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Empowering Female Undergraduates with Technical and Vocational Education Training Skills (TVETS) to Overcome Social Economic Challenges in Tertiary Institutions in Rivers State

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Abstract

This study, titled "Empowering Female Undergraduates with Technical and Vocational Education Training Skills (TVETS) to Overcome Socioeconomic Challenges in Nigeria," was prompted by the insufficient focus on women's education. The study was led by two research topics and formulated three null hypotheses. A descriptive survey research design was employed. The population consisted of 79 TVETS lecturers, and a census sampling technique was utilized. A questionnaire with four response alternatives was employed for data collection and evaluated by three specialists. The instrument's dependability was determined using Cronbach's alpha, resulting in coefficients of 0.80 and 0.81. The mean was employed to address the study issues, while one-way analysis of variance (ANOVA) and t-tests were utilized to evaluate the null hypotheses at a significance level of 0.05. The findings indicated that female undergraduates necessitate empowerment in technical and vocational education training skills to effectively surmount socioeconomic problems, and the imperative for such empowerment is significant. It was determined that if female undergraduates are sufficiently equipped with technical and vocational education training skills in tertiary institutions, they will attain the necessary employability skills to secure job, generate income, and address socio-economic concerns. It was advised that Nigeria should sufficiently finance TVETS to provide its female residents with lifetime, in-demand skills for the evolving workforce. Funding must be steady, maintained, and potentially derived from several sources beyond government handouts to ensure sustainable national growth.

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Keywords: Empowering, female undergraduates, technical and vocational education training skills, social economic challenges.

Introduction

Women's empowerment currently serves as a crucial metric for evaluating the extent and quality of substantial efforts aimed at addressing social and economic challenges. Efforts have been made to address the gender equality issue by acknowledging women's strength as a crucial tool for combating disease, alleviating poverty, and attaining genuine sustainable development.

Abiodun and Bukki (2018) asserted: "If a woman is to serve as a helpmate to a man, it is evident that the closer she is to the status of a man, the more effectively and harmoniously she will accomplish her role." Consequently, advanced practical entrepreneurship skills education for female students and women in Africa is essential. If sustained, such education will cultivate women into exemplary wives, devoted moms, and valuable members of society. “We are committed to advancing gender equality and empowering women as essential strategies to alleviate poverty and diseases and attain genuinely sustainable development.” There is a growing global concern regarding women's difficulties as victims of systemic sexism and the idea of male supremacy. Therefore, there is a necessity to empower female undergraduates with technical and vocational education and training skills (TVETS).

Technical and vocational education and training skills (TVETS) encompass the attainment of knowledge, abilities, and skills necessary for the evolving workplace (UNESCO-UNEVOC, 2019). TVETS encompasses a vast array of disciplines and educational methodologies. Education exists in three modalities: formal, informal, and non-formal. It enhances knowledge, abilities, and competencies from basic to advanced levels and influences individuals' perceptions on work and skills. TVETS, derived from public and private vocational schools and higher education institutions, enhances skills for employment, lifelong learning, innovation, and contributions to technological, socioeconomic, environmental, and human development (UNESCO-UNEVOC, 2019). Similarly, TVETS aims to provide a framework of teaching methodologies that prepare students for professional success and future endeavors. The advancement of skills and human resource strategies and policies designed to meet the varied requirements of both domestic and international labor markets may significantly benefit from TVETs. Regrettably, despite the

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presence of TVETS, Nigeria's national integrity appears to be significantly jeopardized after enduring prolonged challenges such as underdevelopment, environmental degradation, banditry, insurgency, poverty, unemployment, social and economic instability, insecurity, corruption, and malfeasance in leadership, among others (Igberaharha, 2021; Onwusa, 2021).

