

Technical and Vocational Education and Training in Sub-Saharan Africa: the missing middle in post-school education

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Abstract

The structure of education systems in Sub-Saharan countries is characterised by Basic Education; Technical and Vocational Education (TVET) as well as University Education. Whilst the basic education system has grown to be a large system that accommodates almost all children, the size of post-basic education options available to young people in these countries is still very small and weak. There is a social crisis of large numbers of young people who are not in education, employment and work in the context of skills shortages in the labour market. There are, in other words, both supply and demand issues to which the present form of post-school is unable to respond adequately. There is a challenge of the 'missing middle' in the Sub-Saharan education and training systems and young people who simply disappear to thin air after leaving school.

Besides being small, the TVET sector in most Sub-Saharan countries is characterised by a significant lack of practical relevance and responsiveness to labour market needs, insufficient infrastructure and equipment and extremely low throughputs. A major challenge is posed by the quality in teaching. With lecturer training mainly taking place at universities, only a few lecturers combine pedagogical competencies with technical qualifications and industry experience.

In this paper a presentation of the state of technical and Vocational Education in Sub-Sahara will be made, pondering on the capacity of these systems, using a few countries as examples. Secondly, some discussions on the roles different institutions like Universities, Industry and TVET colleges should play in the development of capacity for TVET lecturers, will be made. Lastly, a point will be made on social justice and the denial of TVET opportunities.

Introduction

The Global Monitoring Report (2015) indicates that Sub-Saharan countries have made significant progress in getting the majority of their children in and through primary schooling and some even universalising primary education. Lifting the bottom of education has been good for these countries, even though this has largely happened through the assistance of donor funding in most countries. In countries where universal primary education has not been reached, this report shows how multipronged poverty attributes, which are mutually reinforcing, have been the major force in making it difficult to reach universal primary education provision. Yet, all countries have made significant improvements in the last decade. According to this report, most Sub-Saharan countries are still struggling with successful transitions from primary to secondary schools, and completion of secondary schooling. According to the UNESCO report (2015) it is after 8 to 10 years of education that many children in Sub-Saharan countries drop out of school. However, there are some notable improvements in secondary school completion rates in many countries already and yet transition rates to postsecondary education and work is still very limited in most. We do not know enough about the size of young people who drop out of the school system and simply disappear in societies of many countries.

It is well-known that Sub-Saharan Africa (SSA) is the poorest and most under-developed region in the world. Table 1 provides a classification of SSA countries in terms of their Human Development Index (HDI). The HDI has been developed by the United Nations Development Programme (UNDP, 2014) and it attempts to provide an indication of the development status of countries by combining an economic indicator (GDP or income per capita) with two social indicators (education – mean years of schooling- and health – life expectancy). As Table 1 shows there are very few SSA countries in the ‘high’ and ‘medium’ human development categories. Of the 52 countries shown in Table 1, thirty-five are in the low HD category.

Tab. 1 Categories of Human Development by Country, 2014

High human development (above 0.7)	Medium human development (between 0.55 and 0.7)	Low Human Development (below 0.55)
Algeria	Botswana, Cabo Verde	Angola, Benin, Burkina Faso
Libya	Congo, Egypt	Burundi, Cameroon, Chad
Mauritius	Equatorial Guinea, Gabon	Central African Republic
Seychelles	Ghana, Morocco	Comoros, DRC, Cote d'Ivoire
Tunisia	Namibia, South Africa	Djibouti, Eritrea, Ethiopia
	Sao Tome and Principe	Gambia, Guinea, Kenya
	Zambia	Guinea-Bissau, Lesotho
		Liberia, Madagascar
		Malawi, Mali
		Mauritania, Mozambique
		Niger, Nigeria, Rwanda
		Senegal, Sierra Leone, Sudan
		Swaziland, Tanzania, Togo
		Uganda, Zimbabwe

Source: UNDP, 2014. Norway is listed as the country with the highest HDI followed by a number of European and North American countries, and Australia.

One of the major factors inhibiting economic and social development in SSA is the underdevelopment of the education sector in terms of, inter alia, access, quality and equity. The weakest sub-system continues to be the middle sector of the system in most SSA countries. Many children stay in school until they are old because of lack of alternative education opportunities. As school education becomes adult education in lower income countries, in rich nations post-school education has become mainstream and Technical and Vocational Education and Training (TVET) has found a meaningful place in the middle section of many education and training systems in these countries. In fact, Grollmann & Rauner (2007) are of the opinion that in most high-income countries TVET has become a bridge between the working world and the education system and provides a decisive transition to the employment system for youth. However, the TVET sector is unbelievable small in low – income countries.

In this paper I will start by discussing some of the factors that have contributed to the weakness and smallness of the TVET sector in SSA countries. Many of these factors are located in the political economy discourse. Secondly I will look at the state of the TVET institutions themselves and exploring how these could be strengthened in order to play a meaningful role in strengthening the education systems of these countries as well as developing a responsive labour market. Lastly I will argue on why neglecting this middle system should be a social justice concern.

Why has TVET remained small and weak in many developing countries?

There are many reasons that can explain why TVET remains small and weak in many SSA countries, but in this paper the following will be prioritised as they are seen as being the most important:

- a) The political economy of these countries and the financing of education
- b) Systemic reforms in TVET in the last two decades

The political economy and financing of education in SSA

In absolute number terms, it is evident that enrolments in TVET are growing much more rapidly than the financing capabilities of Sub Saharan African governments. It is also evident that public funding across virtually all countries in the region will not be sufficient to meet growing demand (World Bank, 2010). The problems and needs of TVET in Sub-Saharan Africa, then, cannot be comprehended or ameliorated (whether by governments or institutions) without addressing the critical and worsening financial austerity.

According to the World Bank (2010:1–2), Africa has maintained its public investment in post-school education (between 1995 and 2010, allocating approximately 0.78 per cent of its gross domestic product (GDP), and around 20 per cent of its current public expenditure on education to post-school education. However, during this period, the number of students increased from 2.7 million in 1991 to 9.3 million in 2006. Enrolments during this period grew at an average annual rate of 16 % while public resources allocated to current expenditure grew at 6 % per annum on average. The World Bank (2010:22) also shows that “the situation is even more dire in the poorest countries, which allocate approximately 0.63 % of their GDP to Higher Education, and where from 1991 to 2006, the number of students quadrupled, while available public resources in general only increased by at most 75 per cent.”

The decline in public expenditure per student is having an adverse impact on the quality of both teaching and learning and of research and scholarship. In fact, the World Bank shows that Africa is the only region in the world that has experienced a decrease in the volume of current public expenditure per student (30 % between 1995 and 2010). The austerity is not simply a case of pervasive underinvestment by governments, although a case can be made that the value of tertiary education for sustainable economic growth and broader political, social and civic health has not been fully recognized by all African governments. But the pervasive austerity of tertiary education in the region is more a complex function of underlying poverty, uneven economic growth, surging enrolments, politically and socially compelling competition from other sectors for the scarce public revenues, and too frequently unstable governments.

