
FOREWORD

Revitalising technical and vocational education and training in Africa: Issues outstanding

George Afeti

Chair, African Union Continental TVET Expert Group

Introduction

One of the stark realities of Africa today is the crisis of youth unemployment. Every year, about 10–12 million poorly skilled young people exiting the various levels of the education system enter the labour market (AfDB & OECD, 2012), where they end up in insecure and sometimes hazardous employment with no prospect of further education or training. Even graduates of higher education institutions are not spared the frustration of seeking and not immediately finding a job. In countries such as Zambia and Ethiopia, young graduates may take up to five years after training before finding a job in the formal sector (ILO, 2013). In Ghana, it is estimated that the economy needs to create 300 000 new jobs per year to absorb the growing number of unemployed (Honorati & Johansson de Silva, 2016). In Tanzania, approximately 800 000 people enter the labour market each year (ILO, 2012), in contrast to the absorptive capacity of the public sector of only 40 000.

Young people without jobs or hope for a better future live a daily life of frustration. Such frustration, co-mingled with desperation and loss of self-esteem, is pushing many young people to seek any means of livelihood, including embarking on the perilous journey of migration across the Mediterranean Sea to Europe. Others may be entrained into a life of crime or be used as instruments of politico-religious violence or as combatants in armed conflicts. Youth unemployment therefore poses a threat to political and national stability, and social cohesion. The good news is that many African governments have now come to appreciate the critical role that technical and vocational education and training (TVET) can play in equipping young people with skills for the world of work.

Revitalisation of TVET is making only timid progress

The increasing importance that African governments now attach to empowering the youth through employment-orientated skills training is reflected in the skills development strategies that governments have developed and are implementing to revitalise their TVET systems. Countries such as Botswana, Ghana, Kenya, Malawi, Namibia, Rwanda, Tanzania and Uganda have established national TVET agencies and workforce development authorities to coordinate, regulate and generally drive skills development to support the productive sectors of their economies. Many years ago, South Africa established sector education and training authorities (SETAs) to oversee and support the development of technical competencies for the various sectors of industry.

However, in many countries, access to quality TVET is unequal and inequitable, partly because of the uneven geographical distribution of training institutions. The majority of the better-endowed TVET institutions are located in the urban centres, making it difficult for poor rural dwellers to get access to the quality and diversified skills training opportunities that their compatriots in the cities do. The use of information communications technology (ICT) and other technology-mediated interventions to increase access to TVET is still in its infancy in almost all countries. On the whole, TVET in many African countries suffers from inadequate financing, obsolete technology and weak organisational structures.

The skills development situation in post-conflict countries such as Liberia, Sierra Leone and South Sudan, although improving, is still challenging. Many years of war and conflict have left the learning and training infrastructure in these countries damaged or destroyed, resulting in poor learning outcomes and low training capacity; and this, against the backdrop of a high demand for employable skills training by the youth, including demobilised soldiers and former child combatants. In poorer countries, there is a shortage of trained TVET professionals, policy-planners and employment-sector analysts at the national and institutional levels to drive the entire skills acquisition system. This situation has reduced the ability of training providers and government ministries and agencies responsible for TVET to effectively match training to labour market demands or the needs of local entrepreneurs and small businesses. The TVET programmes themselves, especially in the formal sector, lack flexibility, relevance and responsiveness. In countries where there is no central TVET coordination agency or National Qualifications Framework (NQF), the national TVET system lacks coherence, and quality standards may vary from one training provider to the other.

Policy reforms

Against this background, reforming national TVET systems has become a major focus of the education and training agenda of many countries. Policy reforms are geared towards promoting access and participation, equity, training relevance, employability and the strengthening of system governance, management and financing. The African Union has

produced a Continental TVET Strategy to foster youth employment (African Union, 2014); this strategy provides a comprehensive framework for the design and development of national policies and strategies that support economic development and contribute to poverty reduction. The Continental TVET Strategy rightly recommends that national TVET policies should be firmly rooted in indigenous knowledge and learning systems, and that the influence of both local cultural practices and values and globalisation on TVET delivery should not be ignored.

Generally, many of the TVET reforms in Africa have concentrated on addressing the general weaknesses associated with the governance and management of the system. However, these systems-level reforms have fallen short of positioning TVET as an effective response to the triple challenges of sustainable socio-economic growth and industrialisation, youth employment and poverty alleviation. What are the factors inhibiting the transition from policy to desired outcomes? One key factor is policy mismatch.

Policy mismatch

In many respects, Africa is a continent of contrasts. African countries come in different sizes and shapes, with a great diversity of cultures and governance models, and are at different stages of socio-economic development. Consequently, policies that work in one country may not yield the same outcomes in a different politico-economic environment. It is therefore important to link TVET policy reforms to clear and realistic national economic and human resource development goals that consider national values, culture and rate of technology uptake as well as the impact of globalisation on the domestic skills development agenda.

