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**COMPARATIVE ANALYSIS BETWEEN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING MODELS OF EUROPE WITH NIGERIA**

By

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**ABSTRACT.**

*The purpose of this paper was to conceptualize the idea and to see what makes some countries in Europe continent's Technical and Vocational Education and Training (TVET) models successful and how Nigeria can correct its TVET problems. European countries like United Kingdom, France and Germany have developed TVET models and recorded human developments. While, with implementation of National Policy on Education, Nigeria has developed TVET model and recorded poverty increments from 1980 to date. The idea was to see what makes Europe TVET model successful and how Nigeria solves its TVET problems. The methodology employed in this paper was analytical method that compares the countries education and their social and economic development based on critical reading and review of materials which include TVET models and economic developments. Findings revealed that developed TVET models of Europe continents is likely contributed to their human development, while Nigeria TVET model is likely contributed to its poverty incidence.*

**Keywords.** Technology Education, Poverty, Comparative Analysis, Economic Development, Europe, Nigeria

**INTRODUCTION**

Comparative research on educational matters, problems and achievements are essential and important for the development of all countries in the world because the studies enable the researcher to conduct cross national analysis and evaluation; makes the researcher more global; provide worldwide interconnectedness in contemporary educational issues, problems and developments; enable all researchers in all countries to have equal access of study and make countries to learn the experiences of others thereby making the world to be borderless (Bray, 2003). It is essential for underdeveloped countries to learn from the developed countries when the underdeveloped countries want to establish their own TVET system, because of their mature experiences and long historical development in

technology for over 100 years ago. However, each country has its own national circumstances; therefore, the underdeveloped countries should adopt the experiences of the developed countries, use them and fit them in their own circumstances (Hongzhou Education Bureau, HED, 2005). The researcher chooses to analyze and compare TVET models of Europe and Nigeria in relation to their economic developments. The comparisons may likely reveals the strengths and weaknesses of European TVET model for the benefit of Nigeria current TVET system.

**METHODOLOGY**

The analytical method compares the countries TVET systems and their social and economic development based on critical reading and review of

literature of three major economies of Europe which include Germany, France and the United Kingdom in comparison with Nigeria TVET system and her economic developments.

### **COMPARING THREE MAJOR EUROPEAN TVET MODELS WITH NIGERIA**

In this section, the critical reading and review of literature of three major economies of Europe which include Germany, France and the United Kingdom was done to find the strengths and weaknesses of their TVET systems in comparison with their economic development. Through this analysis, Nigeria may likely update its TVET system. This is because Germany, United Kingdom and France have contradictory TVET models and up till now are the three major economies of Western Europe (NCVER, 2002) while Nigeria TVET is fully implemented since 1980's and poverty incidence is increasing (Bello and Roslan, 2010).

#### ***Comparative Analysis between Germany and Nigeria TVET Models and their Economic Development***

The TVET Dual System model of Germany was highly recognized in Europe because the model produced the lowest youth joblessness percentage of 2.6% as related to Netherland with 4.3%, Austria with 4.4%, Czech Republic with 11.9% United Kingdom with 13.1%, France with 14.7, Poland with 17.1%, Slovakia with 19.4% and Spain with 29.3% in year 2013. The 64% of employees in Germany were trained through the dual TVET-system as at 2012. The TVET Dual model of Germany is indispensable part of the overall education in the country. The theoretical aspects of TVET the Dual model are acquired at in public training colleges while practical modules are learned in industry. The Germany's TVET Dual model is inexpensive to government and industry for the reason that the expertise are acquired through on-the-job training. The fundamental characteristic of the Germany Dual model of TVET is the

close partnership among all societal links. The Germany's Dual model of TVET is strongly incorporated into the nationwide economy. The Germany's Dual model of TVET has lengthy histories which are revised frequently. The Germany's Dual model of TVET programmes is cumulative extremely in higher education (Germany Trade and Invest, 2014).