Under these difficult conditions, the funding of TVET in many countries is undertaken through a cost-sharing model. The costs are shared mainly between govern-

ment – through recurrent and development appropriations – and parents or trainees through payment of tuition fees. Government covers mainly salary cost of established staff, capital development and equipment, while parents or trainees pay training fees and also cover accommodation costs (Ngerechi 2003). The state of funding of TVET in many countries is characterised by swings and fluctuations from year to year, perhaps because of the absence of an allocation formula. Secondly, considering the consistent growth in student numbers it can be argued that state funding of TVET has not matched this growth. The unpredictability in state allocations does not augur well for the institutions' financial stability and makes planning difficult.

With regard to fees paid by trainees, individual institutions determine these fees and as such vary from institution to institution. A negative consequence of cost-sharing is that the fees charged is unaffordable for students from poor families, which has in turn led to poor access and retention. To address the challenges related to training fees, some governments have established a TVET bursary scheme. Its main objective is to increase access, equity and retention, targeting trainees from poor households, orphans, trainees from marginalized communities and female students taking engineering courses. There are some countries that have started to implement a bursary or financial aid scheme for poor students, but these loans and bursaries are only available to students in public institutions.

Training funds or levies are also an important source of funding for TVET. These levies constitute a tax levied on company payrolls. The skills levy is a growing trend in many countries and seen as an important component of funding TVET. In return colleges are required to provide skills development training in line with the requirements of the private and public economic sectors. TVET colleges are also encouraged to generate third stream income. Ngerechi (2003) reports that some institutions have generated income through integrating training with production where the institution is able to recover some of the training costs through sales of students' projects.

From a UNESCO (2013) study, on TVET in the SADC region, we learn interesting patterns. What is striking from the national data is the huge range of public expenditure commitments to TVET. As a percentage of educational budgets, TVET expenditure across the SADC region ranges from 0.6% to 13.6%. Nonetheless, it may be argued that there is too little public expenditure on TVET in some countries, particularly where there has been little tradition of private sector contribution.

In some SADC countries, levy-grant mechanisms have been introduced to raise finance from employers. These too vary considerably in scope: from 0.5% to 5% of payroll, generating income ranging from less than USD 10 million to more than USD 1 billion per annum. There are concerns at both ends of this spectrum regarding how levies actually translate into training. In some cases, there are worries that too many employers treat levies as taxes and do not change their attitudes towards training; that levies are too small to support sustainable training agencies in poorer countries; and that small, micro and informal enterprises often

sit outside the system. Regrettably, there is too little robust evidence regarding the performance of levy-grant systems in the SADC region. It seems likely that there is much more private, community and employer investment in TVET in the region than can currently be captured by the data. A better understanding of the patterns of such investment might assist policymakers in learning what is publicly valued within the training system and allow them to better target resources.

Systemic reforms in TVET in the last two decades

Although TVET systems still remain weak in many SSA, countries have realised the need or systemic reform and are influenced by the packages that have become the international orthodoxy since early 1990s. Many have gone to implement these policies although progress still remains uneven. A study conducted in Southern African Development Countries (SADC) by UNESCO(2013) shows the following predominant features of these reforms:

- **Qualifications frameworks**

Almost all the countries of the region have at least begun developing a national qualifications framework (NQF) and there is also commitment to developing a regional framework. Nonetheless, it is clear from the evidence across the region, where NQFs range from 20 years old to still being considered, that NQF reform is a complex and long-term policy process and needs to be understood as such. It is also apparent that there is little clear evidence yet on the impact of NQFs in the region. There is no consensus regarding the sequencing of NQF reform. It remains unclear whether it is better to get a vocational framework working well before contemplating the greater political challenges of including schools and universities, or whether a comprehensive model should be attempted from the outset.

Although several reports make reference to ambitions for national frameworks to articulate with international qualifications, there is often silence on the issue of implementing the regional qualifications framework and it appears that most countries, at least implicitly, feel that they have more than enough to do in getting their national models working without concerning themselves with the regional dimension. Thus, whilst there is a case for a regional framework as a tool for maximising labour mobility in the region, it appears that regional harmonisation will concentrate for the foreseeable future on promoting dialogue across the region regarding what each country is intending, rather than seeking to be a vehicle for strong convergence of national approaches.

- **Quality assurance**

Here too, there is a strong sense of commitment across the SADC region. Governments seem well aware that challenges of quality remain significant. QA systems and the distribution of quality assurance responsibilities differ. In some systems, a single quality assurance agency is responsible for a wide

range of quality assurance practices, while in other systems responsibility is distributed across several agencies, some of which are more limited in their role. Different agencies also focus on different quality assurance practices, such as exit assessment and certification; programme approval and provider quality improvement; or provider accreditation and assessment moderation. Furthermore, different agencies may perform similar quality assurance tasks but may do so in different parts of the TVET sector and/or in different kinds of provider agencies.

Even where QA systems are stronger, there is a wide range of approaches and a lack of robust evidence on their effectiveness. Some countries have sought to take a developmental approach to quality assurance, where the QA system pays considerable attention to capacity building of the providers that are expected to be on the front line of quality delivery. This appears to be a fruitful approach for others to explore.

- **Policy coherence**

Part of the challenge of managing TVET is that it is inherently a cross-sectoral issue rather than falling easily under one governmental department. It is not surprising, therefore, that countries commonly struggle with TVET policy coherence. In response, a number of countries have reorganized areas of responsibility for TVET between ministries, have set up new inter-ministerial coordination structures or have linked TVET policy coherence to wider governance reforms by establishing national human resource development structures that include wider stakeholders. Equally, NQFs have been seen by many as a major tool for, or even a guarantor of, TVET policy coherence.

Regrettably, though at present there may be evidence of why reforms have been initiated and what they are intended to do, there is a lack of any significant data on how any of these attempts at policy coherence have worked and whether they provide any lessons for other countries. Nonetheless, it seems likely that policy incoherence may be best overcome when there is a clear sense of a national vision for TVET and strong leadership of the policy coherence process.

- **National governance reform**

Most countries record progress in this area. For example in some countries, TVET has moved from Basic Education to Higher Education. Training that used to be spread over Education and Labour Departments has now been relocated into one Department. However, it is more typical that reforms are under way rather than that they are fully realised. As was noted above, a number of countries had introduced new structures that encouraged both cross-governmental working and a stakeholder-based approach. Such ways of working are relatively new and the extent of the challenge both culturally and technically should not be underestimated.

Whilst it is accepted that stakeholders should be involved in overall system governance, there is also a strong sense – particularly in the more developed

countries in the region – that the state has a legitimate and powerful role to play in national development and should continue to take an active and leading position in the development of TVET.

- **Employer involvement**

The nature of TVET means that employers must be involved in significant ways. TVET reforms across the SADC region are driven by a strong concern to ensure training is responsive to, and relevant for, labour market and industry needs. Forging closer links to industry is advocated at both national and provider institutional levels, and across a wide range of activities from policy development to implementation; and from setting national standards based on occupational profiles to work placements as part of a training programme. However, whilst some countries report significant and formalised employer involvement in the TVET system, others can demonstrate little in this regard. Moreover, the evidence suggests that employers are typically more engaged at the national level than at the local level. As with other areas, there is a paucity of good evidence regarding what has worked and why.

