

Policy Reforms in Technical and Vocational Education and Training (TVET): Lessons for the Nigerian Government towards Sustainable Industrial Growth

by

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Abstract

Systematic review was conducted to explore policy reforms in technical and vocational education and training (TVET): Lessons for the Nigerian government, towards sustainable industrial growth. This systematic literature review was guided by the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA). A search of multidisciplinary scientific electronic databases such as worldwide science and ERIC, together with manual searches of journals, were conducted in locating articles published in journals from 2007 to 2018. The search strategy included terms for education, policy, African, Nigerian, technical and vocational education and training (TVET) systems, and covered countries such as Singapore, Europe (British, German, and French) and Eurasia region (The Republic of Macedonia, Montenegro, Bosnia and Herzegovina, and Georgia), Chile, Sub-Sahara African (SSA) (Kenya, Ghana, and Botswana) and China. Articles included met the following criteria: 1) focused exclusively on TVET; and 2) described policy reforms in TVET. The search yielded 200 records and the full text of 20 studies were screened for evidence summary. After full text screening, six studies met all criteria. The findings of this study revealed among others that reforms undertaken by some developed and developing countries of the world, centered around enhancing relevance of TVET, expanding access and improving quality and equity in TVET, developing TVET pathways; strengthening governance and expanding partnerships, increasing investments in TVET and diversify financing, as well as advocating for TVET among the populace. The study recommends that Nigeria follows themes as common in the reforms undertaken by the various countries under review, and as outlined by the International Center for Technical and Vocational Education and Training (UNEVOC), for reforms in her TVET policy, towards sustainable industrial growth

Keywords: Policy reforms, TVET, systematic review, Sustainable industry.

Introduction

African countries with diverse geographic, economic and demographic backgrounds are still struggling with sustainable industrial growth. At the heart of these struggles is skills development through education and training, to fulfil labour market needs. Large amount of evidence by educationists and other researchers suggest that Technical and vocational education and training (TVET) is a rational and effective mechanism of dealing with these challenges, and preparing the labour force for the world of work in both formal and informal labour markets, for national

development. Strengthening TVET policies is the key to sustainable skills development in the African region. Skilled and competent workforce, according to Tripney and Hombrados (2013) and UNESCO (2013), is key to promoting youth employment, national productivity, economic growth, and market competitiveness both regionally and globally. Unfortunately, compared to the newly industrializing countries (NICs) of the world such as Korea, China, Malaysia, India, and Singapore, African continent and Nigeria in particular is yet to produce adequate skilled manpower perhaps due to lack of awareness of

enabling policies, or poor formulation and implementation of best policy and practices in TVET. According to Okorafor and Nnajiifo (2017), many policies have evolved over the last one decade but with outcomes falling behind expectations. For instance, in the Nigerian nation, while there exists the policy of technical colleges feeding polytechnics, the total products of technical colleges represent only a small percentage of available spaces in polytechnics. Also, while the National Policy on Education stipulates that technical colleges establish and operate production units for on-the-job training, as well as run commercial activities and partner with industries, most technical colleges unfortunately are lacking in adequate facilities and functional workshops to accomplish this mandate (Okorafor & Nnajiifo, 2017). According to New Straits Times (2012), in emerging economies such as Nigeria, only very few TVET institutions engage industries beyond industrial attachment for their students, collaboration in the development of curriculum and learning materials, training of instructors, provision of work-place practical training, facility improvement and employment opportunities. This is in addition to much emphasis frequently placed by TVET educational institutions on academic programmes as against manpower need of industries. Coupled with these is insufficient data on skill gaps to enable national manpower planning and implementation, as well as TVET assessment and evaluation largely "academic" as against industry based (Okorafor & Nnajiifo, 2017).

Over time, Nigerian policies have targeted improving TVET to better prepare students for a job market that requires sophisticated knowledge and skills. Concerns motivating TVET policies have included increasing skills gaps between Nigeria and other countries of the world, and marginalization based on social class, rurality, gender and ethnicity. These concerns highlight the importance of creating or strengthening Nigeria's policy frameworks for more responsive TVET systems, towards industrial growth of the Nigerian economy. This is coupled with the growing recognition of TVET in the actualization

of the Sustainable Development Goals 4 and 8 (Zancajo & Valiente, 2018).