Moreover, low female enrolment, a deficiency of trained workers, deteriorating educational infrastructure, insufficient funding, understaffing, tenuous corporate partnerships, and an overall lack of quality have all plagued TVETs. Furthermore, conventional examinations are extensively employed for assessment across all educational domains, sometimes disregarding practical answers to corporate requirements for ongoing national development. The adverse conditions may have been affected by the perspectives articulated by Okoye and Okwelle (2013) and Onyesom and Ashibogwu (2013), who identified several challenges undermining the efficacy of TVETs, including insufficient funding, inadequate infrastructure, unreliable power supply, a dearth of qualified instructors and educators, inadequate supervision, lack of acknowledgement for higher qualifications in TVET programs, poor curriculum planning and execution, and a shortage of qualified TVET teachers (Ismail, Adnan, Masek, Hassan, Hashim & Ismail, 2018). Ms. Jayathma Wickramanayake, the UN youth envoy to Nigeria, consistently highlighted this global reality during her visit as a crucial strategy for achieving the fourth Sustainable Development Goal (This Day Live, 2018).

This Day Live (2018) posited that to mitigate unemployment, poverty, hunger, and violence, emphasis should shift from the notion that education is essential for "job seeking" to retraining individuals in technical and vocational education and training skills, thereby fostering self-reliance and wealth creation. Furthermore, as Nigeria's economy deteriorates due to its dependence on imports, attention must be focused on women's skill development programs. Developed nations such as the United States, Canada, Japan, China, and Germany have achieved remarkable advancements in industrialization, employment, and sustainable national development, attributable to their citizens' ongoing investment in and access to TVET skills (Okwelle & Deebom, 2017).

The National Commission for Colleges of Education (NCCE) supervises colleges of education, the National Universities Commission (NUC) exercises oversight over universities, and the National Board for Technical Education (NBTE) governs polytechnics (Ndukwe & Allen, 2018).

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Self-evaluation would be beneficial for government-established organizations that support TVETs and have developed the Minimum Academic Standards (MAS) as a benchmark for Quality Assurance and Institutional Self-assessment (QAIS) to ensure that TVET institutions meet expectations (Onyesom & Ashibogwu, 2013). Several domains that require enhancement for our female undergraduates to surmount socioeconomic barriers include, but are not confined to: Information and Communication Technology (ICT) (Software Development, Computer Operation, Networking, Web Design), Agricultural Competencies (Aquaculture, Poultry Farming, Swine Husbandry), and Domestic Skills (Fashion Design, Soap Production, Culinary Services) (Deebom & Zite, 2020). In light of the evolving labor market, TVET sectors such as waste management, electrical installation, welding and fabrication, fashion design, and veterinary services may provide employment opportunities for recent female graduates. The establishment of more TVET training centers, awareness initiatives, and scholarship programs are tactics that could facilitate the acquisition of TVET skills for employment (Deebom & Zite, 2020; Zite & Deebom, 2017).

This study aims to "empower female undergraduates in Nigeria to surmount social and economic challenges through technical and vocational education training skills (TVETS)." The necessity for female undergraduates to feel empowered to address social and economic issues, as well as the specific TVETS areas needed, was elucidated. This study is distinctive in comparison to others and paves the way for new research opportunities. The scope of this study was confined to TVET locations and the factors that should motivate female undergraduates to surmount challenges associated with their social and economic position. This study is on TVET lecturers, both male and female, employed at state and federal public tertiary institutions in Rivers State. They possess diverse levels of education and differing years of teaching experience. The moderating variables include years of teaching experience, years of education, and federal and state oversight of the institution. The institutions were owned by federal and state tertiary entities. Ukata and Silas-Dikibo (2023) assert that lecturers in federal universities may possess greater experience in providing female undergraduates with technical and vocational education and training skills (TVETS) to address challenges associated with social and economic empowerment compared to their state counterparts. The lecturer's level of education at the time of the inquiry serves as a moderating variable in educational achievement. The eligible qualifications may include: Doctor

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of Philosophy (PhD), Bachelor of Science (B.Sc.), Bachelor of Education (B.Ed.), Master of Science (M.Sc.), and Higher National Diploma (HND). The institutes were owned by the federal and state governments. TVETS are governed by federal and state authorities, which possess ownership of these tertiary institutions. The state institutions include Rivers State University (RSU), Ignatius Ajuru University of Education (IAUE), Kensaro Wiwa Polytechnic (KENPOLY), and Captain Elechi Amadi Polytechnic (CEAPOLY), whereas the federal institutions comprise the University of Port Harcourt (UNIPORT) and Federal College of Education (Technical) Omoku (FCET-Omoku).