- **Public provider governance reform**

Whilst there has been noticeable progress in national governance reforms, changes in how public TVET providers are governed and managed are less widespread. In some cases, new governing councils have been established and more power has been given to these and/or institutional managers to make operational and even strategic decisions regarding TVET provision. In some cases, stronger QA systems and more clarity regarding key performance indicators have allowed institutions to be more accountable. However, as with such innovations internationally, it appears that there have been some problems in the early implementation of such reforms and some concern from officials that TVET providers are not using their new powers wisely.

It appears that serious governance reform at the public provider level is something that comes later in the sequencing of reforms. This perhaps reflects the relative ease with which the state can attempt national-level reform and the relative lack of reach it has even in small countries in ensuring more local reforms. Nonetheless, provider level governance reforms do appear to be an essential element of any genuine and sustainable TVET quality improvement as it is at this level that the actual teaching and learning must take place. In particular, it may be that such governance reforms open up possibilities for public TVET providers to develop a collective voice that may also feed powerfully into national governance reforms.

- **Including private sector providers**

Some countries in the region have revolutionised their attitude to private training providers and have moved from a position of hostility to genuine attempts to integrate them into a single national TVET system. There may be real benefits in other countries seeking to learn from such experiences. How-

ever, in general it appears that there is still too much official ignorance of and disinterest in private providers.

In some countries, the focus is more explicitly on what is termed non-formal provision. This is understood as being part of private provision, reflecting challenges of definitions, as some elements of non-formal provision have been incorporated over time into public systems.

Whilst governance, quality assurance and qualifications frameworks reforms should all assist in better thinking across the range of TVET provision types, it appears that this is not sufficient and that there is a need for a better understanding of all types of provision and how best the state should interact with them.

- **Decentralisation**

There is a long-standing international orthodoxy that decentralisation of public provision is good. However, in some of the small states of the region the TVET system may be too small for decentralisation to have much meaning. In some of the more developed TVET systems in the region, a complex approach to decentralisation appears to be emerging in which local autonomy and greater responsiveness to local economic development opportunities and challenges should be balanced with the development of stronger national structures of curriculum development and quality assurance.

To **sum up**, the conditions in the political economies of many SSA countries do not allow for an expansive TVET system yet. Funding arrangements also reflect an extremely constrained situation to allow TVET to grow in many countries. However, there is a flurry of reform activities that have been noted in many TVET countries and many of these have been copied from international practices. These reforms do not seem to be making a significant impact in the expansion of TVET systems. As indicated before, TVET systems are not only small, but also weak. In the section below, we will interrogate the issue of weakness in this system.

A strong teaching core at the centre of a strong TVET system

The size of the TVET system does not necessarily mean that it is a strong one. But small size systems tend to be weak. They are weak because there is low level effort in their strategic direction as well as the funding investments. They are weak because the institutional capacity is weak. When they are weak, they tend to have a weak teaching core at the centre. Graduates of such programmes are often seen as being irrelevant or distant from what the ‘employers’ want. Students and their parents then perceive the quality of these institutions as being weak, not fulfilling their promise and they therefore vote with their feet and walk away as they see them as poverty traps (Van der Berg, 2011). The reforms cited above have not made a significant impact in strengthening the TVET system in low-income countries.

Demand-oriented training does not only mean matching training offers quantitatively with demand, it means especially qualitatively matching of training offers to industry demand according to current occupational standards and/or curricula, demand-oriented training also depends on the quality of teaching-learning process strongly influenced by the quality of teaching staff and depends on the possibility of students to gain and/or practice required skills in a real or simulated work environment. However, existing teaching systems generally tend to provide similar pre-service training or the preparation of TVET teachers as received by their counterparts across the wider field of teaching (UNESCO, 2006, UNESCO, 2012, UNESCO, 2013 (b)). Moreover, many TVET teachers enter the classroom without the benefit of an industrial background, and having often lacked the opportunity to experience the world of work.

Largely, the professionalisation of lecturers is made up of initial training (UNESCO, 2013 (b)) and takes place at universities (City & Guilds, 2012). Yet, everyone agrees that this model is not adequate. If the students to be taught need to learn about the science behind their chosen occupations, how to use the tools of the trade, experience how work processes are strung together in a real work environment and also be able to solve problems connected with the practices in their trade; these cannot be learned only at one place. This almost implies a network of institutions to provide for certain expertise in the development of competent lecturers.

A model of training teachers and lecturers in a network of institutions seems to be gaining favour at the moment. In realising that it is not only just one thing that TVET educators need, this emerging model tries to network a number of institutions for the production of TVET educator competences. For example the universities are brought in to teach the theory where appropriate, but more importantly to model the research approaches needed to map out the work processes. TVET colleges are brought in to teach the practical or functional aspects of TVET, e.g. use of tools, practice in fixing or making products. In workplace learning, students not only watch how the work is done, but learn to solve problems using TVET knowledge. This is the model that was being piloted in the Vet-Net project which involved four countries: Ethiopia, Germany, Mozambique and South Africa. In this project, it was recognised that the best TVET lecturers are the ones that have the capacity to teach their students skills to gather information, planning, executing tasks, problem solving and evaluation in performing their work related tasks than just teaching them how to perform TVET tasks. This approach needs a network of institutions and cannot be fulfilled in only one institutions. However, as convinced as we are about the merit of this approach to producing TVET lecturers, it is still a far cry from how TVET lecturers are produced in weak systems.

Social Justice and TVET

There is generally a wide acknowledgement that education for the young is not enough for any nation to meet adequately the socio-economic challenges in the

world. Specifically, all nations at the turn of the twenty first century are challenged by the notion of promoting economic prosperity and egalitarian societies. This challenge has become more and more pronounced since the collapse of the Cold war, blurring the boundaries and needs between the high and low income states (Sall, 2003). In other words, the need for continuing education seems to be growing in both high and low income countries as the worlds of political and economic systems continue to be thrown into doubt by a fast internationalizing world. It can be expected though that those countries experiencing most changes will also experience a greater need to step up their provision for everyone in order to prepare their citizen to deal effectively with a changing world.

Many SSA countries have a long history of ‘insiders’ and ‘outsiders’ throughout the different historical periods. A large underclass of unemployed and precariously employed, together with the dislocation of the transitions from apartheid to democracy – is generating fierce struggles over inclusion and exclusion both within the elite, between the elites and subalterns, and within the subaltern classes themselves. These struggles are in part marked by contestation over the meaning and content of citizenship. While the processes of class formation are producing what Hanson (2008) calls ‘differentiated citizenship’ – which distributes treatment, rights and privileges differentially among formally equal citizens according to differences of education, property, race, gender and occupations – subaltern groups respond by mobilising an ‘insurgent, citizenship’ around claims that ‘de-stabilise the differentiated’ (Kirsten & Von Holdt, 2011).

