underlines these developments. For example, Hassan and Youssef (2021) observe that changes have moved the industry from a theory-dominant perspective to one stressing pragmatic, hands-on experience. Early results indicate encouraging trends of higher employability rates and increased student participation, implying that the new model is progressively closing the gap between education and industry needs.

The reform agenda of Egypt gives curriculum modernisation, professional development for teachers, and the growth of apprenticeship and internship programs great weight. Policy priorities are meant to guarantee that vocational education stays flexible enough to meet changing needs of local and worldwide labour markets. As Abdelrahman and Soliman (2022) clarify, the reform process has revolved mostly on the building of specialised training facilities in close association with business partners. These sites act as hubs for delivering competency-based training combining academic knowledge with practical skills. Public-private partnerships aiming at adding industry knowledge to curriculum design and instructional procedures have also been part of implementation strategies. Regular curriculum reviews and the participation of advisory boards including business leaders and teachers have guaranteed that training courses are always changing to reflect present technologies and market trends. Egypt has been able to keep up with fast technological and financial changes by means of this agile and cooperative approach (UNESCO-UNEVOC Institute, 2020).

Good reform calls both strong financial support and careful use of resources. Significant funds have been directed in Egypt towards modernising vocational training centres, improving technology, and giving teachers continuous professional development. Both domestic resources and foreign aid support these projects, so underscoring a strong national will to transform the vocational education system (ILO, 2019). Clear, performance-based budgeting systems have been developed to guarantee that expenditures

result in appreciable enhancements in training standards. Improved physical infrastructure—such as rebuilt vocational schools and the purchase of contemporary tools—has improved the capacity of training facilities to provide high-quality education. These resource allocations are seen as essential for building a sustainable model able to change with changing labour market demands and ongoing technological developments.

Understanding the value of digital literacy in the current economy, Egypt's changes in vocational education have given modern technology top priority in inclusion into training courses. Dynamic, interactive learning environments are increasingly supplied by e-learning systems, digital laboratories, and simulation-based modules. These technological developments, as El-Afandy (2020) points out, enable students to be more ready for the modern workforce by helping to close the gap between theoretical instruction and practical application. Particularly for students in isolated or underprivileged areas, digital tools have not only modernised teaching strategies but also increased access to top-notch education. Virtual learning environments let students interact with course content, so developing important technical skills and increasing general digital competency. Graduates must be ready to satisfy the challenging expectations of the labour market of today by means of both technological and vocational skills, thus this dual focus on them is crucial.

Effective reform of vocational education depends on close relationships with industry. Egypt has stepped up its initiatives to create alliances with both domestic and foreign companies, so ensuring that training courses closely match actual needs. By means of these partnerships, apprenticeship and internship opportunities have been developed, so giving students useful work experience that increases their employability (World Bank, 2019). Along with industry integration, strict quality control policies have been applied to keep high standards for vocational education. Mahmoud (2023) emphasises how fundamental the reform framework is to regular accreditation, systematic performance monitoring, and standardised evaluation methods. Constant improvement in curriculum design and instructional delivery depends on feedback loops including educators, business leaders, and legislators. These steps guarantee that vocational education stays relevant, flexible, and efficient in satisfying needs of employers as well as of students.

Reform of vocational education has as its ultimate aim better student outcomes and increase employability. Before the reforms, graduates sometimes had great difficulty finding work because their qualifications did not match the requirements of contemporary companies. Graduate employability has clearly improved with the adoption of competency-based, industry-aligned courses. Recent research show that students today gain from a well-rounded education combining thorough academic knowledge with useful, hands-on training (Hassan & Youssef, 2021). Higher job placement rates, more satisfaction with training programs, and better long-term career prospects all clearly show enhanced student outcomes. Along with increasing individual confidence, the move towards practical, skill-oriented education has helped the national workforce to be more competitive generally. Consequently, vocational education is coming under more and more importance as a necessary route for sustainable development and economic empowerment in Egypt.

From a conventional, theory-based approach to a dynamic, competency-based framework stressing industry integration and practical skills, Egypt's vocational education system is undergoing a transforming change. Underlying major investments, strategic public-private partnerships, and modern technology integration, this all-encompassing reform agenda is addressing long-standing problems of skills mismatch and unemployment. Policy studies and recent scholarly research support the favourable results of these changes—that is, better workforce readiness and student outcomes. Maintaining momentum and making sure vocational education stays sensitive to changing economic and technological trends depends on ongoing government, business, and educational institution cooperation. (ILO, 2019; Abdelrahman & Soliman, 2022; El-Afandy, 2020; Mahmoud, 2023).

Mauritania

In Mauritania, vocational education had suffered under strong theory-based instruction. Mauritania, in West Africa, faces particular socioeconomic issues and fast demographic changes. Mauritania's policy makers have come to see vocational education as a vital instrument for lowering young unemployment and promoting economic growth. Historically, the nation's educational system, moulded by its colonial past, battled to match academic outputs with the fast changing needs of the workforce. Policy changes have, however, been implemented recently to change vocational education from a mostly theoretical concept to one stressing practical skills and industry relevance. The changes implemented in Mauritania seek to modernise courses, improve teaching strategies, foster public-private cooperation, better allocate resources, and hence raise student results.

Outdated curricula, few hands-on training opportunities, and poor coordination with industry needs beset Mauritania's vocational education system prior to the recent reforms. Significant skill mismatches in the labour market resulting from this disconnect left many graduates unprepared for the workforce. Recommendations from international development agencies and efforts at regional economic integration drove Mauritanian officials to rethink their vocational training systems (International Labour Organisation, 2018). The pressing need to lower young unemployment and create a workforce able of adjusting to technological developments and industrial innovations drove the reforms. Adopting a competency-based strategy post-reform, the nation gives practical, work-related skills top priority over conventional academic performance. Early evaluations point to more dynamic teaching strategies and enhancements in training relevance. Improved industry involvement and ongoing curriculum revisions have started to show results; vocational education is becoming more and more seen as a realistic route to a decent job (World Bank, 2017).