In spite of these lengthy historical successes and the preservation of practices of TVET Dual Model of Germany, has joined the world TVET improvement program. Unique of the most interesting difficulties in the dual TVET model of Germany is the challenge to determine the limits between initial TVET and final TVET in the training package, also to determine the link between part-time and full-time. Other difficulties comprise long-lasting shortage of training places in industry and absence of flexibility in the training model (Ryan, 2001 and Harris, 2001).

The dual TVET training in Germany begins at technical colleges (Hauptschule) and around 25% of primary schools graduates gain admission into the Hauptschule. Germany maintained the rate of economic development of 5.3% from 1953 to 1973 and keep up industrial development with large manufacturing sector (35%), higher to its main European economic competitors of the United Kingdom (27%) and France (25%). Despite these lengthy historical economic achievements of Germany that stemmed from her dual TVET model, Nigeria did not learn the admission requirements into Germany dual model, dual TVET training system and graduates employability skills and German economic developments.

#### ***Comparative Analysis between United Kingdoms and Nigeria TVET Models and their Economic Development***

The United Kingdom's competency based TVET model involves theoretical, applied and practical learning in the training package which is supported by set of

government rules that provide distinction between general grammar education and TVET model. British embraced mixed method approach to TVET training that include school based training and apprenticeship by voluntary organizations.

Nigeria followed British TVET model at pre independence, independence and post-independence until 1969. With adoption of American School Based TVET model in the 1970s which emphasized on teaching and learning of TVET courses in formal school system and establishment of polytechnics and universities of technology in Nigeria (Uyanga, 1998), initial TVET training begins from secondary school level in Nigeria which lack qualified TVET teachers and the admission requirements into engineering programmes of polytechnics and universities does not require credit pass of engineering technology subjects at ordinary level rather than five credit passes in sciences, mathematics and English (NUC,2007). Therefore, at entry points, Nigerian made engineer lack attitude to handle engineering equipment and tools. During training sessions, Nigerian engineering were prepared mostly for design principle as required in US and not maintenance principle as required by Nigerian industries. The lack of maintenance expertise of engineering graduates may likely contribute to their rate of unemployment and poverty incidence of Nigeria.

### ***Comparative Analysis between France and Nigeria TVET Models and their Economic Development***

France followed the same TVET Competency Based Model like UK and firmly upheld school based training method while neglecting the apprenticeship model which is completely employed in Germany and partially employed in UK (NCVER, 2002). France gave low priority to apprenticeship TVET training and considered it for low academic students and less respected

occupations. However, since 1980s governments developed concerned with high level of youth unemployment in contrast to those of Germany, which to some extent attributed to the success of TVET dual training model. These force the Successive governments of France to modernize and increase apprenticeship training. First of the strategy employed by France was the decentralization of TVET to regional governments. Second strategy was developing different pathways of apprenticeships training systems which include baccalauréat professionnelle and brevet d'études professionnelles to the baccalauréat professionnelle (diploma) (Perot, 1998). The government of France established Centres de formation d'apprentis under the Ministry of Education to control and support apprenticeship training programmes. Third strategy was running the apprenticeship training through training institutions, industries and Chambers of Commerce with the agreements of state or regional governments. (Centre INFFO 1999).

Nigeria traditional skills development was apprenticeship training model. With the introduction of TVET skills development at Yaba Technical Institute, the process of TVET skills development was changed from apprenticeship scheme to British formal training model which strictly demarcate grammar and TVET model (Uyanga, 1998). However, TVET apprenticeship skills training model was successful in Germany that produce highest youth employment which contributed to her economic development. The TVET apprenticeship model of Germany was copied by France, United Kingdom and other European countries (NCVER, 2002). Nigeria should learn from German Dual Training Model of School and industry and the failure of adopting the dual model of school and industry may likely contribute increments in the Nigeria poverty incidence as shown in Table