Bourdieu (1984) explains the way social divisions are reproduced and how ‘insiders’ and ‘outsiders’ are constituted. For example, in his classic work, *Distinction*, Bourdieu argues that class structure is reproduced through the accumulation of cultural capital, which can provide access to high-status occupations and social circles. According to him, a class society is reproduced because upper class students are more likely to have the cultural capital favoured by the education system (itself an agent of upper class). Central to this argument is the assumption that what constitutes cultural capital is agreed upon by all segments of society, or else there would be alternate markets in which those lacking legitimate cultural capital could succeed. Governments provide the primary base for elite formation, through the dispensation of skills development and jobs and tenders. Through the distribution of treatment, rights and privileges differentially among formally equal citizens there is an emergence of a ‘differentiated citizenship’ in the townships, rural areas and informal settlements. This differentiation has produced ‘social distances’, identified by Bourdieu in communities that had a history of sameness. For the citizens who have been waiting for their constitutional rights to be fulfilled in the form of housing, jobs, electricity, water, education etc., in the midst of corruption, nepotism and seemingly growing affluence for a few, it all boils down to justice being denied. Young people feel this exclusion more than any other groups as they are denied the means to transit from school to work.

If TVET has been used to exclude, now skills are being used by youth as a demand to include. Booyens and Crause (2014) describe these youth as living an existence

of “bleak monotony and pervasive sense of helplessness” and that such individual social exclusion compounds into national crises. It begins with an appalling schooling, which leads to a large number of drop-outs at the senior secondary phase and finally helplessness on street corners. This is inevitably continued into a cycle of substance abuse and teenage pregnancy. The adage “NEETs” (Not in Employment, Education or Training) sticks fast and the possibilities of breaking the cycle appear to be ever fewer. TVET will not solve economic problems of a country, but it will provide youth and workers a currency to bargain with employers as well as means to earn livelihoods.

The benefits of providing education at higher levels and to all citizens are numerous. Besides the objective of developing mental and vocational capacities of individuals, a highly educated society also has many other benefits. Research has, for example, shown that educated societies are generally healthier and more tolerant. An educated society has more capacity for reasoned thought, and the nurturing of culture and scholarship. In this vein Kennedy (1997) sees education as strengthening the ties which bind people, taking the fear out of difference and encouraging tolerance. In addition, it helps people to see what makes the world tick and the ways in which they, individually and together, can make a difference. It is the likeliest means of creating a modern, well-skilled workforce, reducing levels of crime, and creating participating citizens.

These are social justice imperatives that drive the agenda for providing TVET to most citizens. It means that the greater the proportion of the population that has completed secondary education and has acquired some skill to bargain with at the labour market, the better opportunity will be distributed in the population in general. Concentrating all energies and resources in the trickling effects of a growing primary education system, does not seem to be getting us to a point where educational opportunities are being distributed fairly in our society. Also, putting most of our resources in the university system still means the by-passing of millions of citizens. In order to equalise the opportunities given through educational access, much more effort must be put into the promotion of a completed senior secondary schooling and skilling citizens and access to Higher Education. This is the missing middle in our education and training system. The OECD (2014) report also states that in most high-income countries the majority of working people have acquired a post-secondary qualification, which might be one or two-year qualification after the completion of high school. Equality of opportunity is about levelling the playing field for everyone during key stages of life. A shift in the debate towards equality of opportunity in TVET promises to be a better guide for public policy and give similar chances to all citizens. TVET must be seen to be a public good for all.

Conclusion

In this paper, I have argued that the TVET systems in SSA are small as compared to their counterpart high income countries. I have argued that part of the expla-

nation of this smallness of these systems can be found in the political economies of these countries where the funding patterns have their origins in the political histories of such countries. I have also argued that despite the renewed commitment to expand the TVET systems in these countries, the funding patterns often do not correspond to this commitment. I have also argued that the TVET systems in these countries are not only small but weak. The weakness of the TVET systems stem from many factors but at the centre is a weak educator core. The weak educator core is a result of how educators are prepared to be professionals in order for them to build strong institutions. The resultant of all these problems is that the TVET system is not playing its meaningful role in bridging the transitions between schooling and work in most SSA countries. This I define it as a social justice concern as many young people have been denied the currency to bargain with employers as well as means to earn livelihoods.

The world of our young people is also one of very high youth unemployment and continuing economic change. It is a world in which employers value the skills learned in employment and the workplace, as well as those acquired in classrooms; and in which a substantial number of economically important and well-paid jobs, such as doctor, chef, or aircraft maintenance engineer, require skills acquired through demanding and vocationally specific study and training. Many of today's teenagers, like those of preceding generations, do not want to remain in academic programmes; they want to be in work, treated as (and earning like) adults, even though they may well return to study later. And a sub-group, because of personal circumstances, struggles to cope or engage with school or training of any sort.

We need to do far more, far more actively, to help young people to enter the labour market and obtain genuine employment experience. This will be the hardest task of all. Whereas the school-leavers of the 1960s and 1970s entered a labour market which was happy to offer young people a job, today's job market is very different. Some of this is beyond the power of any education policy to alter. It is a direct result of the ever-larger numbers who stay in fulltime programmes to 18, or 21, and of labour market regulations and policies which are beyond an education department's remit.

But there are things we can do, and they offer enormous benefits to young people in a world which values and rewards the skills learned in 'real' employment. We can prioritise and develop not only the growth of full apprenticeships, but also other forms of supported and subsidised workplace experience or employment. Increasing genuine employer involvement in the TVET system should also have important positive effects.

Would implementing this review end disaffection and under-achievement, raise the economic growth rate dramatically, abolish skill shortages, and ensure that every single vocational qualification had a positive labour market return? No, of course not. But raising the quality of provision, increasing the time spent teaching and thinking about students, implementing best approaches to teacher or lecturer

development, and reducing the money and time spent on pointless bureaucracy, increasing young people's skills in critically important areas, will make a real difference to young people's ability to obtain employment. All of which are, surely, well worth the attempt.

Lastly, going back to the Sustainable Development Goals, we started with, countries are not going to make significant progress in achieving these if they do not pay close attention to how they develop their people and at the centre of this is TVET. TVET is good for individuals and is good for countries to eliminate the problems of poverty, unemployment and poverty. Like all low income countries, SSA countries tend to have more in-country inequalities than high-income countries. We have challenges in health, environment, industry innovation, infrastructure, and more, and TVET can be a great contributor in solving these. The plus side is the age dividend in SSA which can be exploited to generate enormous economic growth. Therefore, good education is the best lever we have to give every young person a chance in life and this includes TVET. As long as youth feel excluded, we are in trouble. We will also not meet the SDGs without an expanded and strong TVET that can reach everyone who wants and needs it.

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Cross-country comparison of TVET systems, practices and policies, and employability of youth in Sub-Saharan Africa¹

MOSES OKETCH

Abstract

In recent years, organisations such as the African Development Bank (AfDB), and several African governments have conceded that TVET may have a positive impact on harnessing the youth dividend. There has been some progress in some countries, but there is still insufficient understanding of the place of TVET and youth skills development. The criticisms of TVET in the past, and attitudes toward it, coupled with a period of neglect by governments and donors have all resulted in insufficient understanding of the positive effects TVET can have on the youth and on economic development compared to other regions of the world that have had clearly developed agenda for youth skills development through further colleges, community colleges, or apprenticeships.