These are the government-affiliated tertiary institutions that administer the TVETS program. The researchers selected these variables according to their probable influence on the subject matter. Lecturers at federal institutions may possess superior expertise compared to their counterparts at state tertiary institutions, potentially attributable to financing, training, or other variables. A PhD holder may possess superior qualifications compared to a Master of Science or Bachelor of Science in empowering female students with technical and vocational education training skills (TVETS) to surmount social and economic issues (Ukata, & Nmehielle, 2023; Ukata & Udeh, 2022). The duration of a lecturer's experience in teaching technical and vocational education training skills (TVETS) is quantified in years. Taiwo and Ade-Ajayi (2015) assert that teachers' educational backgrounds significantly influence the parameters believed to determine teaching and learning efficacy in any course. The notion that a teacher's educational experience may influence their subject-matter understanding, choice of tools, implementation of effective teaching strategies, and classroom management skills is supported by Taiwo and Ade-Ajayi (2015). To address social and economic challenges, the development of employable skills through TVETs is supported by institutional ownership, as stated by Top Education Degrees (2020). This is attributable to the likelihood that federal institutions provide superior staff development programs, employee-centric policies, resources, laboratories, incentive schemes, compensation packages, and employee-friendly rules compared to state institutions. Scholars (2013) assert that age and teaching experience are two factors influencing lecturers' competencies, as more experienced and younger lecturers generally exhibit superior performance compared to their less experienced and older counterparts. Consequently, these variables are pertinent to this investigation.

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Statement of the Problem

Worldwide, female education and women's workforce development initiatives are regarded as adaptable tools for revenue generation, job creation, bolstering national security, promoting rural transformation, and overcoming socioeconomic challenges. Consequently, Abiodun and Bukki (2018) argued that if a woman is to serve as a man's helpmate, it is evident that the closer she is to a man's circumstances, the more effectively and harmoniously she will do her duty. Therefore, it is essential that women in Africa and female students have high-quality education in authentic entrepreneurship skills. Should this form of schooling persist, women will evolve into exemplary moms, wives, and community members. Nigeria has regrettably not adopted the global push to provide female students with technical and vocational education training skills (TVETS) to address challenges associated with social and economic empowerment.

Alongside these and other socioeconomic issues, women seem to have predominantly confronted the Boko Haram group, armed banditry, abduction, civil unrest, delinquency, prostitution, early marriage, unemployment, and significant security obstacles. This study's issue is that Nigerian female learners and women, due to their high degrees of marginalization and neglect stemming from their gender traits, seem to have been more adversely affected by these social and economic challenges. The African practice of barring women from education, based on the expectation that they will marry and fulfil their educational roles in domestic settings, has resulted in considerable social and economic challenges for women. Moreover, there appears to be a lack of empirical research demonstrating how providing female undergraduates with technical and vocational education training skills (TVETS) may assist them in surmounting social and economic challenges. To tackle the dilemma of providing female students with technical and vocational education training skills (TVETS) to surmount socio-economic obstacles in Nigeria, it became necessary to present empirical data as a new line of research through this study.

Purpose of the Study

The purpose of this study was to determine empowering female undergraduates with technical and vocational education training skills (TVETS) to overcome social economic challenges in Nigeria. The specific of objectives of this study were to:

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1. Find out the areas of technical and vocational education training skills female undergraduates required to be empowered to overcome social economic challenges in Tertiary Institutions in Rivers State

2. Find out how empowering female undergraduates with technical and vocational education training skills curbs social economic challenges in Tertiary Institutions in Rivers State

Research Questions

The following two research questions guided the study:

1. What are the areas of technical and vocational education training skills female undergraduates required to be empowered to overcome social economic challenges in Tertiary Institutions in Rivers State?