Aligning educational results with labour market needs is Mauritania's main goal with regard to its updated vocational education policy. Modernising courses, increasing teacher capacity, and growing apprenticeship programs rank among the main policy priorities. Establishing specialised training facilities that closely interact with nearby businesses has been a key implementation plan. These hubs offer opportunities for hands-on instruction, so guaranteeing that students acquire real-world experience (UNESCO-UNEVOC Institute, 2018). Public-private alliances have also been encouraged to guarantee that technical programs stay current and help to transfer knowledge. Supported by advisory boards made of business leaders, regular curriculum reviews have evolved into a regularity of the reform process. These steps help the system to quickly adapt to technological developments and shifting market dynamics, so guaranteeing that graduates have skills fit for modern industry needs.

The success of the reforms has much depended on funding and distribution of resources. Funding for technical and vocational training programs has been greatly raised by Mauritanian legislators, who have also directed investments towards advanced equipment, infrastructure modernisation, and teacher preparation programs. Nowadays, resource allocation decisions are based on open funding systems and performance-based budgeting, which guarantees that investments result in noticeable changes in training quality (International Labour Organisation, 2018). The flood of extra funds has let training facilities modernise their infrastructure and include digital tools into their curricula. These expenditures have not only increased the capacity of vocational education centres but also improved their capacity to satisfy the needs of a fast changing employment environment.

A pillar of Mauritania's vocational education reforms has been technology's integration. Understanding how important technology is to contemporary economies, legislators have given digital tools like e-learning systems and simulation software top priority when including into the training program. These resources enable students to participate in virtual scenarios simulating real-world industrial environments (UNESCO-UNEVOC Institute, 2018) so facilitating interactive learning. Particularly in remote locations with limited physical infrastructure, digital classrooms and online courses have also increased access to training. The reforms have helped to close geographical gaps by using technology, so ensuring that more students may gain from top-notch vocational education. This integration improves not only technical abilities but also digital literacy—a vital ability in the global economy of today.

Another important emphasis of the changes has been industry integration. To give students on-the-job training, cooperative alliances between local companies and foreign companies have been developed to build apprenticeship programs and internship possibilities. These alliances guarantee that graduates can enter the workforce seamlessly and that instructional materials stay relevant (World Bank, 2017). Concurrent with these initiatives are strict quality control systems. Standardised evaluation systems, continuous performance monitoring, and regular accreditation of training facilities guarantee that both teaching strategies and tools satisfy high criteria. These steps give teachers and legislators necessary feedback that helps them to keep improving the curricula and the delivery of instruction (International Labour Organisation, 2018).

The success of the reforms depends ultimately on their effect on student results. The change to a competency-based, industry-integrated vocational education system has started to show good results in Mauritania. Because their skills did not match market needs, graduates sometimes had great difficulty finding work before the reforms. Still, new statistics show that the changes have greatly improved employability. Graduates today are more suited for the expectations of contemporary businesses, and job placement rates among alumni of vocational education have clearly improved (World Bank, 2017).

Furthermore, students express more pleasure with the practical, hands-on character of their training, which not only increases confidence but also enhances long-term employment possibilities. These systematic changes in curriculum relevance and teaching strategies have helped to create a stronger labour market, so supporting the function of vocational education as a main engine of economic development.

Notwithstanding these successes, Mauritania's vocational education system still presents major issues needing constant attention. The sustainability of the present financing approach is first of importance. Although more investments have resulted in significant improvements in infrastructure and digital tools, depending too much on outside money and foreign alliances begs issues about long-term domestic funding. It is imperative that national budgets be able to maintain these gains, especially in view of fast technological developments that call for ongoing changes (International Labour Organisation, 2018). The rural-urban divide is yet another urgent problem. While rural areas lag behind, urban centres gain from improved infrastructure and simpler access to contemporary teaching tools. Dealing with these inequalities calls for focused policies and financial allocation to reach far-off areas with high-quality vocational training.

Still a major obstacle is teacher preparation. While attempts have been made to improve the competencies of vocational teachers, the fast speed of industrial and technological change calls for ongoing professional growth. Including business leaders into the training program guarantees that teachers stay current on modern practices and offers new ideas. Still, this calls for more methodically frequent training courses catered to the changing needs of the employment market (UNESCO-UNEVOC Institute, 2018). Furthermore, still needing more work is the measurement of long-term student outcomes and labour market effects. Although early assessments show better employability among graduates, thorough longitudinal studies are required to adequately capture more general socio-economic consequences including job stability, career development, and income increase over time. By means of strong, long-term monitoring and evaluation systems, strengthening quality assurance frameworks will enable legislators to better grasp the ongoing effects of the reforms and make necessary corrections (World Bank, 2017).

Looking ahead, a bright future direction is strengthening regional cooperation. Mauritania presents many issues for surrounding nations in North Africa and the Sahel region, which offers chances for cooperative projects. Regional alliances might help to share best practices, organise resource mobilisation, and create cross-border training centres. By means of standardising quality assurance procedures and curriculum development, such cooperation not only improves the calibre of vocational education but also raises the competitiveness of the regional workforce. Moreover, as sectors change with new technologies, future policies have to be flexible as well. Essential will be ongoing curriculum reviews, the inclusion of new digital tools, and flexible training courses able to rapidly meet market needs. Policymakers should take into account creating innovation funds inside vocational education establishments specifically for experimenting with new teaching strategies and technology.