Nevertheless, there are signs of renewed interest and possible progress, and some countries have started to put in place innovative policies to strengthen Technical and Vocational Education and Training (TVET) systems. But this progress is limited and hasn't been well researched and understood in comparison with other regions of the world. This is partly due to the past attitudes toward TVET, but may also result from limited understanding of the present positive role that TVET can play to harness youth dividend in the region. This paper aims to add to better and more research evidence on the role of TVET in youth skills development and employment in Africa using key economic and education highlights and the cases of Kenya, Ghana and Botswana by examining the policies and practices that characterize

1 This paper partly draws on Oketch, Moses (2014): Education policy, vocational training, and the youth in Sub-Saharan Africa, WIDER Working Paper, No. 2014/069. Contribution by Golo Henseke, particularly on the key highlights, is appreciated and acknowledged.

the TVET landscape across these Sub-Saharan African countries from a political economy approach.

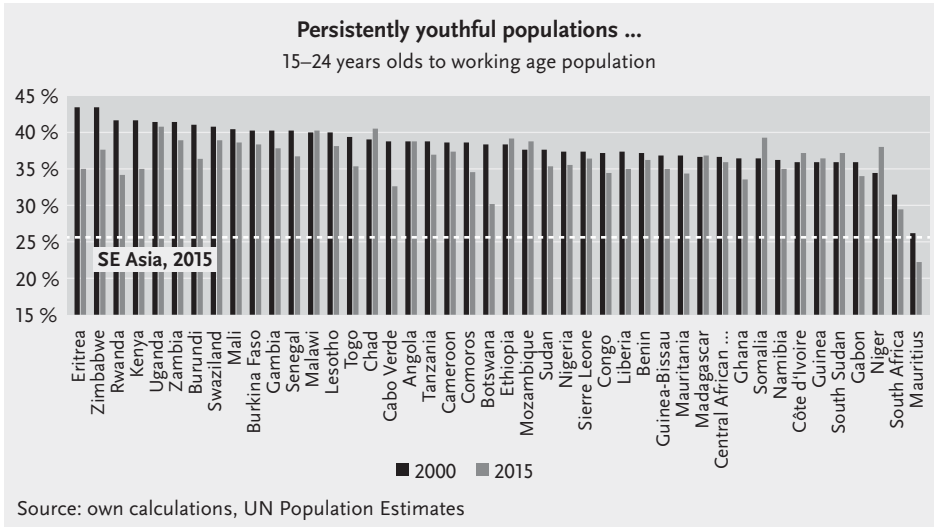
Introduction

Youth bulge and youth unemployment in Sub-Saharan Africa (SSA) has prompted a fresh consideration of the role of TVET in school- to- work transition. Eleven million youth are expected to enter the labour force each year for the next decade, 80 per cent of employment is in low quality informal sector, and whereas the formal wage employment is growing fast and will eventually employ more, seizing opportunity and scaling up informal sector to offer quality jobs is essential and urgent (Filmer and Fox, 2014). Previously TVET had fallen out of favour, especially within the international education investment discourse, and had been viewed especially by organisations such as the World Bank as expensive and inefficient public education investment, that had better be shifted to those demanding it and to the private sector providers (Bennell, 1998; Johanson and Adams, 2004). Now it is understood that it can make a necessary contribution to realising youth dividend in Sub-Saharan Africa, and in concert with other macro-economic factors, has a role to play in efforts to address youth unemployment and boost national economic productivity (AfDB, 2015).

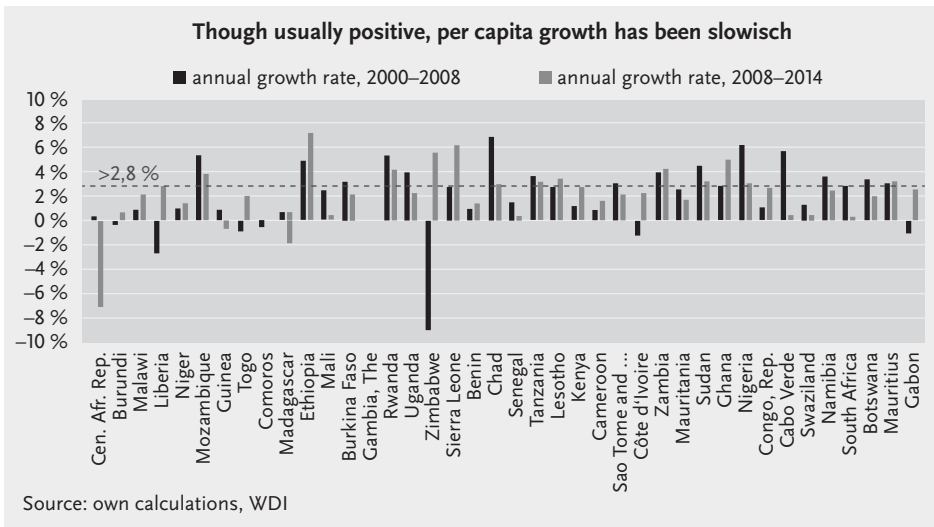
AfDB has particularly been at the forefront in promoting TVET in recent years, the complete opposite of what its close partner but totally independent organisation the World Bank did during the 1980s when priority completely shifted from TVET to basic education. AfDB appears to highlight several roles for TVET under its strategic objectives for advancing youth dividend in the region. These include making the case for TVET as the means for developing skills that lead to jobs; and a direct financial support through loans for strengthening post-secondary TVET provision in areas of skills deficit in engineering and mining.

Against this background, this paper examines the policies and practices that have characterized the TVET landscape across three Sub-Saharan African countries of Ghana, Kenya and Botswana from a political economy perspective and comments on how TVET can be applied to remove what Hansen has described as restrained formal economic options for the youth in Africa (Hansen, 2015).

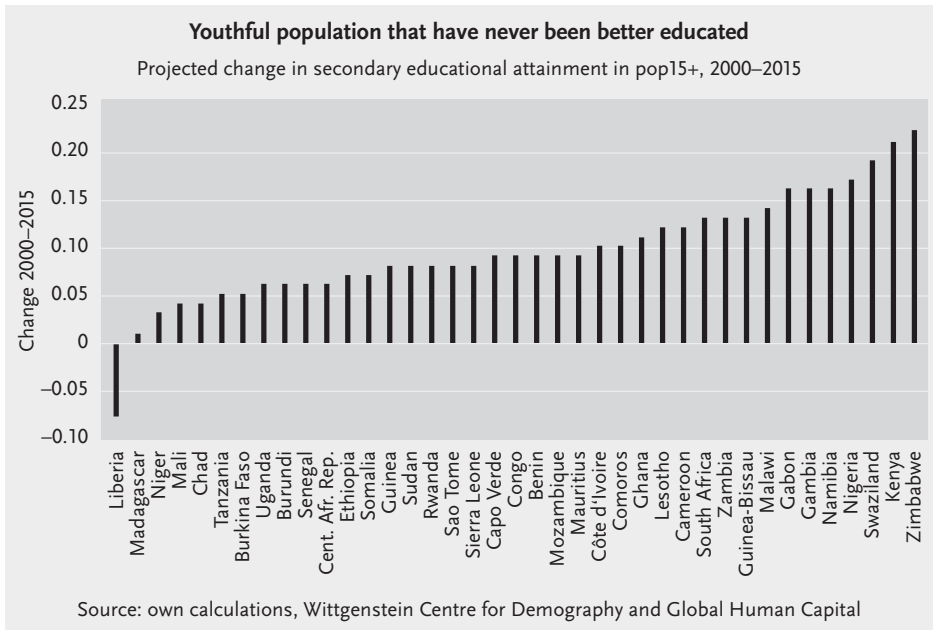
Context Highlights



The above Figure illustrates the very youthful population in SSA, which can be seen both as a source of hope and contention. Demographic dividend is the hopeful side but large investment into schooling is required in combination with sufficient labour market demand to leverage this demographic potential. There is also large youth bulges, which in some countries have started to decline. This is a sign that peaks have been reached and demographic dividend is kicking in.