TVET is defined as a range of learning experiences relevant to the world of work and occurring in a variety of learning contexts, including educational and workplace-related (Oketch, 2007). Policy, according to Chaurasiya (2009) is a written formal tool, empowering and guiding management and subordinates decisions and actions towards strategy implementation. In the view of Cohen (2012), policy is a thought through formalized practice expected by management. Inferring from the definitions of policy by Chaurasiya (2009) and Cohen (2012), TVET policy can be defined as a written formal tool of thought through formalized practices in TVET, for decisions and actions towards strategy implementation in TVET, by management and subordinates. Changes in the orientations of TVET policies, following analysis of policy documents on TVET, can be referred to as TVET policy reform (Zancajo & Valiente, 2018). Due to variations in TVET systems among various countries of the world, researching into TVET policies and their reforms, is not an easy task. In reality, there is no one "universal" policy on TVET system, which will suit Nigerians' need for an improved TVET systems tailored towards industrial growth. In the researchers' own opinion, so-called "best policy" is one often shaped by the history, economic needs and social motivation of the Nigerian community. Also, these policies must be in agreement with designing, delivering, adapting and managing TVET systems in response to global trends in industrial growth. Within the armpit of these TVET policies are answers to question such as: how can TVET systems respond to stakeholders and customers' increasing expectations, for best practices in TVET, to support industrial growth. Ultimately, the effectiveness and responsiveness of a sound Nigerian policy on TVET system should be one measured by its impact on the social and economic development of the Nigerian nation.

In view of the above statements, this paper identifies major policy reforms in TVET across various developed and developing countries of the world, towards industrial growth. It also highlights some policy reforms, which the

Nigerian government needs to take cognisance of, in her quest for improved industrial growth. The paper contributes to policymaking by providing appropriate strategies for assessing, re-contextualizing and implementing policies and programmes successfully delivering the mandates of TVET.

Statement of the Problem

TVET being a rational and effective mechanism of dealing with skills development for national development, has long been acknowledged in Nigeria. Therefore, several policies regarding reforming TVET towards addressing the skill needs of Nigerians, for national development, have been evolved over the last one decade. However, outcomes of these reforms have fallen behind expectations perhaps due to their poor formulation and implementation, or lack of awareness of best policies and practices of other developed and developing countries of the world. Thus, this paper looked at major policy reforms in TVET in other developed and developing countries of the world with a view to identifying lessons for policy reforms in TVET in the Nigerian context, for sustainable industrial growth.

Objectives of the Study

The study aimed at exploring policy reforms in technical and vocational education and training (TVET) with lessons for the Nigerian government, towards sustainable industrial growth. Specifically, the study:

1. reviewed major policy reforms in TVET in developed and developing countries of the world
2. identified lessons from the major policy reforms in TVET, for the Nigerian context, for sustainable industrial growth

Research Questions

The following research questions guided the study:

1. What are some major policy reforms in TVET in developed and developing countries of the world?
2. What lessons can be drawn from these major policy reforms in TVET, for the

Nigerian context, for sustainable industrial growth?

Research Methodology

This study adopted the design of systematic reviews. The systematic review is a novel methodology of finding and synthesizing all possible existing studies on a subject matter (Ilavarasan, 2017). The protocol on Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) was used for the search and selection of published papers on policy reforms in technical and vocational education and training (TVET), for lessons for the Nigerian government, towards sustainable industrial growth. For each publication, policy reforms in TVET, were analyzed. A search of multidisciplinary scientific electronic databases such as worldwide science and ERIC, together with manual searches of journals, were conducted in locating articles published in journals from 2007 to 2018, for inclusion. The search strategy included terms for education, policy, African, Nigerian, technical and vocational education and training (TVET) systems, and covered countries such as Singapore, Europe (British, German, and French) and Eurasia region (The Republic of Macedonia, Montenegro, Bosnia and Herzegovina, and Georgia), Chile, Sub-Sahara African (SSA) (Kenya, Ghana, and Botswana) and China. Articles included met the following criteria: 1) focused exclusively on TVET; and 2) described policy reforms in TVET. The search yielded 200 records and the full text of 20 studies were screened for evidence summary. After full text screening, six studies met all criteria. The screening of literature was based on three inclusion criteria, namely 1) original research work; 2) inclusion of the search items in the title/abstract; 3) relevance of literature to the objectives of study; 4) consistency of the body of evidence and; 5). the internal validity of the body of evidence. Two researchers independently applied the search, selection protocols and information extraction. Observed differences were resolved through *a priori* consensus. Based on the final reviews, relevant data were extracted and synthesized. The overall findings are summarized under two broad areas: policy reforms in TVET in

developed and developing countries and, lessons from major policy reforms in TVET, for the Nigerian context, for sustainable industries