The complexities of TVET are often not well understood by policy- and decision-makers in many African countries. Important issues such as vocational disciplines or occupational areas to prioritise in the learning process, the quality of provision, relevance and employability, financing, the transitional pathways into employment, and critical poverty-reduction strategies are only superficially addressed in national policy frameworks.

Very often, the policy objectives lack concrete details on how to achieve the stated policy goals. For example, to ensure that the skills supply meets the demands of the labour market, the familiar strategy is to link training to information on skills gaps and shortages gathered from a labour market intelligence system, without spelling out how to build the technical expertise required for undertaking such an exercise. Policy objectives are often guilty of emphasising what needs to be done without articulating how the objectives would be attained. Similarly, recommending TVET as a vehicle for getting young people into self-employment often ignores the need for governments to create an economic environment that is favourable to employment creation. Policy mismatch has the same effect on the employment climate as skills mismatch. Neither is responsive to the needs of the labour market.

Issues outstanding

Effectively revitalising TVET in Africa would demand that some key inhibiting factors within the TVET ecosphere be dealt with. Ten inhibiting factors are elaborated on below.

Moving from system reform to system improvement

After years of implementing policies to reform their national TVET regulatory and governance frameworks, countries should now shift the emphasis to system-improvement interventions. Strengthening the TVET delivery system requires appropriate training equipment and process simulators, an adequate supply of training materials, and practice by the learners. Other critical requirements include relevant textbooks and training manuals, qualified instructors with experience in enterprises, and the participation of industry practitioners in training delivery.

Assuring the employability of trainees, furthermore, begins with effective guidance and counselling of potential learners in the choice of training programmes commensurate with their aptitude, academic background, career ambitions and the current or future job openings. The notion of employability presupposes that the skills needs of the labour market should drive training provision. In this regard, increasing investment in the TVET sector to build a strong capacity to implement a system-improvement strategy is important. Systemic reform alone is insufficient.

Assessing the influence of globalisation on national skills development strategies

A result-orientated approach to revitalising TVET is to align policies and strategies to the market environment. Understanding the pathways to the employment market is the first step in designing system-improvement interventions. Although globalisation may have both positive and negative impacts on national economies, the complexities of the labour market and the influence of globalisation on domestic production systems should drive training delivery strategies. How can cheap imports of basic consumer items compete on the domestic market with similar goods manufactured by local artisans and manufacturers? Skills development for decent employment and poverty reduction cannot happen in the absence of an enabling market environment that favours the domestic production of goods and services.

Placing equal emphasis on both the social and the economic dimensions of TVET

While African countries need advanced skills to enhance productivity, transform the economy and catch up technologically with other regions of the world, the drive for economic growth should not overshadow the potential power of TVET to contribute to realising meaningful individual livelihoods for the poor and vulnerable of society.

The social dimension of TVET is just as important as the aspiration for national economic growth. As some authors have argued (McGrath & Powell, 2015:12–19), TVET should shift the focus from over-concentration on economic growth to the wellbeing of individuals. Skills

development should focus more on supporting development that is sustainable for individuals, communities and the environment, while also being concerned with eradicating poverty, inequality and injustice.

However, the social or individual wellbeing dimension of TVET cannot be dissociated from the wealth that accrues from national economic growth and industrialisation. Industrialising African economies is a necessary precondition for wealth creation and may well contribute to a skills development ecosystem that opens up employment opportunities for individuals with technical and vocational skills. Promoting social justice and eliminating economic inequalities through TVET cannot, therefore, be separated from a macroeconomic environment that creates sustainable demand for technical and vocational skills.

Several factors inhibit the drive towards industrialisation. Industry cannot grow without access to raw materials, markets for finished products, sources of capital and access to technology. Other inhibiting factors include poor transport and communications infrastructure, and limited access to reliable energy. However, the greatest drag on industrialisation is the absence of qualified and competent human capital: a technically skilled labour force is a prerequisite for sustained industrialisation. Promoting manufacturing and industrialisation requires investment in technology, modern production machinery and human capital.

Aligning training policy to national macroeconomic policies

Technical and vocational education and training by itself does not automatically result in economic growth, the provision of jobs or the eradication of poverty. Rather, TVET requires an economic policy environment that promotes the creation and growth of enterprises and stimulation of the economy. When businesses grow or expand, demands for new or additional technical and vocational skills emerge, new training opportunities arise and additional jobs are created.

Factoring flexibility and lifelong learning into TVET provision

The skills of the workforce can be upgraded continually within the context of lifelong learning (LLL) where employees are able to sharpen or upgrade their skills in tandem with changes in technology in the workplace. Also, LLL opportunities afford learners who have had limited access to training in the past, a second chance to build on their skills and competences or enable them to have their previously acquired skills certified through the mechanism of recognition of prior learning (RPL). A TVET NQF can help to promote training flexibility and coherence, LLL and RPL within the TVET system.