All things considered, Mauritania's latest changes in vocational education have set a strong basis for a more industry-aligned and responsive system. Still, tackling issues including sustainable financing, regional disparities, ongoing teacher development, and long-term outcome tracking is absolutely vital. Mauritania can make sure that its vocational education system not only satisfies present labour market needs but also stays resilient in the face of future economic and technological changes by giving these areas top priority and supporting better regional cooperation.

Zimbabwe

Historically, Zimbabwe's highly theoretical and academic educational system left graduates unprepared for the practical demands of the workforce. Recent policy changes in response to these difficulties have directed the emphasis towards industry relevance, practical training, and skill development away from These changes seek to match educational outputs with the demands of a fast changing labour market, so enhancing the quality of technical training and graduate employability (International Labour Organisation [ILO], 2019; World Bank, 2018).

Before these changes, vocational education in Zimbabwe was characterised by antiquated curricula, inadequate practical training facilities, and little industry-based collaboration. This disconnect produced a notable mismatch between the skills taught in educational institutions and those needed in the workplace. Economic stagnation and fast technological development underlined even more the need of a system able to generate a technically qualified workforce. Policymakers thus launched a set of changes meant to move from a mostly theory-based model to one stressing practical, competency-based training (ILO, 2019). These changes have included industry-based alliances, curriculum

restructuring including practical elements, and funding for teacher training initiatives stressing contemporary pedagogical approaches. Early assessments point to increased rates of graduate employment and improved relevance of vocational training resulting from these changes. The reform process has shown that a targeted, skills-based education model is more suited to fulfil present and future labour market needs (World Bank, 2018).

The main goals of Zimbabwe's reform of its vocational education policy are to build a system flexible enough to change with technology and sensitive to labour market needs. Curriculum modernising, teacher professional development, and the growth of apprenticeship and internship programs rank among key policy priorities. Implementation plans have concentrated on building public-private partnerships to help industry expertise be transferred into the classroom and on establishing specialised technical training centres closely associated with local businesses (UNESCO-UNEVOC Institute, 2020). Institutionalised regular curriculum reviews help to guarantee that training initiatives stay current with the most recent business practices. Competency-based frameworks have also let teachers concentrate on acquiring useful skills instead of only theoretical knowledge. These approaches not only improve the quality of training but also guarantee that the system is agile enough to include newly developing trends and technologies as they come about (UNESCO-UNEVOC Institute, 2020).

Reallocation of resources to support a modernised vocational education system has been fundamental in the reform. Working with foreign partners, Zimbabwean officials have raised money to modernise infrastructure, make investments in cutting-edge teaching tools, and assist continuous teacher development programs. This fresh focus on financing seeks to establish a sustainable ecosystem for vocational education stressing both accessibility and quality. Clear, performance-based budgeting systems have been implemented to guarantee that money is allocated to projects showing appreciable training result improvement (ILO, 2019). Also focused on increasing access to training in underprivileged regions have been investments. Enhanced digital infrastructure and upgraded facilities have allowed training centres to provide widely available, successful programs. Maintaining present improvements as well as allowing the system to grow and change in response to future demands depend on the infusion of financial resources.

Modern technology is now a main player in changing Zimbabwe's vocational education. Understanding the value of digital skills for the worldwide economy, reformers have included technology tools into courses of instruction. Introduced to give students interactive, real-life experiences in controlled environments (World Bank, 2018), are digital classrooms, online learning platforms, and simulation-based training modules. These technical developments have made mixed learning—that which combines digital resources with conventional classroom instruction—easible. Extending high-quality education to far-off places, where access to physical training facilities may be restricted, depends especially on this integration. Furthermore, the integration of technology into vocational education improves not only technical competencies but also digital literacy—a vital ability in the linked world of today (UNESCO-UNEVOC Institute, 2020).

Vocational education needs to be quite closely matched to industry's needs if it is to be really successful. Zimbabwe has made notable progress towards encouraging alliances between local businesses and training facilities as well as regional companies. These partnerships have produced apprenticeship and internship schemes giving students direct access to work environments and industry practices (ILO, 2019). Strong quality assurance systems have been instituted to guarantee that these alliances result in quality training. Nowadays, the vocational education framework consists mostly in regular accreditation of training centres, systematic performance monitoring, and standardised evaluation procedures. These quality assurance initiatives not only support the preservation of high standards of education but also offer vital comments that guides continuous curriculum changes and teaching strategies (ILO, 2019).

The measure of these reforms' success ultimately comes from how they affect student results. Many vocational graduates battled to find work because of a lack of relevant skills before the new policies were put in effect. Still, post-reform data point to a notable increase in graduate employability. Today, students gain from a more practical, hands-on learning environment that better prepares them for the expectations of contemporary industry (World Bank, 2018). Not only are better job placement rates but also rising student satisfaction clearly reflects improved training results. Students say that the practical orientation of their courses has increased their confidence and given them the tools required to succeed in a competitive employment market. For many young Zimbabweans trying to raise their economic possibilities, vocational education has thus become a sensible and appealing route.

The path Zimbabwe is on to overhaul its vocational education system shows a greater awareness of the need of matching education with technological and financial reality. Policymakers have addressed long-standing problems with skills mismatches and unemployment by moving from a mostly theoretical model to a competency-based, industry-integrated approach. Important projects including curriculum modernisation, improved teacher preparation, strategic resource allocation, and technology integration have helped to produce a more responsive and efficient training system. Early signs of success, especially in terms of better student results and higher employability rates, highlight the possibility of these reforms to change the workforce of the nation and assist more general socioeconomic development. Maintaining the system's agility and responsiveness to new possibilities and challenges will depend on ongoing observation and adaptation (ILO, 2019; UNESCO-UNEVOC Institute, 2020; World Bank, 2018; UNESCO Institute for Statistics, 2020).