Results and Discussion

Policy Reforms in TVET in Developed and Developing Countries

There is a wealth of literature on policy reforms in TVET in developed and developing countries of the world, which have helped move the TVET system forward. Reforms in TVET refer to systematic changes in the main components of the entirety of TVET through restructuring, innovative developmental projects, policy changes, power devolution and decentralizations. Based on the selected reviews, the findings indicate that many countries of the world have undertaken series of policy reforms in TVET. For example, in Oketch (2007) study on "To vocationalise or not to vocationalise? Perspectives on current trends and issues in Technical and Vocational Education and Training (TVET) in Africa", revealed some Sub-Sahara African (SSA) countries as tinkering with policies that create integration between general and vocational systems of education as a way of minimizing the two systems running at parallel, but although without much success.

Seng (2010) study on national policies linking TVET with economic expansion in Singapore reports of policy shifts in TVET by aligning education systems with economic development through industrialization, with national manpower planning and skills development as its strategic tool in attracting foreign investments; changing public perception and image about TVET by creating interest, and promoting the relevance of technical skills among the young through extensive efforts in communications, marketing, branding and public campaigns on "using the hand", "Top of the Trade" (that is, television competitions), and "Apprenticeship of the Year" awards; leveraging on industry partners with respect to their experiences, skills and technologies, and; journeying towards organisational excellence through constancy of purpose in pursuing its mission, vision and goals.

Jiang (2012) observed an all round policy reforms in the extraordinary progress of TVET in China tailored towards achieving the goal of "lifelong learning society" with self supported funds. According to Jiang (2012), China's success story in TVET reforms is hinged on its internationalization and joint-venture skills development with foreign countries as part of promoting international exchanges.

The United States Agency for International Development (USAID) (2014) study on TVET models, structures and policy reform evidence from the Europe & Eurasia region revealed seven major components in TVET policy structures and reforms in the Europe & Eurasia regions, and the policies and practices of the British, German, and French TVET models. These include partnerships among education, training institutions, industries and private enterprises towards building relevant and skilful labour force, for economic growth and development; developing and setting up of criteria framework in partnership with industry and the private sector, for levels of learning and competencies attained through education and training; development of quality curricula and teaching linked to the needs of enterprises, and involving on-site, practical hands-on experiences for the production of employable skilled labour; linkages between TVET institutions and higher education institutions with clear cut procedures for TVET students continuing learning and career progressions to higher education; "second chances" for retraining of labour to fit labour market demands by providing lifelong learning, adult and continuing education policies and practices, garnish with career guidance and counselling; financing of TVET from diversified sources such as user fees, as well as public and private sector supports, for the benefits of both students and private industries, and; management and policies of TVET systems must be industry-focused, enterprise-specific, and demand-driven coupled with long-term, system-oriented mindset among policymakers and enterprise stakeholders towards human resource development and training, and with ongoing commitment of time and political will in allocation of human and financial resources.

Zancajo and Valiente (2018) study on TVET policy reforms in Chile between 2006–2018 based on human capital and the right to education, reported of Chile's TVET policy recognition of the need for secondary TVET graduates to pursue a tertiary education for decent life conditions and so, provided a justification for state government's greater involvement in the provision, regulation and redress of inequalities in post-school of TVET systems (that is, in tertiary education).

These different studies on reforms in TVET policies have resulted in multiple positive impacts such as helping to enhance the relevance of TVET; expanding access and improving quality and equity in TVET; developing pathways; strengthening governance and expanding partnerships in TVET; increase investments in TVET and diversify TVET financing; as well as advocate for TVET among the populace.

Lessons from major policy reforms in TVET, for the Nigerian context, for sustainable industries

Based on the selected reviews on reforms in TVET policies, the findings illustrate an ongoing challenge of relevancy and effectiveness of TVET policies among various countries of the world. In reforming its existing TVET systems, each country has taken its own path to adopting new policies in sequential manner with one policy building on another. Striving towards attainment of sustainable industries through properly trained skilled manpower, to meet workplace needs in accessible, affordable, and efficient manner, is increasingly important. This importance is the basis for succinct descriptions of the policies and practices essential for real, sustained reforms in Nigerian TVET policies.

