Changing Landscape of Industry Practice: The Role of Quality Technical Vocational Education and Training in Ghana

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Abstract
This study sought to investigate Technical Vocational Education and Training (TVET) in Ghana, which has emerged as one of the most effective human resource development strategies that African countries need to embrace in order to train and modernise their technical workforce for rapid industrialization and national development. The landscape of industry has been changing over time, it has and is still transforming with many tangents emerging. Currently, the TVET system faces a number of challenges, including quality outcomes. This paper explored the changing landscape of industry practice and the role TEVT can play in its development. A qualitative approach was used to collect data through a cluster sampling technique. The sample population comprise selected manufacturing industries in Ghana, TVET training institutions and selected graduates practicing their acquired skills from these institutions in the industry. Findings indicate some manufacturing houses were not equipping their businesses with sophisticated technologies because of the lack of skilled manpower to operate them.

Keywords: Ghana, TVET, changing industry landscape

1. Introduction
According to UNESCO (2012), ‘people need foundation skills to stand a chance of getting jobs that pay decent wages and becoming a productive force in the economy. These skills are best acquired through formal education, but many people enter adult life without these skills’ (p.179). According to the Global Information Technology Report (2013), the emerging trends in globalization of trade and industry coupled with fast changing technologies and mass unemployment are forerunners to changes in industrial structures and employment patterns. The effect of this trend on labour markets are that, most jobs are declining in significance. Whereas some are rising in prominence, others require complete new skills. The changing industrial landscape is playing a significant role in modernizing societies and advancing standards of living, consequent to these advancement is the requirements of a unique skill set to increase competitiveness.

Technical and vocational education and training (TVET) has emerged as one of the most effective human resource development strategies that developing countries and particularly sub-Sahara Africa need to embrace in order to train the technical capabilities of its workforce for rapid industrialization and national development (Afeti 2012). Pavlova (2014) suggest that TVET plays a crucial role in the social and economic development of a nation. Owing to the dynamic nature of TVET, they are continuously subject to the forces driving change in schools, industry and society. Often shaped by the needs of the changing economy and local community, the challenges and opportunities are unique. The main contention in this paper is not so much about the value and importance of TVET, but our emphasis is how to ensure TVET is relevant, and responsive in an increasingly dynamic global economy.

The benefits of TEVT to the changing industrial development cannot be overemphasized. The world has undergone massive changes that, whiles developing countries are struggling to emerge from the financial crisis, developed economies are striving to return to higher levels of growth and competitiveness while managing to control high unemployment rates. Both emerging and developed economies are focusing on innovation, competing for talent, resources, and market shares (GITR, 2013). According to Cedefop (2012, p. 31), ‘it might be thought that the movement away from more hierarchical structures would undermine the role of training, but this is not the case’. As Okorie (2001) put it TVET has prior purpose of providing skills, knowledge and attitudes to prepare individuals for employment in recognized occupations or career for nation building.

Over the past few years, Ghana like several other countries in Sub-Saharan Africa has devised several approaches to address and re-engineer TVET as the backbone of industrialization in the continent. This re-engineering and repositioning of TVET has been reflected in several national policy documents including but not limited to Ghana Poverty Reduction Strategy (GPRS I &II), The New Education Reform 2007 (NER), the draft Long Term Development Plan 2008 – 2015, the Private Sector Development Strategy 2010 - 2015 (PSD II), the revised Education Strategic Plan (ESP) 2010 - 2020 and the 2004 TVET Policy Framework which led to the passing of Act 718 and the subsequent establishment of the Council for TVET in 2006. The main objective of these policies and the establishment of the Council are to guide, streamline and promote the TVET system in Ghana.

Despite the renewed focus, TVET in Ghana continues to be plagued with a number of challenges
including but not limited to poor quality in delivery, high cost of training, disregard of the needs of informal sector and neglect of the needs of the labour market. Education we always say is the engine of growth and key to development in every society. Human capital theorists argue that, education is highly instrumental and necessary in improving the productive capacity of a population. In fact they maintain that an educated population is a productive population (Olaniyan and Okemakinde, 2008). Lauglo and Lillis (1988) notes that a problem which in improving the productive capacity of a population. In fact they maintain that an educated population is a productive population (Olaniyan and Okemakinde, 2008). Lauglo and Lillis (1988) notes that a problem which has preoccupied many countries for a long time is the issue of investing in general or vocational education. But TEVT has the advantage of imparting specific job-relevant skills which make the worker more readily suitable for a given job and hence more productive.