Improvement in economic development has often been slow, but over the last decade, SSA has grown better than the world average. At current growth rates, some countries will manage to double GDP per capital within a generation (25 years).



Despite strains on education systems in SSA and concerns about low quality associated with poor teaching methods and overcrowded classrooms due to past high fertility, populations today have never been better educated. The Figure above displays change in fraction of population 15 + with at least secondary education attainment. Apart from drop in Liberia, secondary education has expanded from a small one percentage point in Madagascar to over 20 percentage points in Kenya and Zimbabwe.



Despite improvement in secondary education attainment, employment is dominated by agriculture. Employment in agriculture often implies: 1) for individuals—mainly contributing family member and vulnerable work, underemployment, not full time, and poor skills usage. This is because most of the agricultural activity is subsistence; 2) for society— structural change towards more productive and innovative manufacturing and services sector inhibited.

At the same time African countries have been democratising since early 1990s, with elections, although not perfect now the norm. This political scenario together with the demographic and economic trends presented above has meant that youth in SSA hold an unenviable position. On the one hand, they are considered ‘agents of change’ driven by aspiration for better life as portrayed by their classification in the youth dividend, a term used to imply their potential present and future contribution to Africa’s productive labor force, and on the other hand, they are viewed as ‘a lost generation’ who are trapped by their economic vulnerability’ (Resnick and Thurlow, 2015). This is the context in which organisations such as the African Development Bank and several African governments have now conceded that TVET may have a positive impact on school-to-work transition.

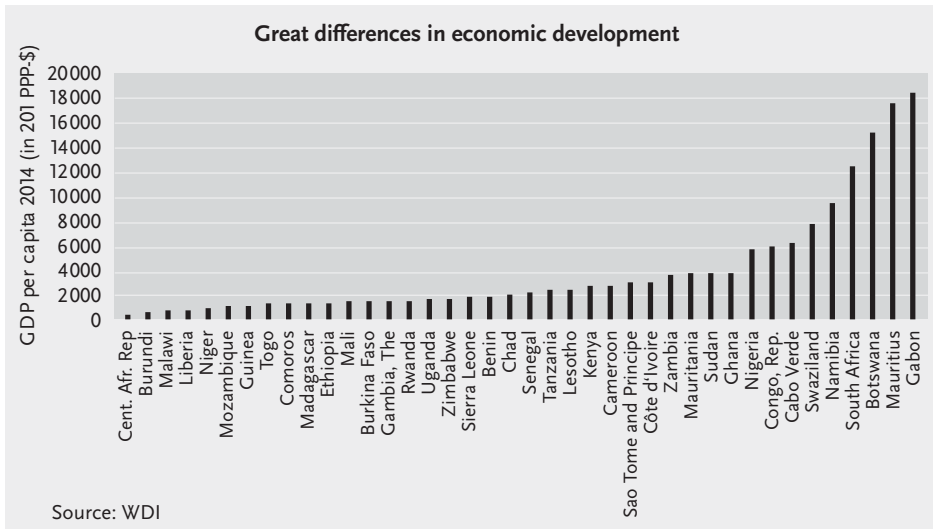
An overview of TVET trends in SSA

So far in most Sub-Saharan African countries, TVET has played a marginal role (Oketch 2015) despite recurring policy measures to combat youth unemployment and to promote economic growth through an expansion of TVET provisions. Enrolment in Vocational Education as share of all enrolled in secondary education is below 10% in most countries. Several scholars have focused on the difficulties with the promotion of technical and Vocational Education and Training which is attributed to a number of issues, not least, its mismatch with young people’s aspirations (Oketch 2007; Atchoarena and Delluc 2001; Foster, 1965; Biavaschi et al 2012).

Although TVET has a difficult standing in Sub-Saharan African countries, there is some evidence indicating that it leads to better integration into wage employment as a study on Ethiopia shows (Garcia and Fares 2008). There is also literature which have paid attention to the considerable share of self-employed (Aggarwal, Hofmann and Phiri 2010; Nübler, Hofmann and Greiner 2009).

The Case Studies – Ghana, Kenya and Botswana

There are great differences in the economic development of countries in SSA. The figure below illustrates this, but the three country cases in this paper, Ghana, Kenya and Botswana are among those that have shown improvement with Botswana way ahead of the other two. It is in this economic context that TVET reforms in the three countries is reviewed.



Ghana Case Study

TVET has formed an integral part of the education system since Ghana attained independence in 1957. Several reforms have taken place to align the education system with the needs of the society, but of these, the main reform focused on TVET integration in the education system was the 1987 reform which also changed the structure of the education system. Before the 1987 reform, the dominant provision at the secondary level was general education. The 1987 reform introduced pre-vocational skills programme made up of 12 subjects and pre-technical skills programme made up of 5 subjects (Akyeampong, 2005).

TVET was embedded within the Junior Secondary School (JSS) which now had a dual function: i) preparation of students for further Senior Secondary School (SSS); and ii) terminal qualification for entry into the labour market or self-employment. Greater diversification occurred at the SSS level. A significant feature of the diversified SSS curriculum was and still remains the case, the opportunity it accorded students studying different pathways to also select from other pathways. The combination was such that students in the TVET pathway could also select one or two elective subjects in science or languages such as French. It requires students to mix subjects as between general core subjects and TVET related subjects.

The reformed education system and the diversification introduced in the SSS was to address some of the challenges that had beset TVET in Ghana and to remove the dual track model by integrating TVET with general education, under what was referred to as a diversified secondary system. The merit of this was to encourage or allow those in the TVET pathway subjects to have the opportunity for progression into Further Education similar to those who were in the general pathway.

The reform expanded access as had been intended and helped to remove the impediments that had previously existed for TVET. At the JSS level, there was clear input into TVET and at the SSS level, there was diversification based on areas of strength and interests that students brought with them from the JSS. But even this attempt to integrate TVET and general education did not do the trick of amending the negative perceptions that had been associated with TVET subjects.

The attempt to introduce TVET early on in the system creates undesirable dual track and the attempt to diversify does not offer strong solution. The recommendation then is to strengthen liberal arts and science in the early years and allow for different pathways later on with the possibility for lateral and vertical movement. This does mean that the agenda for TVET in Ghana has to shift away from considering it as a means of coping with youth pre-vocational skills and those unable to transit into SSS, but rather that the foundation of all education up to JSS should be general arts and science and at SSS, serious TVET can be introduced. This would also mean that JSS is not terminal as such, but is the preparation for SSS where proper TVET skills can be instilled and those willing to proceed to university from the TVET strand can do so, and those wanting to join the labour market will also feel adequately prepared to do so.