2. How does empowering female undergraduates with technical and vocational education training skills assist to overcome social economic challenges in Tertiary Institutions in Rivers State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the lecturers' mean ratings on the areas of technical and vocational education training skills female undergraduates required to be empowered to overcome social economic challenges based on (PhD, M.Sc. /M.Ed., and B.Sc./B.Ed./HND).

2. Lecturers do not differ in their mean ratings on how empowering female undergraduates with technical and vocational education training skills can overcome social economic challenges based on institution ownership (federal and state).

3. Years of teaching experience (1-5, 6-10, and above 10 years) do not influence lecturers' mean ratings on the reasons for empowering female undergraduates with technical and vocational education training skills to overcome social economic challenges

Methodology

The study employed a descriptive survey research methodology to equip female undergraduates in postsecondary institutions in Rivers State with the technical and vocational education training skills (TVETS) necessary to surmount social and economic challenges. The study's population comprised 79 Business Education lecturers from six public tertiary institutions in Rivers State, which include three universities, two polytechnics, and one college of education offering Business

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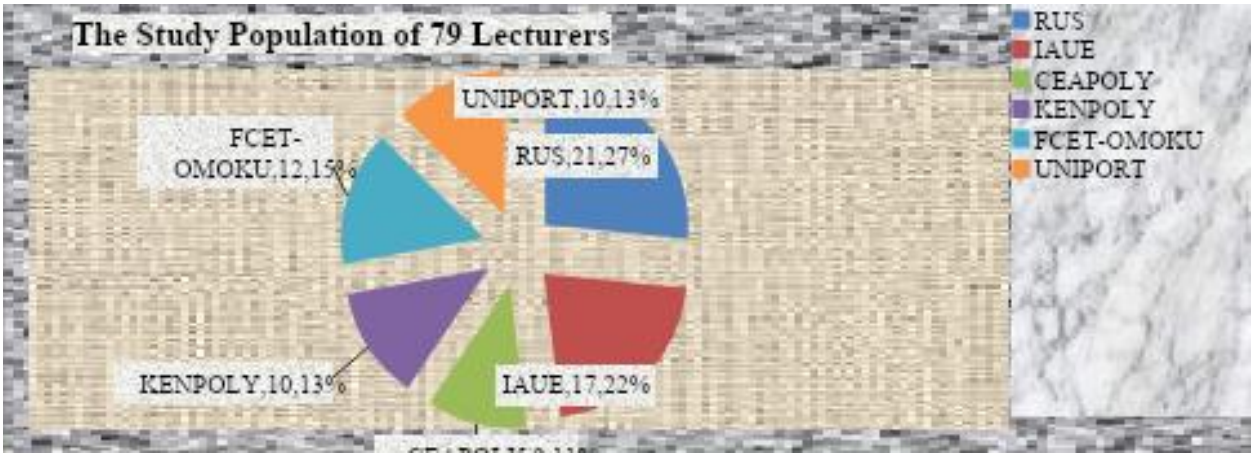
Education degrees. The population distribution is illustrated in three dimensions using an Exploded Pie chart, accompanied by corresponding percentages.



Source: (Researchers` creation, 2024)

Due to the adequate sample size of 79 lecturers, a census survey was employed to encompass all participants. A self-developed questionnaire featuring four response options, titled "Empowering Female Undergraduates with Technical and Vocational Education Training Skills to Overcome Socioeconomic Challenges (EFUT-VET-SOSEC)," was employed to collect data. The assessment employs a numerical limit range ranging from 4.50 to 500 for the highest level (3.50 to 4.49), middle level (2.50 to 3.49), and low level (1.50 to 2.49). It comprises two portions, with 58 items in section 1 and 41 items in section 2. Three specialists from the Faculty of Education at Nnamdi Azikiwe University, Awka, and Rivers State University conducted a face-to-face validation of the questionnaire's contents. The instrument's internal consistency and reliability were evaluated using twenty-five lecturers from the University of Uyo who were excluded from the study's sample. The reliability coefficient was determined using Cronbach's alpha, yielding values of 0.80 and 0.81. Nworgu (2015) posits that a research instrument is considered reliable if its reliability index is 0.70 or above; thus, this elevated reliability coefficient indicates that the instrument was trustworthy for the study. The researchers, aided by four well trained research assistants, individually distributed copies of the questionnaire to the respondents at their various schools. Before initiating the study, the researchers visited each institution and secured authorization from the relevant Heads of Department. Following their visits to each institution, the researchers and their assistants provided the department heads with the requisite number of copies of the instrument for distribution to the

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lecturers for completion. After five business days, the researchers returned to collect the completed copies. Seventy (70) copies of the instrument were accurately completed, collected, and utilized for data analysis.