The Ghanaian economy is going through a period of significant change, driven by a number of factors, including new and emerging technology. This period of change has seen increasing focus on the capability and willingness of businesses and industries to adapt to change. This change necessitates Ghanaian educational institutions to innovate and respond flexibly to the shifting industry demands if such institutions will remain relevant. The changing economy means that Ghanaian industries are embracing technological and business process innovations to achieve competitive advantage in the global market. Jobs will continue to be more complex and there will be a consequential increase in demand for a workforce with superior skills.

2. Literature Review

Vocational and Technical Education is fraught with conceptual and definition inconsistencies and such Strong (1990) describes this as an “identity crisis” (p. 45). The terms “Vocational” and “Technical” assume different meanings, not only across countries but even within the same country. Ghana Education Service, (1999) describe ‘vocational’ to denote visual arts such as the handicrafts and home economics subjects whereas the term “technical” refers to trade, industrial, engineering-related subjects such as technical drawing, applied electronics, auto mechanics and woodwork. According UNESCO and International Labour Organisation (ILO) (2002), Technical and Vocational education refers to those aspects of educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge related to occupations in various sectors of economic and social life.

Similarly, the European Training Foundation (1997) contends that Education and training aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labour market. On the one hand, NICHE (2010) acknowledged that technical education denotes theoretical vocational preparation of students for jobs involving applied science and modern technology.

2.1 Historical Overview of Technical and Vocational Education in Ghana.

TEVT in Ghana has gone through several stages, including various education reforms and policies. Ghana’s workforce has grown rapidly since its independence in 1957 but formal employment has failed to grow at the same rate, resulting in significant levels of unemployment and underemployment (ILO, 2003). The Ministry of Education, Science & Sports (2008) recognizes that the country’s training system is not yet producing employable graduates with the right skills and has therefore placed TVET at the centre of its policies to help solve employment problems and reduce poverty (King and Palmer, 2007).

According to a study undertaken by the Japanese International Cooperation Agency (JICA) for the Government of Ghana, the TVET system in Ghana is so fragmented and spread across so many different ministries and agencies that ‘not even the government has a full-clear picture of the situation’ (GoG, 2004). Baffour-Awuah and Thompson, (2011) notes that successive Governments have attempted to coordinate TVET in Ghana through the establishment of the National Vocational Training Institute (NVTI) in 1970 which was initially mandated to be responsible for the nationwide coordination of all aspects of vocational training. Following the failure of NVTI’s in coordinating the activities of TVET, the government established the National Coordinating Committee on Technical and Vocational Education and Training (NACVET) in 1990 which was again meant to coordinate both formal and informal a national skills development system which also failed to coordinate the activities of TVET in Ghana.

Government in its desire to reform the education sector as a whole set up a Committee in 2002 to study the education sector and make recommendations. One of the key recommendations was to set a Council for Technical and Vocational Education and Training (COTVET) to oversee all aspects of TVET in the country. Hence a Parliamentary Bill to establish COTVET led to the COTVET ACT (718). The Act mandated COTVET to co-ordinate and oversee all aspects of technical and vocational education and training in the country.

2.2 Quality Technical/Vocational Education and Training

Quality education has gained primary focus from education providers and is currently one of the most vital elements in the development of any education system. This has become necessary as it aids in enhancing stakeholder confidence, and enables the workforce in any sector to adapt to the ever-changing global environment. According to African Union (2007), quality education is a multidimensional concept. It embraces
all functions and activities of an education system including: teaching and academic programmes; research and scholarship; staffing; students buildings, services to the community, academic environment and taking into account national cultural values among others.

Morris (2013), maintains that quality has become an increasingly important aspect of TVET over the past decades. The demand for TVET coupled with the expansion and diversification of training systems has dramatically increased the need to develop and implement more formal notions of quality, along with associated procedures for quality assessment, monitoring and improvement (Morris 2013). Quality in TVET includes several activities, from self-assessment of the institution to the use of the outputs of the assessment. Quality education is directly related to the achievement of the learning outcomes that is knowledge, skills and competence achieved at the end of the learning process which fulfils the key stakeholders’ (students, parents, employers and community) expectations.