Ghana

Ghana's demographic dividend makes it among the youngest countries in Africa. Like many of the African education systems, the nation had given academic education top priority over technical and vocational training. This is mainly still the same. But growing youth unemployment and the necessity of economic diversification have made vocational education and training (TVET) top priority in national development plans. Supported by academic research and international agencies, legislators have lately carried significant changes to modernise the TVET system. The TVET reforms in Ghana seek to shift from a theory-dominated approach to a competency-based, industry-aligned model, to ready graduates for the workforce (International Labour Organisation, 2018; UNESCO-UNEVOC Institute, 2020).

Older courses, little practical training, and poor industry links defined Ghana's vocational education system historically. Many graduates left these TVET institutions unprepared for the rigours of a modern economy, leading to a notable skills mismatch. High youth unemployment and economic pressures demanded thorough policy changes to match vocational training to local and worldwide market needs. Early reform projects were driven by agencies like the World Bank, which stressed competency-based education and increased industry involvement, and guided by international best practices (World Bank, 2019). New studies show how well these changes work. Badu (2021) observes that the change to a competency-based training paradigm has raised the relevance of vocational courses and enhanced graduate employability. Likewise, Owusu and Boateng (2020) record developments in teaching strategies and more solid ties between businesses and educational institutions. These studies imply that the changed system is starting to close the gap between industry and education, so supporting more dynamic and market-responsive TVET programs.

Curriculum modernisation, teacher professional development, and the growth of apprenticeship and internship opportunities rank among Ghana's several main reform agendas. The government has made investments in setting specialised TVET facilities offering useful, industry-related training. Apart from providing technical education hubs, these centres act as innovation hotspots where courses are always changing in cooperation with business professionals (Owusu & Boateng, 2020). Public–private cooperation has been underlined in implementation strategies in order to use industry knowledge. Curriculum review and development now heavily rely on advisory boards including industry leaders, legislators, and educators. Adu and Mensah (2020) underline that this cooperative approach has made a more agile educational system possible, able to change with changing market conditions and technology developments. Ghana's TVET system is better able to satisfy present and future labour market needs by including real-world experience into training.

Maintaining these changes depends on strong financial support as well as deliberate use of resources. The Ghanaian government has greatly raised funding for vocational education, allocating resources towards modern equipment acquisition, upgrading of training facilities, and teacher preparation initiatives. Both domestic and foreign support for these projects reflects a strong national will to transform the TVET system (International Labour Organisation, 2018). Clear, performance-based budgeting systems have been put in place to guarantee effective use of resources and observable training result improvements. New TVET centres built in both urban and rural areas, among other infrastructure improvements, have helped to lower regional disparities and increase access to high-quality education. Adu and Mensah (2020) contend that these resource allocations are essential for building an equitable system that supports broad skills development, so helping to lower young unemployment and improve economic growth.

Digital skills are absolutely vital in the global economy of today. Understanding this, Ghana's TVET changes have given modern technologies top priority in terms of inclusion into training courses. Introduced

to provide more interactive and flexible learning environments are digital classrooms, e-learning platforms, and simulation-based training modules (Mensah, 2019). Mensah (2019) argues that including digital tools not only improves technical instruction but also raises students' general digital literacy. These technical developments let schools provide blended learning opportunities—that is, combinations of digital resources with conventional instruction. For students in underprivileged or remote areas especially, this strategy is quite helpful. Preparing graduates to succeed in a technologically driven labour market depends on both technical and digital competencies being given equal importance.

Modernising Ghana's vocational education system depends mostly on ensuring fit with industry needs. Strong alliances with local and international businesses have been tried to be created. These partnerships have produced internship and apprenticeship schemes giving students practical experience in actual workplaces (World Bank, 2019). The success of these programs depends equally on quality assurance policies. Nowadays, the reform framework consists mostly in regular accreditation of TVET institutions, systematic performance assessments, and continuous curriculum reviews. Badu (2021) underlines that these systems guarantee ongoing development and help to preserve high educational standards. Incorporating comments from industry players, students, and teachers helps the system to remain flexible and efficient in satisfying changing consumer needs.

Reform of vocational education has as its ultimate aim better employability and enhanced student outcomes. Many graduates battled to find meaningful work before the reforms because of a notable mismatch between their skills and industry needs. Job placement rates and general student satisfaction (Owusu & Boateng, 2020) have clearly improved with the shift to a competency-based, industry-aligned system. Recent studies show that graduates of the reformed TVET programs have higher degrees of technical proficiency and practical competency, so better equipped for the workforce. According to Badu (2021), modern technologies combined with real-world training have raised personal confidence and helped to produce a more flexible and competitive workforce. These better results help people as well as the larger economy since they produce a qualified workforce able to handle modern industry challenges.

Driven by the necessity to solve young unemployment and promote economic diversification, Ghana's vocational education system is changing. The nation is increasing the relevance and quality of its TVET programs by moving from a conventional, theory-based approach to a dynamic, competency-based framework. A more responsive and efficient system has resulted from major investments, strategic public–private partnerships, and the integration of contemporary digital tools. Academic studies show that these changes have resulted in better student results and increased employability rates, so proving the potential of vocational education to propel national development (Badu, 2021; Owusu & Boateng, 2020; Mensah, 2019). Building on these achievements and making sure Ghana's TVET system stays flexible in the face of fast technical and economic changes will depend on ongoing cooperation among government, educational institutions, and industry players (International Labour Organization, 2018; UNESCO-UNEVOC Institute, 2020; World Bank, 2019).

Benin

Rapid economic changes, ongoing youth unemployment, and the need of better-trained workforce drove vocational education into the forefront in Benin. Understanding the increasing demand for specific skills in contemporary economies, Benin's government has started changes to turn TVET from a theory-based framework into a competency-based system fit for sector demand.