The validation, reliability, management, and retrieval of the instrument required one month. To assess the homogeneity or diversity of respondents' viewpoints regarding the questionnaire items and the aggregated mean, the arithmetic mean and standard deviation were utilized to address the two research objectives. The independent sample t-test and one-way analysis of variance (ANOVA) were employed to evaluate the three null hypotheses at a significance level of 0.05. The ANOVA was employed for null hypotheses 1 and 3, as it assessed a single categorical independent variable with three levels. The independent sample t-test was employed to evaluate null hypothesis 2, which encompassed a single independent variable with two levels. If the computed significant (Sig.) value, or p-value, was more than or equal to (≥) the alpha value of 0.05, the null hypothesis was accepted. The null hypothesis was rejected in all other instances. The data were analyzed using Version 25 of the Statistical Package for Social Sciences (SPSS).

Results Presentation

Research Question 1: What are the areas of technical and vocational education training skills female undergraduates required to be empowered overcome social economic challenges?

Table 1: Respondents' mean ratings on areas of technical and vocational education training skills female undergraduates required to be empowered to overcome social economic challenges.

S/N	Areas of technical and vocational education training skills to overcome social economic challenges.	$\bar{x}$	SD	N = 70 Remarks
A	**Technical Skills**			
1	Electrical Installation	3.64	.88	High Level
2	Air Conditioning Repairs	3.67	.92	High Level
3	Refrigerator Repairs	3.75	.81	High Level

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4	Driving	3.76	.77	High Level
5	Building Technology	3.72	.85	High Level
6	Welding and Fabrication	3.56	.84	High Level
7	Electrical Instrumentation	3.57	.88	High Level
8	Furniture Making	3.64	.89	High Level
9	Pipe Fitting	3.55	.88	High Level
10	Aluminum Work	3.52	.83	High Level
11	Plumbing	3.63	.94	High Level
12	Arts/Printing & Graphics	3.58	.91	High Level
13	Electronics Repairs	3.75	.86	High Level
14	Interlocking	3.60	.88	High Level
15	Tilling	3.67	.92	High Level
16	Painting	3.75	.81	High Level
17	Vulcanizing	3.76	.78	High Level
18	Brick Laying & Masonry	3.72	.85	High Level
19	Carpentry & Joinery	3.56	.84	High Level
20	Shoe Making	3.57	.88	High Level
21	Tinkering	3.64	.89	High Level
22	Gold smitten	3.55	.88	High Level
B	**Agricultural Skills**			
23	Fish Farming/Aquaculture	3.53	.94	High Level
24	Horticulture	3.58	.91	High Level
25	Poultry Farming (Birds)	3.75	.77	High Level
26	Animal Husbandry	3.60	.88	High Level
27	Tomato Production	3.67	.92	High Level
28	Snail Production	3.75	.81	High Level
29	Veterinary Technology	3.74	.78	High Level
30	Animal Incarceration	3.72	.85	High Level
31	Livestock (Mammals)	3.56	.84	High Level