Kenya Case Study

Since attaining independence in 1963, TVET has been viewed as a central pillar in addressing the issue of youth unemployment in Kenya. According to Mwiria (2005, p. 227) interest in vocationalising the secondary school curriculum dates back to the mid- 1970s and like Ghana, it was not until 1986 that the major reform to institutionalise vocational school curriculum was introduced. Similar to Ghana, this led to restructuring of the education system which introduced the current system known as the 8-4-4. This new system of education entrenched vocational curriculum right at the primary and secondary level mainly to equip the youth with pre-employment vocational skills. The system was changed from what was previously elite academic model of 7-4-2-3.

In terms of the curriculum content, the TVET under the 8-4-4 system comprised core vocational subjects and industrial subjects. The aim was to instill among the learners skills for self-reliance in self-employment ventures.

Mwiria (2005) offered an extensive review of the 8-4-4 system and its TVET character, looking at specific examples. He concluded with depressing comments: The whole policy change, including restructuring the education structure as was in Ghana's case ill-conceived to address the crisis problem of youth unemployment. "By blaming education for this [unemployment] crisis, education was made a victim for a problem it is incapable of resolving" (Mwiria 2005, p. 294). The causes of unemployment were not well understood and believing that TVET was the solution without first understanding the problem was in itself misplaced. Consequently the 8-4-4 system has been much criticised. Today the super elite simply don't want to follow the system and have enrolled their children in the inter-

national schools that basically maintained the elite British model. In the end, the 8-4-4 vocational content and requirements have been watered down so much such that its original vocational orientation has almost disappeared.

The Kenya vision 2030 that sets out priorities to make Kenya a middle-income country is promoting innovation and high level technical skills. It recognises the fact that the youth are Kenya's potential but it has no illusion similar to that which led to the 8-4-4 that simple integration of TVET in the education system will deliver the vision. It recognises rapid urbanisation and the need to create better jobs, to professionalise and expand the informal sector. This is much different from the 8-4-4 vision of TVET which was aimed as containing the youth in the villages and teaching them to appreciate agriculture.

Botswana Case study

Botswana is considered to have been successful in its implementation of TVET. Weeks (2005) attribute this success to Botswana's resistance to implement a full vocationalised secondary school curriculum. Instead Botswana opted for only providing some pre-Vocational Education through a limited number of practical subjects. Full-vocationalisation which Weeks (2005) defined as "the devotion of more than three to five hours a week to master trade of secondary schools is not possible in Botswana, nor has the government endorsed it" (p. 136). Botswana also invested heavily in TVET infrastructure because it had adequate resources and small population to do so (Weeks, 2005).

In 1977 and 1979 the first national Commission on education stated as follows "The purpose of the schools at all levels will be to prepare children for useful, productive life in the real world. They should have the basic skills of literacy, numeracy and the knowledge that will make them self-reliant later in life, whether they continue full-time schooling, study on their own, find employment, or become self-employed" (Botswana, 1977, p. 3 cited in Weeks 2005, p. 100). The first commission recommended that in senior secondary schools students should not take more than one practical subject. There was the clear belief that to take more than one practical subject might disadvantage a student when it came to tertiary selection (Weeks, 2005).

According to Weeks (2005) the second commission came about in the 1993–94 period and it simply re-affirmed the need to return to the 7-3-2 structure. It was aimed to guaranteeing universal access to basic education whilst consolidating vocationalising the curriculum content at the basic education level (Weeks, 2005). Botswana is unique in the sense captured by the comment from the second commission below, responding to criticism that it had not vocationalised enough:

"However, in terms of international trends it could be said that Botswana enjoys the advantage of having a senior secondary curriculum, which may be regarded as contemporary among middle-income developing countries as it has not suffered from, misdirected 'vocationalisation' efforts. The trend among middle-income countries is that emphasis should be placed on cognitive development, language,

mathematics, and science at the secondary level. **Training for employment should begin after education. Botswana is therefore correctly aligned in concentrating on the academic disciplines.** At the same time the key workplace-related subjects like Commerce and Design and Technology are being introduced (Botswana, 1993, p. 172 in Weeks, 2005, p. 100). In this regard, reforms in Botswana have been different from those of Kenya and Ghana.

As Weeks noted, it is recognised in Botswana that three to five hours a week on a practical subject will not usually lead to the mastery of what is required on the job or in self-employment. This is very different to what is happening in other countries where practical subjects were simply ‘sold’ to students and parents on the grounds that they will lead to employment, or if no jobs are available, at least to self-employment (King and McGrath, 1999; Lewin and Caillods, 2001 in Weeks, 2005, p. 138).

Botswana remained committed to systematically promote its pre-vocational education instead of trying to vocationalise its secondary schools. It also invested well in the facilities and human resources that supported this commitment. Even Foster who had been famous for writing the vocational school fallacy agreed in 2002, that Botswana had got it right, noting that Botswana had achieved “an appropriate structural and institutional environment” to support pre-Vocational Education in secondary schools (Foster, 2002, p. 28 cited in Weeks, 2005, p. 139).

Conclusion

To conclude, it could be argued that there are equally as many reasons why TVET in the education systems in Kenya and Ghana have failed as there are in favour of TVET integration. On the one hand there are benefits to increased TVET integration and initiatives that can have a positive impact on youth employability. On the other hand reviewed evidence suggest that there are negative effects to the way TVET has been implemented in the cases of Ghana and Kenya in the past and these effects have affected not only perceptions at the primary and secondary level, but TVET opportunities more generally, particularly because far from being a support for skills for jobs, TVET has trapped youth into dead end jobs without progression into higher levels of education or professionalised trades. However with these limitations in mind, it is potentially possible to reform TVET in order to realise Africa youth dividend, as shown by the case of Botswana. Firstly through addressing the capacity challenges by the renewed interest in TVET as shown by organisations such as AfDB, and clear national framework for TVET being put in place in countries such as Kenya where there is now a TVET Act, the contributions of TVET to addressing youth employability can be repositioned and nuanced so as to address the marginalised position of TVET within education system and for training.

Secondly the finance of TVET is also weak and the Kenya government 2012 draft framework for education under its 2010 new constitution acknowledges that the

government has paid and continues to pay low attention to TVET (MoE, 2012). The case of Botswana has highlighted the importance of adequate resources for TVET. The interest shown by AfDB to provide loans for TVET in Kenya and Ghana is a move in the right direction but more will be needed from national governments in terms of demonstrating priority for TVET by allocating adequate resources to the sector. Where private providers are more innovative and can offer functional and better labour market demand aligned TVET than governments, they can be supported through government fiscal incentives such as loans, and conducive policies that ensure growth and quality. Leveraging on public money to promote public-private partnerships in TVET provision can have “leverage effect” on TVET quality and relevance. Because private providers have been left to operate without government support and supervision, there are large variations in the quality of what is offered in the present private provision.