Benin's vocational education program was historically beset by antiquated courses, inadequate practical instruction, and a gulf between output of education and labour market needs. These problems added to the high graduate unemployment and skill gap impeding economic development. Under financial constraints and foreign advice, the government started extensive reforms aiming at moving from a theory-oriented model to one stressing hands-on, competency-based learning and closer industry ties. Recent research shows how favourably these changes are. Adoption of competency-based models, according to Dossou and Agbodji (2022), has resulted in more relevant courses and raised graduate employability. Early results show that the changed system has improved students' practical skills and promoted better alignment between training programs and industry needs, so lowering the skills mismatch and so supporting economic growth.

Curriculum modernisation, teacher professional development, and the increase of practical training possibilities through apprenticeships and internships top priorities in the rebuilt TVET system in Benin. Understanding the value of cooperation between businesses and teachers, the government has set up specialised TVET centres acting as innovation centres as well as training grounds. Emphasising that these

centres combine academic knowledge with practical skills, Tchabi and Adeyemi (2021) make sure students pick up competencies directly relevant for the workplace. Strategies for implementation have also concentrated on encouraging public–private alliances. Established to support ongoing curriculum reviews and updates are advisory boards including teachers, legislators, and business leaders. This cooperative approach guarantees that TVET programs improve the general quality of training while staying current with technological and market changes. Industry involvement helps students find internship and apprenticeship chances and offers insightful analysis of developing skill requirements.

Good reform calls both large financial and physical resources. Benin has made large investments to update TVET facilities, get contemporary tools, and give teachers continuous professional development. Reflecting the nation's will to enhance its vocational training system, funding has been obtained through both domestic projects and international support (International Labour Organisation, 2017). To guarantee effective resource allocation, open, performance-based budgeting systems have been instituted. Projects involving infrastructure, such building and renovating TVET facilities in rural and urban areas, have helped to lower regional differences in access to high-quality education. Tchabi and Adeyemi (2021) contend that these expenditures are essential for creating a strong and fair TVET system supporting broad skill development and lowering of young unemployment.

An important engine of educational reform worldwide is digitalisation. Benin's TVET changes have given modern technology top priority for integration to improve teaching and learning environments. To establish interactive and flexible learning environments, digital classrooms, e-learning platforms, and simulation-based training courses have been embraced. Ahoua (2023) notes that these technical tools not only enhance education but also enable students to acquire necessary digital competencies expected of modern companies. Particularly in remote or underprivileged areas, the use of digital channels has expanded the reach of TVET programs. Blended learning models—which combine online resources with conventional classroom environments—have shown success in providing technical education in a more interesting and easily available format. This integration of technology guarantees that students are ready to negotiate the technical and digital expectations of modern companies.

Vocational education has to closely match industry needs if it is to realise its full possibilities. Benin has worked especially hard to improve relationships between TVET colleges and businesses. Through joint projects including internships, apprenticeships, and cooperative training programs, students have real-world, hands-on experience in actual businesses. These programs are essential to guarantee that graduates have current industry standards and that their skills are job ready (World Bank, 2018). Strong quality control policies have been applied to assist these alliances. Nowadays, the reform framework consists in regular accreditation of TVET centres, systematic performance monitoring, and standardised evaluation processes. These steps support high learning standards and offer comments for ongoing development. Benin's TVET system keeps sensitive to changing labour market needs and technological developments by including input from teachers, students, and industry partners.

Reform of vocational education has as its main objectives bettering student results and raising employability. Many graduates battled to find meaningful work before the reforms because their skills fell short of those needed in the labour market. Job placement rates and general student satisfaction have improved greatly since the shift to a competency-based, industry-integrated TVET model. Employers find graduates of the reformed system more appealing since they show higher degrees of technical proficiency and practical competence, according to Dossou and Agbodji (2022). Enhanced student results show up in both quantitative measures—such as higher employment rates—and qualitative comments from students who feel better ready for the workforce. Improved training programs, updated courses, and closer industry alliances have helped to create a more flexible and competitive workforce, so benefiting individuals as well as the more general socioeconomic growth of Benin.

As Benin's vocational education program moves from a conventional, theory-based model to a dynamic, competency-based framework, it is changing. Supported by significant investments, strategic public–private partnerships, and the integration of contemporary digital tools, these reforms are addressing long-standing problems of outdated curricula and skills mismatches. Policy reports and academic studies show that the changes are improving student involvement and employability. Sustained government, educational institution, and industry stakeholder cooperation will be crucial to guarantee that vocational training stays sensitive to changing economic and technological trends as Benin

keeps improving its TVET system (International Labour Organization, 2017; Tchabi & Adeyemi, 2021; Ahoua, 2023).

Kenya

The need to solve ongoing youth underemployment and chronic skill mismatches motivated recent reforms in Kenya's Technical and Vocational Education and Training (TVET) system. Low graduate employability (Kivuva & Mbugua, 2020) resulted from overly theoretical curricula that lacked connection to industry needs prior to these reforms. Policymakers in response have embraced a competency-based model stressing practical training, problem-solving, and workplace simulations. This change has helped to better match training programs with labour market needs, so enabling a more dynamic curriculum sensitive to global industry trends and technology developments (Mwangi, 2019). These changes yield little changes in job placement rates, more student involvement, and a fresh emphasis on quality assurance in TVET institutions.

Curriculum modernisation, professional development for TVET teachers, and the spread of industry-linked training approaches rank highest on the current reform agenda. The foundation of this agenda is the building of specialised training facilities working with local businesses and international companies. As important hubs for skill development, Kivuva and Mbugua (2020) contend that these facilities combine academic knowledge with practical technical competencies. Implementation plans call for the creation of multi-stakeholder advisory boards with government officials, academic professionals, and business leaders. Periodically, these boards review and update courses to match changing market needs. Adu and Mensah (2020) underline that institutionalised feedback loops have allowed a more agile and responsive educational framework, so ensuring TVET programs are always adjusted to fit modern skills needs. Overcoming the constraints of conventional pedagogies and promoting ongoing development has been much aided by this cooperative approach.