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32	Gardening	3.57	.88	High Level
33	Piggery	3.64	.89	High Level
34	Thatches making	3.75	.87	High Level
C	**Domestic Skills**			
35	Fashion Designing	3.78	.83	High Level
36	Soap Making	3.52	.94	High Level
37	Food/Catering Services	3.58	.91	High Level
38	Hair Styling/ (Barbing, Dressing)	3.75	.87	High Level
39	Bead Making	3.60	.88	High Level
41	Hat Making	3.67	.92	High Level
42	Tailoring	3.75	.81	High Level
43	Music	3.76	.78	High Level
44	Musical Instrumentation	3.72	.85	High Level
45	Photography	3.56	.84	High Level
46	Video Coverage	3.57	.88	High Level
47	Laundry/Dry Cleaning	3.64	.89	High Level
48	Net Making	3.55	.88	High Level
49	Cosmetology	3.67	.92	High Level
50	Leather works	3.75	.81	High Level
D	**Information and Communication Technology Skills**			
51	Software Design	3.63	.94	High Level
52	Computer Operation	3.58	.91	High Level
53	Computer Programming	3.75	.87	High Level
54	GSM Repairs	3.67	.92	High Level
55	Computer Repairs	3.75	.81	High Level
56	Networking	3.76	.78	High Level
57	Website Design	3.72	.85	High Level
58	Professional documents formatting	3.65	.83	High Level

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Aggregate Mean	**3.59**	**High Level**

Table 1: Researchers` Fieldwork, (2024)

The mean scores of the 58 items range from 3.52 to 3.78, as indicated by Table 1. This indicates high level. The overall mean score of 3.59 indicates that if female students received high-quality training in technical and vocational education, equipping them with the skills they will solve social and economic difficulties. The 58 mentioned items' standard deviations fell between 0.77 and 0.94, indicating that respondents' opinions were uniform.

Research Question 2: How does empowering female undergraduates with technical and vocational education training skills assist to overcome social economic challenges?

Table 2: Respondents' mean ratings on how empowering female undergraduates with technical and vocational education training skills assist to overcome social economic challenges.

S/N	How empowering female with TVETS overcome social economic challenges	$\bar{x}$	SD	N = 70 Remarks
1	Via preparing female to acquire skills for gainful jobs	4.60	0.85	Very high level
2	Through supplies skilled manpower for the economy	4.87	0.70	Very high level
3	Making individual to be self-reliant in various trades	4.70	0.78	Very high level
4	TVETS improves labor mobility	4.71	0.62	Very high level
5	Help to develop entrepreneurial skills	4.66	0.59	Very high level
6	It is a master key to poverty reduction	4.75	0.72	Very high level
7	It creates job opportunities	4.87	0.70	Very high level
8	It increases the technical performance of industries	4.71	0.68	Very high level
9	Provision of technical competent personnel	4.53	0.71	Very high level
10	Provision of good health	4.50	0.72	Very high level
11	Provision of good food	4.50	0.65	Very high level
12	Provision of shelter	4.67	0.71	Very high level
13	Provision of security	4.73	0.62	Very high level
14	Peace of mind	4.50	0.65	Very high level

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15	Peaceful co-existence	4.53	0.62	Very high level
16	Peace with the environment	4.67	0.85	Very high level
17	Economic stability	4.57	0.81	Very high level
18	Ability to socialize	4.50	0.69	Very high level
19	Be employable	4.83	0.75	Very high level
20	Become employer of labor	4.63	0.77	Very high level
21	Self-reliance	4.67	0.60	Very high level
22	Dependable livelihood	4.53	0.61	Very high level
23	Steady source of Income	4.63	0.62	Very high level
24	To contribute positively in community development	4.53	0.65	Very high level
25	Reduction in kidnapping	4.59	0.59	Very high level
26	Reduction in armed robbery	4.63	0.60	Very high level
27	Reduction in the rate of killings	4.53	0.67	Very high level
28	Diversion of youth's interest from crime	4.57	0.59	Very high level
29	Engaging youths in productive skills to reduce crimes	4.53	0.77	Very high level
30	Reduction in youths harassing urban and rural dwellers	4.71	0.58	Very high level
31	Reduction in cult activities	4.50	0.59	Very high level
32	Reduction in vandalization of properties by youth	4.54	0.59	Very high level
33	Reduction in number of political thugs	4.86	0.58	Very high level
34	Reduction in election crimes	4.73	0.64	Very high level
35	Reduces man hour waste of the security agencies	4.71	0.58	Very high level
36	Projects country`s image positively	4.63	0.60	Very high level
37	Economic stability of the nation	4.86	0.58	Very high level
38	Create wealth	4.73	0.62	Very high level
39	Tackle poverty alleviation	4.50	0.65	Very high level
40	Reduce weak economic growth and low productivity	4.53	0.62	Very high level
41	Bring social equality	4.67	0.85	Very high level