Quality in TEVT must be focused on providing confidence that quality requirements will be fulfilled. In 2001, the European Ministers of Vocational Education and Training set out a policy agenda for Quality Assurance (QA) in Vocational Education and Training (VET) within the process of promotion as a way of enhancing European cooperation in VET (see Cedefop, 2009). As such, a Common Quality Assurance Framework (CQAF) was developed; this framework was endorsed in 2004 but gained recognition in 2006 as there was a need to progress from the CQAF to that of a culture of quality improvement (Cedefop, 2009).

Some qualifications and types of education and training, such as TEVT, have weak reputations for quality, especially in Africa and specifically Ghana due to certain institutional constraints (Afeti, 2012). To articulate the qualifications of TEVT with other qualifications, mechanisms must be put in place to assure quality, relevance, coherence, consistency and standards (Afeti, 2012). Navaratnam and O’Connor (1993) noted that quality is critical to the future of Vocational Education as training must be geared to the needs of industries and the graduates who seek to work in them. They maintained that employers want quality graduates, and students expect that the skills and standards required by industry are provided to them by the training providers.

2.3 The Role of TEVT in National Development
Afeti and Adubra (2012) acknowledges that knowledge and skills are the key drivers of most economies. They oil the wheels of industry and commerce. Developing a skilled human resource for the growth and transformation of African economies is thus a major development issue. Afeti (2012) explains that since the beginning of the new millennium, a fresh awareness of the critical role that TVET can play in economic growth and national development has dawned among policy makers in many African countries and within the international donor community. The increasing importance that African governments now attach to TVET is reflected in the various Poverty Reduction Strategy Papers that governments have developed in collaboration with The World Bank.

Nations all over are confronted with the challenge of improving the capacity of their workforce to respond to their own national development needs and to the demands of a rapidly changing, and more globally competitive world. Many, both in the developed and developing world, realize the significant role TVET plays in equipping individuals with relevant skills and knowledge, enabling them to effectually participate in social, economic and technological innovation processes (NICHE 2010). TVET can play a vital role in economic development and poverty reduction if due attention is given it.

One of the most important features of TVET is its orientation towards the world of work and the emphasis of the curriculum on the acquisition of employable skills. TVET delivery systems are therefore well placed to train the skilled and entrepreneurial workforce that Africa needs to create wealth and reduce poverty. Pongo et al. (2014) suggests that an important characteristic of TVET is that it can be delivered at different levels. This means that TVET can respond, not only to the needs of different types of industries, but also to the different training needs of learners from different socio-economic and academic backgrounds, and prepare them for gainful employment and sustainable livelihoods. A skilled workforce is a basic requirement for driving the engine of industrial and economic growth, and TVET holds the key to building this type of technical and entrepreneurial workforce (Afeti 2012).

2.4 Changing Landscape of Industry Practice
Hepburn (2011) notes that the world’s industrial landscape has changed dramatically in the past 25 years, this transformation is driven by a combination of economic, political, demographic and environmental trends. Larger workforces will keep fuelling the developing world’s emergence. Many factors drive industrial growth, the first is the availability of labour. The UN (2012) forecasts that all of the growth in the working-age population (20–59 years) by 2020 will be in less developed economies.

The past few years has witnessed incredible and rapid transformation in the industrial landscape in the world, changing not only the foundations of economies and social life but also the knowledge, skills and competencies that people require in almost every field of endeavor (Baker et al. 2012). This has resulted in a
dramatic shifts from agrarian and industrial eras to knowledge-based, accompanied by equally dramatic changes in the nature and structure of work. Forces include the progressive globalization of trade and communications, technological advances that encourage constant and rapid change in economic and social life, and demographic changes resulting from improvements in health and social conditions (Guthrie et al. 2005).

3. Methodology

Exploratory approach was adopted for this study due to the nature of the study – understanding the dynamics of the changing landscape of industry practice and the role TEVT can play in its development. This study employs a case study strategy using multiple cases. In order to obtain conclusions which are valid and reliable, semi-structured and in-depth interviews were employed. Cooper and Schindler (2008) explains that in a study that includes an exploratory element, it is important to include non-standardized (qualitative) research interviews in the design. The in-depth interviews provided the opportunity to probe answers given by respondents.