Some countries such as Botswana have a working framework for TVET. Several countries are now considering having similar framework to harmonise policy and practices. Where these frameworks exist, it is thought they begin to support integration of TVET as part of the plan to address youth employment. Compared to Kenya and Ghana, Botswana has arguably invested better in TVET and has thought through the TVET they wanted although the discussion in this paper has not matched this with evidence on actual youth employment in Botswana. This will require the next phase of this research to determine whether policies and trends deemed as appropriate, such as those in Botswana translate into better actual employability of youth with TVET qualifications. For majority of countries in SSA, TVET has remained desperately dysfunctional and inadequate to address youth unemployment and will require radical changes. Policies remain prescriptive with general statements about the potential of TVET, but these are immediately countered by system weaknesses and threats which simply render governments’ capability in so far as mounting functional TVET inadequate, and the perception of relevance of TVET offered in government institutions is low among employers.

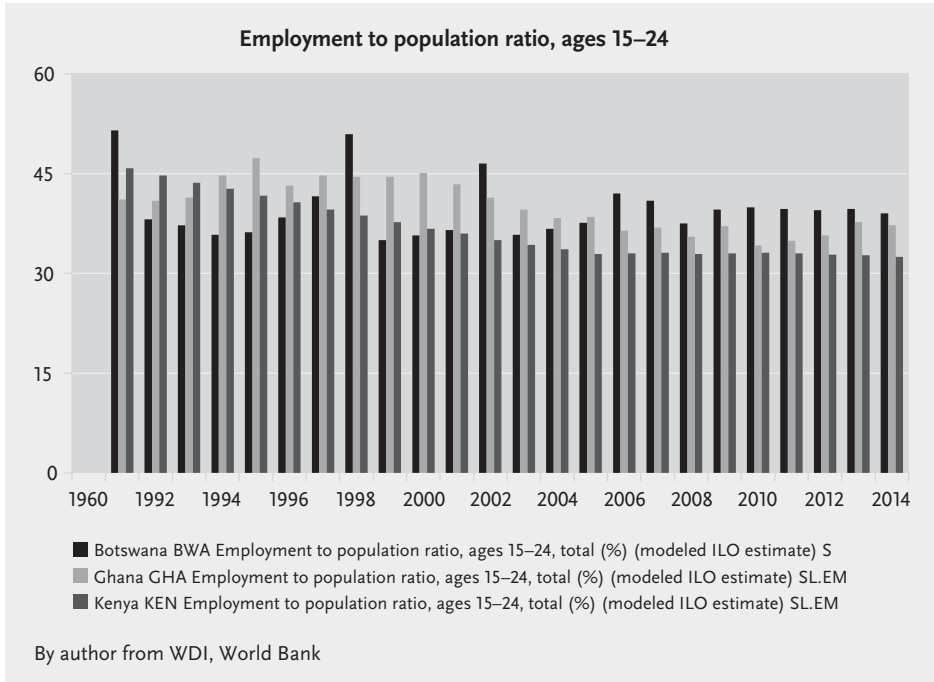
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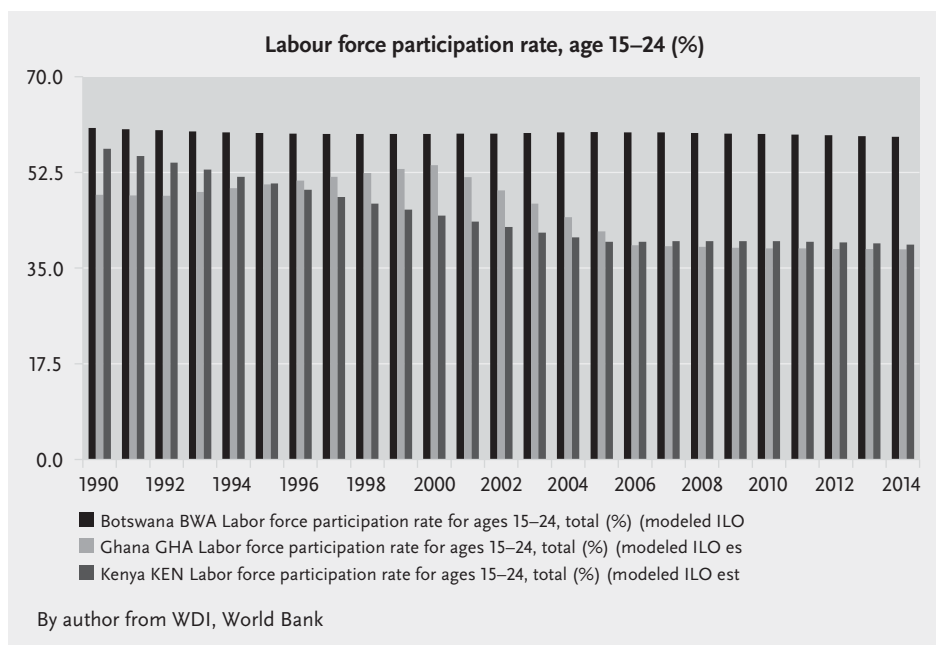
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Appendix 1: Trends in Employment, Economic Growth and School Enrolment- Botswana, Ghana and Kenya

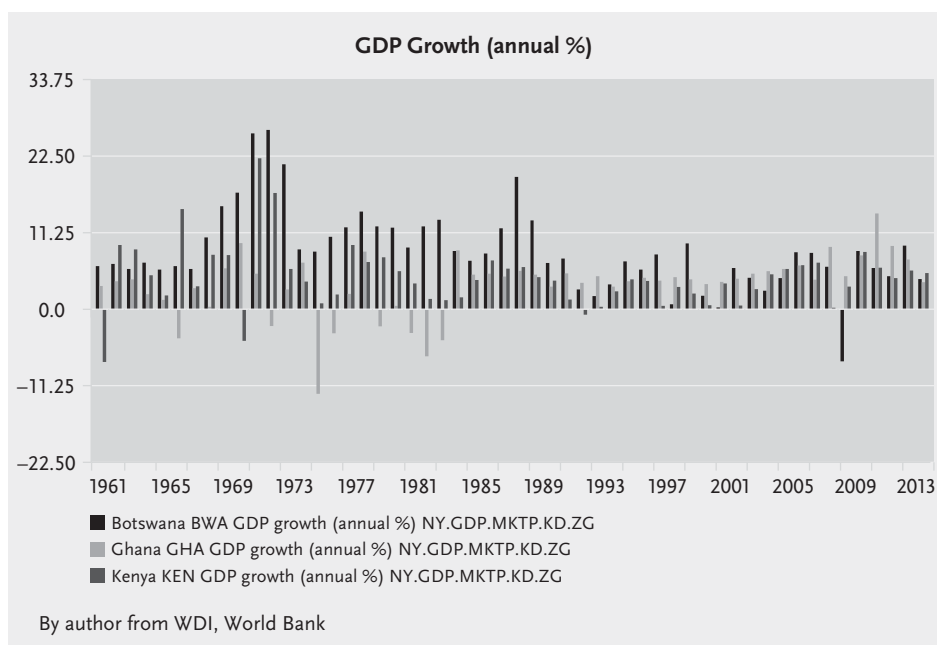
Employment to population ratio, ages 15–24



Labour force participation rate, age 15–24 (%)



GDP Growth (annual %)



Gross enrolment ratio, secondary, both sexes (%)