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Aggregate Mean	**4.68**	**Very high level**

Table 2: Researchers` Fieldwork, (2024)

According to Table 2, the mean scores of all 41 items range from 4.50 to 4.87, indicating a very high level of performance. In the same vein, the overall mean score of 4.68 indicates that there will be a very high degree of success in equipping female students with technical and vocational education training abilities to overcome social and economic issues. The range of standard deviations for the 41 stated items, from 0.58 to 0.85, indicates that the opinions of the respondents were consistent.

Testing of Hypotheses

Table 3: ANOVA summary on lecturers' mean ratings on areas of technical and vocational education training Skills necessary to be overcome social economic challenges based on (PhD, M.Sc. /M.Ed., and B.Sc./B.Ed./HND).

Sources of Variance	**Sum of Squares**	**Df**	**Mean Square**	**F-cal.**	**Sig.**	**Decision**
Between Groups	4.258	2	2.529	1.598	.593	Accept H_{O1}
Within Groups	55.357	68	.877			
Total	56.615	70				

Table 3: Researchers` Fieldwork, (2024)

At degrees of freedom of 2 and 68, Table 3 displays a computed F-value of 1.59 with a significant (sig.) p-value of 0.59, which is higher than the alpha value of 0.05 (0.59 > 0.05). Thus, it was decided to adopt the null hypothesis (HO1). This indicates that, when it comes to the technical and vocational education training abilities that female undergraduates can tackle social and economic issues, there is no discernible difference in the mean ratings given by lecturers depending on educational achievement.

Table 4: The t-test on how empowering female undergraduates with technical and vocational education training skills to overcome social economic challenges based on institution ownership (federal and state).

Ownership	**N**	**Mean**	**SD**	**Df**	**t-value**	**Sig.**	**Decision**

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State	50	3.86	.82	68	.94	.47	Accept H_{O2}
Federal	20	3.93	.81				

Table 1: Researchers` Fieldwork, (2024)

With 68 degrees of freedom, Table 4 displays a computed t-value of 0.94 with a significant (sig.) p-value of 0.47, exceeding the alpha value of 0.05 (0.47 > 0.05). As a result, the second null hypothesis was accepted. This indicates that, when it comes to empowering female undergraduates with training in technical and vocational education to solve social and economic difficulties based on institution ownership, the lecturers' mean evaluations did not differ.

Table 5: ANOVA summary on how (1-5, 6-10, and above 10 years) do not influence lecturers' mean ratings on the reasons for empowering female undergraduates with technical and vocational education training skills to overcome social economic challenges.

Sources of Variance	Sum of Squares	Df	Mean Square	F-cal.	Sig.	Decision
Between Groups	2.558	2	1.329	1.598	.493	Accept H_{O3}
Within Groups	45.357	68	.777			
Total	46.615	70				

Table 1: Researchers` Fieldwork, (2024)

At degrees of freedom of 2 and 68, Table 5 displays a computed F-value of 1.59 with a significant (sig.) p-value of 0.49, which is higher than the alpha value of 0.05 (0.49 > 0.05). Thus, it was decided to adopt the null hypothesis (HO3). This indicates that lecturers' mean assessments on the grounds for empowering female undergraduates with technical and vocational education training abilities to address social and economic obstacles were unaffected by their years of teaching experience.

Discussion of Findings

The study's findings indicated that female undergraduates possessing extensive training in technical and vocational education within the TVET sectors are equipped with the necessary tools to surmount social and economic challenges. The findings corroborate the perspectives articulated by Deebom and Zite (2020), Zite and Deebom (2017), Okoye and Okwelle (2013), among others, who identified the following categories of TVET areas as crucial for addressing social and economic challenges: Agricultural Skills (Fish Farming/Aquaculture, Poultry Farming, Piggery),

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Domestic Skills (Fashion Designing, Soap Making, Food/Catering Services), ICT (Software Design, Computer Operation, Website Design), Aquaculture, and others.