Maintaining TVET reforms depends on enough money and efficient distribution of resources. Government and donor money in Kenya has gone towards modernising physical infrastructure, acquiring cutting-edge technologies, and improving digital learning capacity. Open, performance-based budgeting has been used to make sure that financial resources clearly improve training results (Mwangi, 2019). Modern facilities and learning technologies have been investments in more effective teaching strategies and raised student satisfaction. By increasing access to quality vocational education in both urban and rural environments, strategic resource allocation has also helped to lower regional inequalities (Oduor & Mutua, 2021). Maintaining reform momentum and adjusting to fast technical developments in vocational training depend on ongoing financial support.

One pillar of Kenya's reform efforts is the inclusion of digital technologies into TVET courses. Oduor and Mutua's 2021 research show how e-learning platforms, simulation tools, and blended learning models are being routinely adopted in TVET institutions. These developments support interactive, learner-cantered pedagogies that improve both theoretical knowledge and practical skill development. Virtual labs and simulated work environments created from digital tools let students practise difficult technical tasks under controlled conditions. In today's knowledge-based economy, digital literacy is a vital ability that this strategy not only increases but also technical proficiency (Oduor & Mutua, 2021). Using information and communication technologies (ICT) in TVET has especially helped to solve infrastructure and geographic issues as well as provide high-quality vocational education to underdeveloped areas.

Aligning TVET outcomes with labour market needs requires industry integration. Institutions of education and industry players have established joint projects to give students real-time comments on curriculum relevance and safe internship and apprenticeship prospects (Adu & Mensah, 2020). These alliances help to transfer knowledge and close the distance between classroom instruction and practical application. Strong quality assurance systems have also been developed to track TVET institution performance. Standardised tests, consistent accreditation procedures, and ongoing performance monitoring help to maintain educational standards and point up areas needing work (Kivuva & Mbugua, 2020). Maintaining the effectiveness of the TVET system has been much aided by the integration of quality assurance policies with industry feedback, so ensuring graduates have the skills needed for immediate employment.

TVET reforms' success in Kenya is finally bolstered by their effect on employability and student results. Adoption of a competency-based, industry-aligned training model reportedly has greatly raised job placement rates and general student satisfaction (Mwangi, 2019). Graduates say they are more ready for the workforce and cite more chances for industry experience and practical learning. Research also show that including real-world training scenarios and

contemporary technologies has enhanced soft skills including critical thinking and problem-solving as well as technical ones (Oduor & Mutua, 2021). These results help not only with personal career development but also with more general economic growth by generating a more qualified and flexible workforce. The constant increase in graduate employability highlights the transforming power of recent TVET changes in closing the gap between education and business.

Kenya's TVET system's development shows a notable reaction to ongoing labour market challenges: it moves from a conventional, theory-heavy approach to a dynamic, competency-based framework. Research studies repeatedly show how well reform initiatives—including strategic resource allocation, digital technology integration, curriculum modernising, and strong industry partnerships—have worked. Improved quality assurance systems help to guarantee ongoing improvement of training results (Adu & Mensah, 2020; Kivuva & Mbugua, 2020; Mwangi, 2019; Oduor & Mutua, 2021). These changes taken together have clearly raised student employability and workforce readiness. Maintaining the TVET system's agility and responsiveness to continuous economic and technological changes depends on ongoing research and policy review.

Namibia

Earlier studies on Namibia's vocational education system had underlined the need of thorough policy changes to solve long-standing issues including obsolete courses and a gap between theoretical knowledge and industry needs. Early TVET systems in Namibia mostly drew on traditional pedagogical models, which proved insufficient to close ongoing skill gaps and young underemployment (Smit & Nkala, 2020; International Labour Organisation, 2018). Policymakers responded by implementing a competency-based strategy including work-related, practical skills into the course of study. Empirical data indicates that this change has progressively brought training programs' alignment with labour market needs closer together, so increasing graduate preparedness for employment (Nambala & Shikongo, 2021). These changes highlight the need of moving from a theory-centric approach to one stressing evident competencies and practical problem-solving.

The modernisation of curricula, professional development for teachers, and the inclusion of industry viewpoints define Namibia's TVET reform agenda most importantly. With multi-stakeholder advisory boards comprising government officials, academic experts, and industry leaders routinely reviewing and updating course content to ensure relevance, Kandji (2019) notes that stakeholder feedback has been vital in curriculum design. Measures meant to improve TVET teachers' pedagogical abilities complement this strategy. Professional development initiatives have been extensively carried out; studies by Nambala and Shikongo (2021) show that these steps are favourably linked with better student results. Furthermore, the development of specialised TVET centres in strategic areas has improved the link between training facilities and local businesses, so ensuring that practical learning elements stay in line with changing needs of the market.

Maintaining TVET reforms depends on steady allocation of resources. Public money and donor contributions have been directed in Namibia towards modernising TVET infrastructure. Investments in physical facilities, modern equipment, and digital learning environments have mostly targeted upgrading Miller and Dlamini (2020). Performance-based budgeting models have guaranteed open allocation of resources and connected spending to observable gains in educational results. These funding sources have increased TVET access in both urban and rural environments, so lowering regional differences in the availability of high-quality vocational training. Maintaining reform momentum and raising workforce preparedness depend on careful financial deployment.

The TVET plan of Namibia revolves mostly on digital transformation. Modern technologies incorporated into vocational education have closed the distance between conventional classroom learning and the expectations of a digital economy. Miller and Dlamini (2020) find that blended learning models, simulation tools, and e-learning platforms have transformed technical education delivery. These developments have made it possible to build interactive learning courses and virtual labs, so improving the accessibility and depth of instruction. Digital technologies have addressed infrastructure issues that formerly limited TVET reach in remote areas by enabling remote access to high-quality instructional resources. Preparing graduates to negotiate modern workplaces, where mastery of both technical skills and digital literacy is increasingly essential, depends on both of these twin foci.

