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CULTURAL BARRIERS TO FEMALES ACCESSING TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) IN NIGERIA: REMEDIAL ROLES FOR NATIONAL BOARD FOR TECHNICAL EDUCATION (NBTE), KADUNA.

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ABSTRACT

This paper discusses the socio-cultural barriers that prevent females from enrolling in TVET and such includes the belief that males have greater innate technical capacity than females and are thus predisposed to excel at programs with Science, Technology, Engineering and Mathematics (STEM) backgrounds, social myths that TVET is a male reserved area, family and peer pressure for early marriage, etc. The paper opines that addressing them will widen access to TVET and enable females tap into its potentials to launch Nigeria as one of the strong economic countries in the world. It then advocates that, in today's Nigeria women are not less endowed in terms of technical knowledge and should be encouraged to succeed as major players in TVET fields. The paper then concludes that the National Board for Technical Education (NBTE) could play a major role in closing the culture induced gender gap being experienced in TVET.

Keywords: Cultural barrier, TVET, STEM and Gender gap.

Introduction

Carla Koppell (2013) USAID Senior Coordinator for Gender Equality and Women's Empowerment wrote an article referring to President Obama as saying "if a country is educating its girls, if women have equal rights that country is going to move forward. Education is a silver bullet for empowering women and girls worldwide." [2]The National Policy on education document showcases that, "education shall continue to be highly rated in the national development plans because education is the most important instrument of change; any fundamental change in the intellectual and social outlook of any society has to be preceded by educational revolution. An important aspect of education that has been identified and embraced by most nations as a veritable tool for achieving economic and

technological development is the TVET. [3] TVET is usually defined as the type of education that emphasizes the application of skills, knowledge and attitudes required for employment in a particular occupation or cluster of related occupations in any field of social and economic activity. Different terms (like Vocational Education (VE), Technical Education (TE), Technical-Vocational Education (TVE), Occupational Education (OE), Vocational Education and Training (VET), Professional and Vocational Education (PVE), Career and Technical Education (CTE), Workforce Education (WE) and Workplace Education (WE) are used to talk about it but we have chosen the term TVET because it is the one mostly used by international organizations like UNESCO. [4]This form of education is highly sought after by many nations today because of its potentials to equip its recipients with the technical and vocational skills to live and contribute effectively to the development of the society. TVET has fuelled phenomenal economic growth in some countries and fallen short of expectations in others, like Nigeria. [5]Estimated 80% of all occupations world- wide is TVET based. However, if you look around today, women are woefully underrepresented in technical and vocational Educational training and this has been trending from short term training graduates to diploma level education. It is said that when you educate a man, you educate an individual, but when you educate a woman you educate a nation. [6]Women alone constitute one-half of the world's population, do two-thirds of the world's work, earn one-tenth of the world's income and own one-hundredth of the world's property including land. Inspite of their overwhelming population in the world of work, [7]Women and girls are under-represented in Career and Technical Education (CTE) programmes that prepare students for careers in high-paying occupations like Science, Technology, Engineering and Mathematics (STEM), the skilled trades and other occupations traditionally done by men. [8]Women are sensitized on the availability and benefits of TVET, women meet the required entry qualifications and yet the uptake of women to TVET remains low. [9]The National Board for Technical Education (NBTE) in her 2008 publication captured the gloomy picture of females' low enrollments in technology based programmes as shown in Table 1.

Table 1: Student enrolment in Polytechnics by programme type and gender as at 2005

Programme Type	Male Students		Female Students		Total	
T echnology-based	115,717	34.0%	56,603	16.6%	172,320	50.6%
Non-Technology-based	90,795	26.7%	77,420	22.7%	168,215	49.4%
Total	206,512	60.6%	134,023	39.4%	340,535	100%

[10]Current data on students' enrollment in five selected TVET institutions in Ogun State, Nigeria on gender basis between 2013 and 2018 (Table 2) further revealed that females are under-represented. Generally, female students' enrollment was less than a quarter

of the total enrollment. Indeed, the enrollment was between 14.14% and 20.08% during the five-year period.

The problem of low female enrollment in TVET fields is not particular with Nigeria alone. The same story is presented even in developed nations. Part of the reason for low female enrollment in TVET arises from the fact that many women who should have made up for the shortfall in the ever growing TVET fields are either not interested or are variously discouraged by reprehensible values and cultures fuelled by the attitudes of parents and societies. [8]The attitudes parents and societies have about participation of women in TVET have become a stumbling block to the females' enrolment in technical and vocational education.