Integrating ICT and technology-mediated learning into TVET

Introducing ICT and e-learning methodologies into TVET provision can contribute to quality improvement, technological innovation and increased outreach and access to learning opportunities. However, technology-mediated learning will require curricula with appropriate

digital content, access to electricity and computers, Internet connectivity, changes in institutional teaching and learning culture, and adequate budgets to cover operational, maintenance and equipment replacement costs. Although many countries in Africa have developed national ICT policies and are mobilising resources for ICT infrastructure development, progress is slow. Moreover, negotiating the transition from policy to practical learning experiences will involve appreciable capital outlays and government–industry partnerships.

Revamping the agricultural and manufacturing sectors

Building skills for modernising and boosting agricultural production along the entire value chain is a policy imperative. Accounting for 60% of the world's uncultivated arable land, agricultural development has great potential for growth and employment in Africa (Beaujeu, Kolie, Sempere & Uhder, 2011). Agricultural production for food and jobs is one area where Africa has a comparative advantage in terms of the availability of land and labour, and it can therefore become competitive on a global scale. Another area where a revitalised TVET system could support economic development on the continent is in the provision of relevant skills for value-addition to primary commodities and natural resources such as minerals, timber, cocoa and other food crops for domestic consumption and export.

Revitalising the manufacturing and agro-industry sectors in Africa offers enormous possibilities for industrialisation and employment creation. In this regard, the most important ingredient for success is the availability of a highly skilled domestic technical workforce. It is therefore important for countries in Africa to implement policies and strategies that promote the learning of science, technology, engineering and mathematics (STEM) at all levels to facilitate the development of those higher-order skills that are necessary for building, modernising or revamping local manufacturing industries and adding value to primary commodities. Without the technological skills to transform primary commodities into processed products for export, African countries will continue to be short-changed.

The cocoa industry provides a striking example of this unfair economic equation. Africa produces 75% of the world's cocoa and yet it accounts for only about 5% of the almost US\$100 billion in annual sales made by the chocolate industry (Chocolate industry analysts M&M, nd). This is a painful reminder that natural resources have no natural owners: the true owners of natural resources are those with the knowledge and skills to exploit and add value to them.

Prioritising TVET research

Currently, very little academic research into pertinent TVET issues is taking place in the majority of countries in Africa. Research is needed to inform policy choices and support decision-making. In particular, there is a need for credible disaggregated economic and human development data on an individual country basis rather than lumping all of Africa together as sub-Saharan Africa (SSA), in spite of the recognisable country differences. It is important, therefore, to conduct research to identify the 'shining lights' on the continent, to interrogate the

policy choices they have made to reach the level of progress attained and to explore the possibilities for replication in other countries. One other area in which research evidence is lacking is the informal skills development sector.

Modernising the informal skills development sector

The skills needs of out-of-school youth, early school-leavers and unemployed adults are best addressed by private-sector informal and non-formal training providers. Training in the informal sector is more flexible than school-based TVET, which is characterised by rigid admission criteria that are based on academic achievement, age restrictions and foreign-language requirements. Formal-sector training providers are often not innovative in their training curricula and delivery, and are ill-equipped to respond to the peculiar skills needs of these disadvantaged categories of learner in respect of flexibility of training delivery, teaching methodology, admission requirements and language of instruction. On the other hand, the medium of instruction in the informal sector is very often the local language which illiterate or less-educated learners can better understand and are more comfortable expressing themselves in. Although traditional apprenticeship training and skills development in the informal economy are slow to incorporate new technologies into their teaching methodology, they remain the dominant mode of skills training in many countries. This reality of skills acquisition by young people in Africa calls for a more inclusive system of skilling Africa.

Acquiring skills for the future of work

The Fourth Industrial Revolution which is unfolding in the 21st century is dominated by digital skills. Digitalisation, artificial intelligence (AI) and robotics should no longer be seen as existing outside the domain of TVET. Modern manufacturing plants and production systems require the competencies of highly trained and skilled TVET graduates. The era of TVET for the less-brilliant learner has gone. Governments should therefore invest in high-level TVET skills training in apex TVET institutions such as technical universities and universities of technology.

Conclusion

Investing in TVET is in Africa's interests. Revitalising TVET in Africa can be sustained only by massively investing in training infrastructure and teacher development and implementing economic policies that address the demand side for TVET skills. Merely acknowledging the importance of TVET in national education and training policy documents and its role as a vehicle for acquiring employable skills is not enough. Governments should actively pursue system-improvement interventions, facilitate the domestic production of goods and services for local consumption and export, and promote value-addition to primary commodities. TVET plays its role as a catalyst for socio-economic development more effectively when local manufacturing enterprises and production systems become more vibrant, since this will stimulate the demand for TVET skills and enhance the employment opportunities of adequately trained TVET graduates.

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