The study's findings indicated that significant empowerment of female undergraduates with technical and vocational education training abilities will help surmount social and economic barriers. The findings validate the assertions of Igberaharha (2021), Onwusa (2021), UNESCO-UNEVOC (2019), Okwelle, and Amaechi (2017), among others, that Technical and Vocational Education and Training (TVET) should be globally and nationally reinforced to enhance employable skills and foster socio-economic development, among other objectives. The cultivation of individuals' talents for lucrative employment, the provision of skilled labor for the economy, the generation of wealth, the elimination of poverty, the enhancement of entrepreneurial skills, the promotion of self-sufficiency, and the reduction of crime are additional factors. The study's findings indicated that, irrespective of educational qualifications, there is no significant difference in lecturers' average assessments of the technical and vocational education training abilities required by female undergraduates to achieve empowerment and address social and economic challenges. The findings aligned with the ideas proposed by Taiwo and Ade-Ajayi (2015), which indicated that lecturers' educational backgrounds could significantly influence the attributes deemed essential for effective teaching and learning. Taiwo and Ade-Ajayi (2015) asserted that a teacher's educational background influences their understanding of the subject, the resources they select, the factors affecting the teaching and learning environment, the implementation of effective instructional strategies, and the classroom management techniques they utilize. The study's findings indicated that lecturers' average evaluations of the ability of female undergraduates with technical and vocational education training to surmount social and economic challenges, contingent upon the ownership of the institution, are comparable.

The study supports This Day Live's (2018) hypothesis that to mitigate unemployment, poverty, hunger, and violence, there should be a reduced focus on education aimed at "job seeking" and an increased emphasis on providing female undergraduates with technical and vocational education training skills for "self-reliance, job, and wealth creation." Finally, the study's results indicated that the average judgements by lecturers on the rationale for equipping female undergraduates with technical and vocational education skills to surmount social and economic challenges were not influenced by their years of teaching experience. The findings challenge the assumption posited

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by Scholars (2013) that age and teaching experience significantly impact lecturers' instructional competencies, as younger and more experienced lecturers tend to perform at a higher level than their older and less experienced counterparts.

Conclusion

The results of the research revealed that female students require advanced technical and vocational education training abilities to effectively address socioeconomic difficulties, underscoring the necessity of these skills for this demographic. If female undergraduates in tertiary institutions are adequately prepared with technical and vocational education training skills, they will acquire the employability skills required to obtain employment, create wealth, and address social and economic challenges.

Recommendations

Based on the findings and conclusion of the study, the following recommendations were made:

1. Federal, state and local governments should sufficient fund TVETS in order to equip Nigerians, particularly female undergraduates, with highly demanding, lifelong skills for the rapidly evolving workforce. The financing for sustainable economic development should be steady, ongoing, and may originate from a variety of sources in addition to government handouts. The federal, state and local governments and organizations that oversee TVETS should routinely teach and retrain lecturers through conferences, workshops, and short courses. Instructors should also participate in internal, national, and local training through self-sponsorship, as the knowledge they gain will be their own. A balance should be struck between curricula's relevance to employers' current needs and their flexibility to adapt to the labor market's rapid changes. As a result, TVETS institutions should design their programmes around market demands and possibilities to address social and economic concerns. These courses must to offer market-based solutions and be adaptive to learners' capacities, flexible, and flexible.
2. To keep academic staff members in the field, TVETS institutions must provide them with competitive pay, excellent motivation, and both domestic and international training. To get skilled and seasoned workers into the field, TVETS institutions should offer their employees excellent working circumstances.
3. To accommodate the increasing number of female students who will be enrolled each year and to satisfy international standards, the physical infrastructures and facilities in the TVETS

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institutions now in place should be continuously renovated, updated, and expanded by federal, state and local government, including institutions running the programme through internally generated revenue.

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