Table 2. Student Enrollment by Gender in TVET Institutions in Ogun State between 2013 and 2018

TVET Institution	Gender	Academic Session				
		2013/14	**2014/15**	**2015/16**	**2016/17**	**2017/18**
GTC, Ajegunle						
	Male	451(82.6)*	468(85.7)	513(88.6)	549(84.9)	559(84.8)
	Female	82(15.5)	78(14.3)	66(11.4)	98(15.1)	100(15.2)
GTC, Ijebu-ode						
	Male	186(77.5)	283(85.0)	283(88.7)	197(84.9)	243(86.5)
	Female	54(22.5)	50(15.0)	36(11.3)	35(15.1)	38(13.5)
GTC, Ijebu- igbo						
	Male	80(81.6)	46(86.8)	62(76.5)	38(58.5)	50(74.6)
	Female	18(18.4)	7(13.2)	19(23.5)	27(41.5)	17(25.4)
GTC, Idi-aba						
	Male	528(71.7)	529(71.8)	559(73.3)	567(71.3)	415(70.2)
	Female	208(28.3)	208(28.2)	204(26.7)	228(28.7)	176(29.8)
GVTC, Ijehun-titun						
	Male	75(97.3)	31(100)	18(100)	5(100)	34(97.1)
	Female	2(2.7)	0(0)	0(0)	0(0)	1(2.9)

*Figures in parenthesis denote percentages

Culture and TVET

[11]Culture is defined as a group-specific behavior that is acquired at least in part, from social influence considered to be the species typical unit.

[12]Culture is the characteristics (lifestyles) of a particular group of people, defined by everything from language, religion, cuisine, social habits, music, custom and arts acquired by man as a member of the group (society). Thus culture through the instrumentality of language (with ingrained anti-female proverbs), religion, social habits etc., influences the mindset of the members of society. Thus, by reason of cultural

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influences, girls tend to select subjects and professions that are more traditionally associated with female occupations, such as accounting, nursing, teaching or secretarial.

Nigeria cannot afford to trifle with the training of her own TVET talents or sacrifice professionalism on the altar of fruitless values and cultures that can only serve the narrow interests of few. [11,12]The concept of culture as group-specific behavior, lifestyles, way of living, or social habits affects TVET in Nigeria as suggested below:

(1) Gender Stereotypes: TVET (applied STEM) fields are often viewed as masculine, and teachers and parents often underestimate females' abilities from preschool. In some religious cultures courses and professions were chosen for women by the family, thus railroading the womenfolk into non TVET fields. This no doubt has contributed to the low enrolment of women into TVET and as a consequence robbed Nigeria of the talents that would have contributed to the growth of TVET related professions. [13]Historically, boys have outperformed girls in math, but in the past few decades the gender gap has narrowed, and today girls are doing as well as boys in math on average (see Fig. 1).

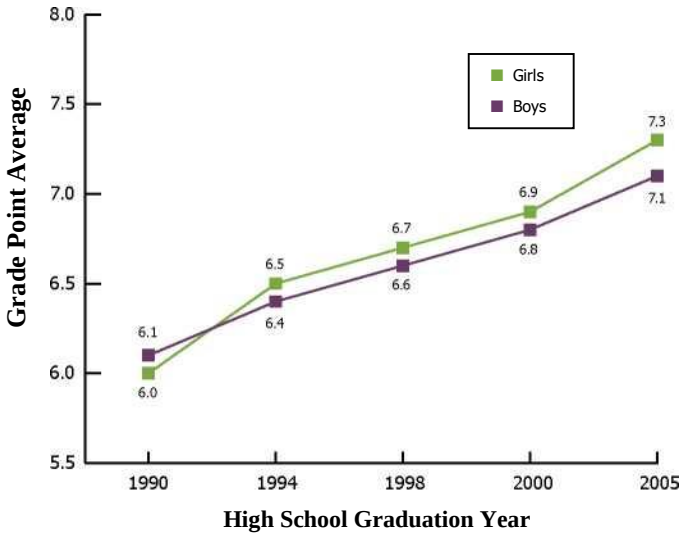


Figure 1. Grade Point Average in High School Mathematics and Science (Combined), by Gender, 1990–2005.

Source: U.S. Department of Education, National Center for Education Statistics, 2007

[14]In the past 50 y[illegible]le up 8 % of STEM workforce in record numbers, making their way into many fields previously dominated by men. Women have made substantial gains in many STEM disciplines. chemists in 1960 but accounted for 39 % of the chemistry workforce by 2013 (see Figure 2). In biology, women's representation increased from just over a quarter to just over

half of the workforce during this period. In engineering, women made up less than 1 percent of workers in 1960, growing to 12 percent of the workforce by 2013. This underscores the mantra that what a man can do a woman can do better; and thus debunks the erroneous thinking that TVET fields are the exclusive zones of men.