Strong industry links and strict quality assurance procedures help to support Namibia's TVET reforms' success Especially helpful have been cooperative alliances between training facilities and business players. Simpson (2019) emphasises that structured internship and apprenticeship programs give students hands-on experiences reflecting the expectations of

the modern labour market. These alliances improve the practical orientation of training programs and enable real-time comments on the success of the curriculum. Namibia has concurrently put in place thorough quality assurance systems comprising standardised tests, frequent accreditation procedures, and ongoing performance monitoring. These systems guarantee that TVET programs change in response to technical developments and market trends as well as that educational standards remain high (Simpson, 2019; Smit & Nkala, 2020). Combining industry comments with quality assurance strategies has allowed a methodical approach to close educational delivery gaps.

Student results and workforce integration help to best gauge how well Namibia's TVET reforms are working. Adoption of a competency-based, industry-aligned training model has dramatically raised technical proficiency and employability, according empirical studies. Graduates of reformed TVET programs show better degrees of practical competence, problem-solving, and critical-thinking ability, according to Nambala and Shikongo (2021). Higher employment rates and better student satisfaction mirror these results. Longitudinal studies imply that the combination of digital tools and real-world training scenarios improves technical and soft skills including teamwork and adaptability, which are vital in the fast-paced labour market of today. Employers thus value TVET graduates more and more, which helps to promote more general economic growth and productivity increases (Kandji, 2019).

The continuous TVET reforms in Namibia show a deliberate attempt to solve ingrained problems with the vocational education system. Supported by strong resource allocation, digital integration, and improved industry partnerships, the move from conventional, theory-based courses to a dynamic, competency-based framework has produced encouraging results. Academic studies show that these changes are linked to better student involvement, more acquisition of technical and soft skills, and better alignment of educational outputs with labour market needs. Studies from Smit and Nkala (2020), Nambala and Shikongo (2021), Kandji (2019), Miller and Dlamini (2020), and Simpson (2019) show that Namibia's rebuilt TVET system is positioned to help with workforce readiness and sustainable economic development. Ensuring that Namibia's vocational education system stays flexible and future-oriented in an increasingly competitive global environment will depend on ongoing cooperation among legislators, educational institutions, and industry players together with consistent investment in technological and human capital.

South Africa

Aiming at matching educational results with labour market needs, South Africa's Technical and Vocational Education and Training (TVET) sector has experienced major policy changes. These changes have, nevertheless, not been without difficulties, especially with regard to institutional responsiveness and curriculum relevance. Wedekind (2024) notes that the acceptance of global vocational education and training (VET) frameworks has, in some cases, undermined local institutional capacity and highlights a discrepancy between policy aspirations and the operational reality of public TVET colleges. Terblanche and Bitzer (2019) similarly advocate a reorganisation of the TVET curriculum to better support creative responses to industry needs, implying that present curricula might not sufficiently address the skills and knowledge needed for young employment.

Emphasising on improving lecturer competencies and curriculum content, the South African government has given top priority on raising the quality and relevance of TVET programs. Emphasising the value of work-integrated learning (WIL) for TVET lecturers, Mesuwini et al. (2023) note that such events help to close the gap between theoretical knowledge and practical application, so improving the teaching efficacy. Powell and McGrath (2020) advocate for the integration of the capability approach in VET, suggesting that this framework can better match educational outcomes with student aspirations and needs, so increasing the efficacy of TVET programs. TVET reforms cannot succeed without enough money and resources, yet problems still exist. Buthelezi (2018) notes that unanticipated effects of educational changes have taxed TVET colleges' resources, so affecting the quality of the taught courses. To satisfy the changing needs of the workforce, infrastructure, instructional resources, and staff development must all be more heavily invested in. To equip students for a digital economy, TVET courses must include technology. According to Mesuwini et al. (2023), using technology improves practical skill development and helps training match industry standards. Technology's integration supports student-cantered pedagogies and industry-based cooperation, so improving TVET program practical relevance.

Success of TVET programs depends mostly on strong quality assurance systems and effective industry integration. Emphasising the need of courses closely matched with industry needs, Ndlovu (2023) notes the competencies needed by TVET graduates to be employable and successful entrepreneurs. Situating students' learning in practical vocational

environments depends on cooperation with industry, so increasing the relevance and quality of TVET programs. TVET changes have as their ultimate aim bettering student outcomes and workforce readiness. Still, obstacles remain. Majola (2024) looks at the difficulties Eastern Cape TVET graduates face and emphasises the need of more inclusive and fairer TVET methods that solve social inequality. This emphasises the need of not only providing pupils with technical abilities but also of attending to more general socioeconomic issues affecting employability.

Policy changes meant to improve the quality and relevance of vocational education place South Africa's TVET sector at a turning point. Although areas like curriculum restructuring and lecturer development have improved, there still difficulties matching educational results with labour market demand. Dealing with these issues calls for a multifarious strategy including sufficient financing, technology integration, industry cooperation, and an emphasis on social equity to guarantee that TVET graduates are adequately ready for the workforce.

Zambia

The vocational education sector in Zambia has also undergone significant changes meant to raise young participation in such programs. Enrolments at TVET colleges all around have clearly increased following these changes. Strong political will and a conducive environment for skill development help Mutati (2024) to explain this increase. The government's choice to double financing for TVET institutions highlights its dedication to meet rising enrolment and enhancing service delivery. Notwithstanding these encouraging enrolment trends, curriculum implementation and competency development still present difficulties. Chileshe (2019) investigated TVET institutions in Eastern Province of Zambia, finding that although students pick up practical skills, industry needs sometimes conflict with their acquisition. Part of this skills gap is the antiquated tools used in training facilities relative to the cutting-edge technologies applied in businesses. Furthermore, the absence of modern tools among professors prevents proper development of competency among their students. The Zambian government is working with the business sector to create courses that fit changing industry needs in order to close the skill gap. Aiming to make vocational training more appealing to young people and set higher professional standards, Mutati (2024) notes intentions to introduce TVET degree programs. This project aims to inspire young people to change their perspective and support vocational training as a good career route.