**Table 5:** Poverty Incidence of Nigerian Population from 1980-2014

Poverty Incidence in Nigeria	1980	1985	1992	1996	2004	2010	2011	2012	2013	2014
Percentage of Nigerian Citizens in Poverty	27.2	46.3	42.7	65.6	54.4	69	70.8	72.5	74.3	76.2
Number of Nigerian Citizens in Millions	65	75	91.5	102.3	126.3	163	167.1	171.4	174.5	178.9
Number of Poor Citizens in Millions	17.1	34.73	39.2	67.11	68.70	112.47	115.3	119.3	122.3	125.4

**Source:** National Bureau of Statistics, NBS, 2012; Bello and Roslan, 2010; KPMG International, 2014 and World Population, 2014.

Table 5 shows that the number of Nigerian citizens in poverty increases with the increase of total population of the country even though the percentage of the citizens in poverty in 1985 (46.3%) was higher than in 1992 (42.7%) where the actual number of the citizens in poverty in 1985 was 34.73 million which increased to 39.2 million in 1992. In 1980, the statistics describes that out of 65 million of Nigerian population 17.1 million (27%) were in poverty. The number increased in 2014 where out of 178.9 million population, 125.4 million (76.2%) were in poverty. It appeared that poverty has not reduced from 1980 to 2014 (Bello and Roslan, 2010; National Bureau of Statistics, NBS, 2012; KPMG International, 2014 and World Population, 2014).

The poverty in Nigeria has indeed assumed a crisis dimension. Records from the National Bureau of statistics show that 69% of Nigerians in 2010 which was projected to 76.2% by the KPMG International (2014) and World Population (2014) live below the poverty line. The data further reveal that only 50% of the population gain access to safe drinking water, while 38% cannot benefit themselves of primary health care. It is estimated that about 76.2% of Nigerians consume less than 1/3 of the minimum protein and vitamin intake due to low purchasing power. This statistics shows the very depth of poverty in Nigeria.

It also shows that poverty has not reduced in Nigeria after 30 years. The technical and vocational education established 30 years ago is expected to

reduced or totally eradicate poverty from the Nigerian citizens (FGN, 2004).It appeared that poverty has not reduced in Nigeria from 1980 to date and will likely increase in future (Bello and Roslan, 2010).

### IMPLICATIONS AND RECOMMENDATIONS

The implications of these findings include the review of Nigeria TVET model to incorporate best practices of TVET model for graduate employments and poverty alleviation. It is recommended that Nigeria TVET model should be incorporated with German Dual Model in the training package; should have strong collaboration between school and industry in policy like UK and to have good certification and industrial recognition like US. The personal qualities of hard work and cultural disciplines, honesty and dedication of Singapore, China and Japan should be considered to produce skilled, knowledgeable workers who are morally and ethically sound.

### CONCLUSION

The TVET apprenticeship and maintenance culture in the dual training model of school and industry of Germany was copied by France, United Kingdom and other European countries (NCVER, 2002) and therefore, Nigeria may likely learn from German Dual Training Model of School and industry which was neglected in Nigeria training package by adopting school based TVET model of America. Nigeria trained engineers at entry point lack attitude to handle engineering equipment and

tools and during teaching periods, Nigerian engineers were equipped commonly for design knowledge, skills and attitude as essential elements in US school based model and not maintenance knowledge, skills and attitude as mandatory skills for Nigerian industries. The absence of maintenance capability by Nigerian engineering graduates may likely contribute to their rate of unemployment and Nigeria poverty incidence (NBS, 2010). Singapore established her TVET model by teaching personal qualities of hard work, science and mathematics which may probable attributed to her trade and industry development. Likewise Japan and China established their TVET teaching package by accepting dual apprenticeship teaching package of Germany with the personal qualities which may likely enhance their economic development (NCVER, 2002). However, Nigeria neglected apprenticeship training system and personal qualities in her TVET model which may likely contributed to her percentage increase in poverty incidence (Uyanga, 1998).

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