(2) Early marriage: Girls are usually overwhelmed with family and peer pressure to marry early and raise families, as women are assumed to be valued by the number of children they have. Practice of early marriage is further perpetuated by the fear of pregnancy before marriage, which parents consider as a disgrace and lowers the bride price. Girls are also lured into early marriage in some cultures by promise of economic incentives such as cattle and cash dowries. The practice of early marriage surely limits a female's chances of participating in TVET or STEM as she is preoccupied with raising a family thereafter. Male-dominated TVET or STEM workforce results in these fields perpetuating inflexible, exclusionary, male-dominated designs that are not supportive of women and minorities. [13]For instance, a predominantly male group of engineers tailored the first generation of automotive airbags to adult male bodies, resulting in avoidable deaths for women and children"

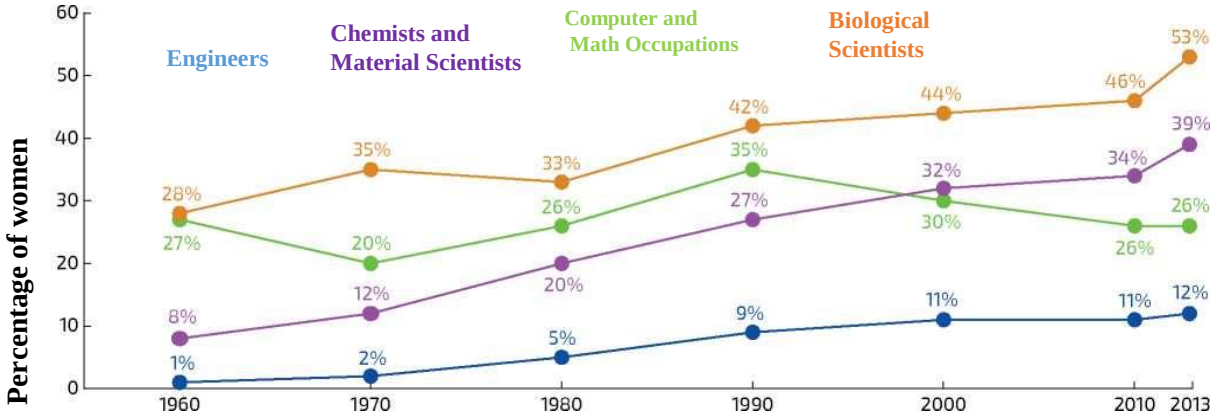


Figure 2. Women in Selected Stem Occupations, 1960–2013

(3) Male Inheritance: Families tend to invest in males for family continuity. The erroneous belief that the biological family does not benefit from educating a daughter, since the girl becomes a member of her husband's family when she marries, and they will reap the benefits, has made many families not to invest consciously in the education of their girls.

(4) Perception: There is apparent poor social acceptance of TVET in Nigeria generally. The situation is even worse in families with educated parents. [8]A study has shown that the higher the level of education of parents, the lower the enrollment of their female wards in TVET. Many educated parents believe that TVET was for the failures and poor families.

Closing the TVET Gap: NBTE's Role

Attracting and retaining more women in the TVET workforce will maximize innovation, creativity, and competitiveness. Experts have suggested various ways by which the cultural barriers to female participation in TVET can be discontinued. This paper suggests roles NBTE as an agent of the Federal government that coordinates all aspects of TVET has to play in this regard. These include:

i. **Allot more space to female TVET professionals in NBTE's activities:** More women in TVET should be involved in NBTE,s activities such as quality assurance and curriculum development activities. Their presence will inspire the girls in training and the girls will also see them as role models. A certain percentage of quality assurance team membership (say 35%) should be reserved for women professionals by way of affirmative action. Institutions can be encouraged to do same in terms of staff recruitment and admission into TVET/STEM programmes.

ii. **Relax the rigid academic culture:** Most TVET institutions operate rigid academic calendar that gives no room for different levels of certificates and variable entry times. Programmes that are purely skill based like Vocational/ Innovative Enterprise programmes were originally conceived to be modular or fragmented. The concept was to allow candidates come in for a particular skill at their own convenient time. This way, pregnant and nursing mothers can have enhanced opportunity to patronize TVET with less constraint.

iii. **Extend bursary incentives to females in TVET:** Recently the Federal government announced bursary allowances for Colleges of Education in addition to promise of jobs to the products of same. This certainly will attract more candidates to NCE/ B.Ed programmes. The Board can approach the governments at all levels to extend the same bursary incentives or any other form of incentive (like subsidized tuition) to female members of TVET institutions as a booster to attract more females in the ever unsaturated TVET sector.

iv. **Advocacy:** The zonal offices in their advocacy visits to TVET and traditional institutions should as a matter of primary assignment canvass for enrollment of more women in TVET programmes so that such women on graduation will be the ones to attend to fellow women in gender sensitive society like Northern Nigeria.

Conclusion

TVET workforce is working to solve some of the most vexing challenges of our time. Deliberate effort to include more women to this workforce will create a diverse workforce. With a more diverse workforce, scientific and technological products, services, and solutions are likely to be better designed and more likely to represent all users. This paper looked at cultures (other than ethno-cultural and traditional) that hinder TVET in Nigeria and globally. It shares the sentiment that the gender gap that has robbed women their place in TVET should be bridged. It is of the opinion that for TVET to make a head way in Nigeria, it must be shielded from religious, conventional action and socio-cultural influences that are inimical to its progress. Nigeria must act now to avoid further retrogression. A stitch in time they say saves nine.

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