The population this study focused on was the fashion industry in Ghana, TVET training institutions and selected graduates practicing their acquired skills from these institutions in the industry. Putting an exact figure to this sample is somewhat difficult as there is no statistical information indicating the number of manufacturing industries or private or public institutions offering TEVT programmes in Ghana. The criteria for the case selection was based on the fact that, such fashion industries employ TEVT graduates whiles the institutions are well known to the authors to offer TEVT programs. Based on this criterion, two (2) clusters each from each case was used for the study. In all, eighteen (18) personnel from the identified fashion industry, sixteen (16) lecturers from the institutions and thirteen (13) TEVT graduates – Higher National Diploma (HND) and Bachelor of Science (BSc. Fashion Design and Textiles studies) working in those industries were used.

In order to gain a representative sample, cluster sampling method was adopted. The fashion industries were divided into distinct groups based on their type. Institutions and lecturers were also divided into clusters based on the fact that they offer TEVT programs. Clusters were then selected randomly. The names of the industries and institutions used were left out for confidential reasons. Semi-structured and in-depth interviews were used in the data collection. Interviews took place between January 2015 and April 2015. The interviews were conducted face-to-face and lasted between 45 minutes to one hour each. The interviews were conducted in English and Twi a local language in Ghana. The Twi was later translated using the back translation strategy.

Analysis of interviews was done through the use of conceptualization based on meanings expressed by respondents. The interview guide included items on the extent to which TEVT contributes to the economic development of Ghana, the changing state of industry practice relative to the radical changes in the competitive business landscape and TEVT training being provided in Ghanaian institutions, the level of awareness of TEVT educators and learners in the changing landscape of industry and how TVET can be restructuring to meet the demands of modern industrialized practice.

4. Discussions

It has always been a challenge in Ghana to change the mind-set of people especially students and parents, about TVET being a good choice for skills acquisition. Most people view TVET in a negative way hence conclude it is an education meant for those who have failed in the society. Most parents, even those with TVET background want to see their children becoming doctors; lawyers etc. just because they believe this will give them better job opportunities. This challenge is crippling the development of TVET in Ghana and it is apparently one of the major obstacles to improving the social status of TVET. Apparently in most circles in Ghana, a university degree is still the ticket to social mobility, even if it does lead to unemployment. Until people begin to perceive TVET as an education and training designed to provide the trainee with the basic knowledge, skills and abilities, needed for one’s efficient performance in his/her chosen occupational carrier for self-reliance and national development, TVET in Ghana will continue to experience limited prospects for professional development.

Most people believe TVET has the potential of stimulating the industrial and economic development of a country since it is a pivotal basis training that helps to equip people to put to good use their God given talents. And most of the respondents were of the same view:

‘Even though most of the products from the TVET need further on the job training to be effective, TVET contributes immensely to the economy of Ghana by providing self-employment to the youth thereby saving the Government from the headache of creating jobs for them. This way the Government can also tax them to widen the tax net of Ghana’.

‘Acquisition of TVET skills ensures vibrant manufacturing and construction sectors and therefore provide the nation with a solid economic base and make it less reliant on goods, product and services of other countries which drain nations of the much needed foreign exchange. skilled workers who may be in abundance in a country due to a good technical and vocational education policy to create foreign exchange’.

‘TVET increases access of young person’s to skills acquisition and empowerment for productive employment, it is also helpful to people in securing suitable employment that allow generating income and lifting their
economic status. I have come to the conclusion that TVET plays a very important role in the economic growth and development of countries and well-trained and motivated work force forced output to expedite socio-economic development.

The emerging trends in globalisation of trade and industry, fast changing technologies and mass unemployment, are forerunners to changes in industrial structures and employment patterns. Ghana is not left out in the growing structural changes in various industries. Today most of the fashion industries for instance have evolved from home based businesses to large and modern manufacturing companies. A case in point is ‘Eben’ fashion house which according to the Chief Executive Officer (CEO), has evolved from a small corner in his house to the state of art manufacturing establishment today. He mentioned that he started with two domestic sewing machines and one apprentice but today he can boast of over 100 industrial machines. This development according to him is not peculiar to him, as several fashion houses in Ghana started as such.