The great degree of young economic disengagement in Zambia raises serious issues there. With many not in education, employment, or training (NEET), Woldetsadik et al. (2024) find that almost 90% of Zambian youth are not utilising their economic potential. The study underlines how underfunded Zambia's system of skill development is, with only 2.2% of the government's education spending between 2015 and 2021—low by international standards. To draw private sector money, the writers support more investment in vocational skills and creative financial models. The Zambian government gives top importance on improving the quality of service delivery in TVET establishments. Training teachers to enhance results and working with the private sector to guarantee courses fit industry needs are part of efforts. These steps hope to generate graduates more suited for the needs of the workforce.

The TVET industry of Zambia has developed in terms of enrolment increase and policy changes meant to improve vocational education. Still unresolved, though, are issues including curriculum relevance, competency development, and underfunding. Dealing with these problems calls for ongoing industry stakeholder cooperation, infrastructure investment, and curriculum development that fits labour market demands and technological developments.

Conclusion

The comparative analysis reveals that prominent African nations have come together around a core set of reform strategies, particularly focussing on the implementation of competency-based curricula, the use of digital platforms, the strengthening of public-private partnerships, and performance-linked financing, all underpinned by the advancement of quality-assurance frameworks. These strategies have led to measurable improvements in graduate employability, alignment of skills with industry needs, and student engagement. Nevertheless, four persistent challenges arise across various contexts: (1) the sustainability of domestic funding models in the face of declining external support; (2) disparities in access and infrastructure between urban and rural training centres; (3) ongoing professional development requirements for instructors to keep pace with technological advancements; and (4) inadequate mechanisms to extend the benefits of formal TVET to the large informal workforce.

It is essential for those in positions of authority to create advisory groups that include multiple stakeholders to ensure continuous evaluation of the curriculum. Additionally, there should be a focus on implementing transparent funding models that are performance-oriented and linked to measurable

outcomes, as well as developing tailored outreach strategies for learners in the informal sector. Improved long-term tracking of graduate trajectories and thorough evaluation of digital learning results will be crucial for the continuous improvement of policy. By integrating these insights, TVET systems can more effectively strengthen resilient labour markets and promote inclusive growth across the continent.

Recommendations

This study indicates that substantial obstacles persist in vocational education delivery due to unresponsive policies or outcomes that fail to align with policy aims. Numerous studies demonstrate that student outcomes constitute the primary barrier across various African nations, as an increasing number of adolescents struggle to obtain job post-graduation. The study advises that in nations where policy development is hindered by strict adherence to outdated standards, policymakers should prioritise reforms aimed at eliminating all ambiguous ties to antiquated, at times colonial-era educational systems, especially in vocational education. Reforms might be concentrated on addressing the principal areas commonly identified by researchers as significantly affected.

- Revise the policy governance framework to ensure it aligns with the local environment and embodies contemporary educational governance models.
- Guarantee that educators impart programs devoid of intrinsic bias acquired during their own education, and ensure that pedagogical approaches align with contemporary vocational education instructional frameworks.
- Revise the curriculum to prevent adherence to traditional frameworks developed during the colonial period, which merely generate clerks, as frequently asserted by scholars in this review.
- This study recommends that policymakers implement regular system-wide policy updates to align with labour market developments specific to their conditions and assess all other barriers to policy reform.
- Policymakers in African nations must establish more robust relationships with global vocational education providers whose systems are grounded in local circumstances. Establish collaborations for reciprocal learning and technical support in the development of vocational education systems.

Emphasising practical application, the evaluation of curriculum must be conducted with a renewed perspective, ensuring that vocational education programs are not only constructed to conform to traditional curriculum design methodologies despite suboptimal results. Revise the curriculum that seems to be entrenched in banking methodologies, which scholars assert were not designed to cultivate highly trained technical professionals, but rather to generate simple clerks and administrators. Policymakers must ensure that instructional methods emphasise and incorporate innovative teaching styles that effectively impart practical technical skills, while eliminating purely theoretical approaches that were intended to condition colonial subjects to comply with their colonial rulers, disregarding the comprehension of technical concepts that could foster innovation and entrepreneurship.

Contributions to Knowledge

This study presents four significant contributions. This study provides a comprehensive cross-country synthesis of TVET reform strategies among Africa's leading GTCI performers, highlighting the localisation of global best practices within various governance contexts. Secondly, it enhances comprehension of the interactions among policy design (competency frameworks), resource allocation (performance-based funding), technological adoption (e-learning and simulation tools), and quality assurance (accreditation and monitoring). Third, it presents a conceptual framework of enablers and barriers—encompassing institutional, financial, and socio-cultural dimensions—that can inform future comparative studies and policy assessments. By emphasising the training needs of the informal economy, this study broadens the discussion surrounding vocational education and training, outlining avenues for more inclusive workforce development initiatives.

Study Limitations

The analysis is based largely on secondary sources, including policy documents, international reports, and peer-reviewed articles. It does not include primary fieldwork or stakeholder interviews, which might provide more profound insights into the realities of implementation. Concentrating on the leading ten GTCI nations restricts the applicability to those ranked lower or in less resourced situations, where the paths of reform might vary significantly. The lack of longitudinal outcome data limits the assessment of long-term effects on job stability, career advancement, and income growth. Future investigations should focus on mixed-methods field studies and longitudinal tracking to capture the nuanced effects of TVET reforms over time.

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