Thus, major policy reforms in TVET for the Nigerian context must address one or more of the following themes as common in the reforms in the various countries, and as outlined by the International Center for Technical and Vocational Education and Training (UNEVOC) of the United Nations Educational Scientific and Cultural Organization (UNESCO, 2019). They include the following policies:

- quality development of TVET systems for Nigerian youth employment and decent work engagements through a mix of alternative financing options such as user fees-based private sector financing, public-private partnership support, and public sector subsidies;
- improvement of the image of TVET among Nigerians by providing clear procedures for integrating TVET students into tertiary education, for continuing learning and career progression;
- promoting entrepreneurial learning in TVET in Nigerian TVET systems through (a) relevant workplace-based curriculum, which should include competency in basic skills, theories, applied learning, and practical on-site experiences; (b) evidence-based assessments and measurements of competencies in knowledge and skills; (c) on-site experiences; and (d) involvement of highly skilled and experienced, independent, industry-based teachers, trainers, and assessors;
- enhancing Nigerian women's and girls' access to TVET programmes and providing equal opportunities in the world of work;
- ensuring equal access to the TVET system for all, including disadvantaged and vulnerable groups through effective career guidance in the educational process as early as possible to help students identify their interests and abilities, and to limit students' uncertainty concerning training and employment. This will lead to better choices, lower students' dropout rates, improved students' commitment, opportunity for “second chances;” retraining to fit the demands of labour market of changing technologies and circumstances, increased mobility with standardized certifications, and social inclusion for unemployed and/or underserved populations for example, minorities and traditional excluded populations. As rightly observed by

Zancajo and Valiente (2018), while a wider participation of socially disadvantaged students in tertiary education may be encouraged with this policy reform, TVET policymakers should not lose sight of alternative policy frameworks such as political economy and capabilities in global capitalism;

- supporting teacher and trainer initial and continuous development;
- promoting education for sustainable development through inclusion of sustainable concepts in school's curricula, and;
- improving skills education through use of technology and preparing learners for a digital world.

Apart from formulating and implementing the above policies, or strengthening existing policies in these areas, such policies, according to UNESCO (2019), must have a positive impact or outcome at the local, national, and/or regional levels; have a well documented readily available knowledge base/valid information of its aims, processes, and impact; engage stakeholders through active cooperation between various partners in combination with ownership of the initiative by local stakeholders; be sustainable through effective management for continuity and success in subsequent years, and; be relevant to Sustainable Development Goals with focus on SDG4, which is Education (Target 4.3, 4.4, or 4.5), SDG5 that is, Gender Equality, and SDG8 that is on Decent Work. Engaging stakeholders through active cooperation for instance, is critical to developing, delivering, assessing, and continuously updating curricula in TVET; skill standards in TVET; competency requirements in TVET to meet labour market demands; skill needs

Conclusion

The evidence summary comprises six systematic reviews focusing on various reforms in TVET policies, which have helped to move the system forward. The summary groups the reviews under two broad areas: policy reforms in TVET in developed and developing countries and, lessons from major policy reforms in TVET, for the Nigerian context, for sustainable industrial growth. Each study has its own specific focus on reforms in TVET policies, resulting in multiple positive impacts such as helping to enhance the relevance of TVET; expanding access and improving quality and equity in TVET; developing pathways; strengthening governance and expanding partnerships; increase investments in TVET and diversify financing; as well as advocate for TVET among the populace. Major policy reforms in TVET follow themes as common in the reforms undertaken by the various countries under review, and as outlined by the International Center for Technical and Vocational Education and Training (INEVOC)

Recommendations

Based on the findings of this study, the researcher recommends the development and support by government, of the following measures, towards the sustainable industrial growth of the Nigeria economy:

1. relevant workplace-based curriculum;
2. evidence-based assessments and measurements of competencies in knowledge and skills of both teachers and students;
3. on-site experiences in TVET;
4. involvement of highly skilled and experienced, independent, industry-based teachers, trainers, and assessors;
5. clear specifications of procedures, for integrating TVET students into tertiary education, for continuing learning and career progression;
6. teacher and trainer initial and continuous development;

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