The size of workforce employed in industries, where quality skills are required are on the increase. This changing landscape of industry developments has crucial repercussions for skill training, inferring among other things the need to provide enduring, quality, continuing and recurrent technical and vocational education. In an effort to respond to this emerging challenges, TVET institutions are somehow implementing various interventions to improve quality. However there still is an increasing mismatch between graduates produced in TVET institutions since they do not meet the fast changing industrial requirements. Many skills requirements are volatile and driven by rapid technological change (OECD, 2011).

Respondents who were graduates practicing their acquired skills in the fashion industry bemoaned that their experience at the industry has rather exposed them to some modern tools and equipment such as industrial machines which are lacking in their institution and that to them, their education only introduced them to their profession but did not equip them enough for the world of work. The managers of all the fashion houses interviewed also mentioned the fact that their aim of equipping their firms with more sophisticated machines was being hindered by the lack of skilled manpower that can operate those machines. They argued that TVET institutions should be ‘upgraded in terms of modern equipment to adequately prepare their students’, since they would want to partner them for the provision of manpower requirement of their industry. It can be concluded from the above that, currently the TVET system in Ghana has failed to meet the changing demands of fashion house competencies. Much must be done speedily in that direction if the changing needs of the industries must be met to ‘catch up with the global change’ as expressed by a respondent.

Respondents specified that, the mere acquisition of skills does not automatically lead to employment. Often, TVET strategies fail to recognize this fact. Providing vocational training merely as a means of keeping the youth off the streets without linking training to the growth and employment generating sectors of the economy, is a poor workforce development strategy. It also undermines the credibility of vocational skills acquisition as an effective response to youth unemployment. With the move towards a skill based society, far-reaching changes must take place in skill acquisition to meet the demands of the industry.

On the level of awareness of TVET educators and learners in the changing landscape of industry practice, TVET educators are supposed to be aware of the changing landscape of industry practices so that they can impact ‘up- to- date knowledge to their learners’. But findings indicated the awareness level of both educators and learners in the changing landscape of fashion industry practice is low. Most institutions interviewed indicate their knowledge level is limited to books and magazines and have not physically seen some of the modern machines and trends in the fashion industry. Most fashion houses also specified they have ‘some modern machines locked up in the store room for lack of operators’. This is indeed alarming.

5. Conclusion

The study examined the changing industry landscape and quality of TVET in Ghana. It was realised that increasing skills builds human capital and encourages the growth of high-productivity industries that employ high quality skilled workers. In a labour market that is experiencing a high level of change and where the demand for higher level skills is increasing, employers need to be confident that holders of TVET qualifications do possess the skills and knowledge defined by such qualifications. We all appreciate it is through education that the necessary skills, knowledge and aptitudes are acquired. However, the image, standards and values of TVET still remains elusive. This is because it faces problems of quality outcomes, hence the increasing need for it to be more responsive to industry demands. These problems are compounded by the fast changing landscape of industries.

TVET is critical in improving competitiveness and contributing to social inclusion, decent employment and poverty reduction. It is an essential area in the development process of every nation and over the past few years has been evolving as a crucial strategy that is directly linked to growth, development, poverty reduction (Afeti & Adubra, 2012). It is essential hence to examine industry-related issues under the TVET sector such as; standards and indicators of quality and re-strategize TVET programs to improve the quality of skills and discover ways to strengthen collaborative linkages between TVET institutions and the industry. This will
increase the probabilities of TVET graduates gaining employment in the industry. Job-shop production refers to a manufacturing environment that produces goods in small batches according to customer specifications. Usually, one or several types of products are deliverable, while the incoming orders may differ in the design, quantity, process flow, or urgency (Henrich 2005). Flexibility is allowed in terms of switching between machines, methods, and resolving problems in production. Depending on the nature of business, each of the workers hired may need to possess a certain range of skills to handle different tasks or machines, whereas the total number of workers may be adjusted in response to the varying demand. In practice, transferability of permanent workers and recruitment of temporary or contract workers will help make such adjustment feasible, thus admitting of the idea of WOZIP.

References


Figure 1. ‘Eben’ Fashion house
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