



ENHANCING EMPLOYABILITY THROUGH VOCATIONAL AND TECHNICAL SKILL DEVELOPMENT AMONG YOUTHS AND ADULTS IN NIGERIA

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ABSTRACT

Purpose: This study aims to enhance employability through vocational and technical skill development among Nigerian youth and adults. The objectives were to identify the vocational and technical skills needs of Nigerian youth and adults, assess the effectiveness of existing programmes, and investigate the barriers to accessing vocational and technical training in Nigeria.

Design/Methodology/Approach: This study used a descriptive cross-sectional survey. To gather information on their vocational and technical skill needs and experiences, 100 Nigerian youths and adults were surveyed. Ten experts in the field of vocational and technical education in Nigeria conducted focus group discussions to elicit more information on the challenges and opportunities faced by the sector.

Research Limitation: It relies on self-reported data regarding training efficacy and skill, with limited exploration of the broader contextual factors influencing educational accessibility. Outcomes may not be generalised.

Findings: The results of the respondents' perceptions of the essentiality of vocational and technical skills in their employment showed that skills such as plumbing (3.97), tilling (4.15), automotive repair (4.29), etc., were efficient, with mean scores above 3.05. Communication and technology (ICT) and network marketing (2.27) were found to be less effective. The respondents identified a lack of job opportunities as the biggest challenge facing youth and adults in Nigeria and believed that the government should prioritise vocational and technical education. The study revealed that some of the programmes were often not aligned with the needs of the labour market.

Practical Implication: The government should prioritise vocational and technical education, especially in the ICT and Agro sectors.

Social Implication: Vocational and technical education can improve employability, increase productivity and reduce poverty.

Originality/Value: This study provides insights for improving employability among youth and adults by designing and delivering vocational and technical training programmes that meet labour market needs.

Keywords: *Adults. Employment. technical skills. vocational. youths*



INTRODUCTION

In Nigeria, where unemployment rates are high, developing vocational and technical skills is essential to enhance human capital. Research indicates that education focused on vocational and technical skills can significantly contribute to improving job prospects, enhancing productivity, and alleviating poverty (Vimbelo & Bayaga, 2024). Nigeria has a large and growing youth population, with over 40% of the population below 15 (National Population Commission, 2016).

Vocational and technical skills are practical skills that prepare individuals for specific careers and industries (Ababio et al., 2024). They focus on hands-on training and equip students with the expertise to succeed in a particular field. Vocational skills are typically more occupation-specific and focus on preparing youths and adults for a specific job or industry. In contrast, technical skills, on the other hand, are more focused on the technical aspects of a field and often require a strong foundation in such a field (Dincelli & Yayla, 2022). Recent technical and vocational skills include computer programming, networking and cybersecurity, medical laboratory technology, engineering, digital media production, manpower in the applied sciences, technical knowledge in technology, vocational skills for agricultural development, and commercial and economic development. Both vocational and technical skills are essential for preparing adults and youth in the workplace and providing them with the practical knowledge and expertise needed to succeed in their chosen careers.

Unemployment is a significant issue in Nigeria, particularly among young people and adults (World Bank, 2023b). Among Nigerians aged 15 to 34, 35% are jobless, available for work, and actively seek employment or work fewer than 20 hours per week. According to Virk et al. (2023), 28% of the younger workforce is considered underemployed, with work hours ranging from 20 to 39 per week. To address this challenge, developing vocational and technical skills has been recognised as a crucial approach to enhancing employability. However, concerns have been raised regarding Nigeria's quality and relevance of vocational and technical training programs.

This study aimed to improve employability by developing vocational and technical skills among Nigerian youth and adults. Its goals were to determine the vocational and technical skill requirements of young people and adults in Nigeria, evaluate the efficacy of current programs, and explore obstacles to accessing vocational and technical training in the country.

LITERATURE REVIEW

Technical and vocational education and training in the U.S. are education and training that provide the necessary knowledge and skills for employment (UNESCO, 2017). It uses many forms of education, including formal and informal learning, and is important for social equity, inclusivity, and development sustainability. Vocational and technical education (VTE) equips individuals with the essential practical skills necessary for employment and entrepreneurship, especially in

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developing nations like Nigeria. Studies have examined its significance, challenges, and implementation strategies, thereby establishing a comprehensive understanding of the current VTE landscape in Nigeria.

Vocational and technical education (VTE) promotes economic development and alleviates poverty. Research conducted by Adebisi (2014) and Virk et al. (2023) underscores the function of VTE in addressing skills deficits, particularly in labour markets marked by elevated youth unemployment rates. In Nigeria, where unemployment figures are alarmingly high, VTE presents a viable pathway for improving employability and encouraging self-sufficiency among youth and adults.

VTE programs offer practical training in various fields, including construction, mechanical engineering, information technology, and healthcare. Ajayi (2016) asserted that these competencies are vital for tackling Nigeria's economic issues, as they equip individuals to fulfill labour market requirements while contributing to key sectors such as agriculture, manufacturing, information, and communication technology (ICT). Incorporating VTE into national educational frameworks signifies its recognised importance in promoting sustainable development (World Bank, 2018).

Vocational and Technical Education (VTE) encounters numerous obstacles despite its promising potential in Nigeria. The disconnect between educational training programs and labour market requirements is a primary concern. Adebisi (2014) highlighted that outdated curricula, insufficient infrastructure, and a lack of engagement with industry stakeholders significantly hinder the effectiveness of vocational training initiatives. This observation aligns with the research conducted by Virk et al. (2023), which revealed that many vocational skills acquired by Nigerian youth are either irrelevant or inadequate for obtaining employment in emerging sectors.

Another significant challenge is gender disparity, as women are frequently underrepresented in the technical disciplines. Vimbelo and Bayaga (2024) contended that cultural norms and stereotypes contribute to this inequity, restricting women's access to technical education opportunities. Additionally, marginalised groups, such as individuals with disabilities and those from low-income backgrounds, encounter obstacles in accessing vocational training because of financial limitations and insufficient support systems (World Bank, 2023b).

Engagement with the private sector is essential for maintaining the relevance and efficacy of vocational and technical education (VTE) programmes (Varaprasad, 2022). Research conducted by Adebisi (2014) and Virk et al. (2023) highlights that partnerships between educational institutions and employers can effectively close the divide between academic training and employment opportunities. Such collaborations facilitate the creation of curricula aligned with

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industry needs, offer practical training experiences, and enhance graduates' job placement prospects.

Countries like Germany and South Korea exemplify successful dual-training systems that integrate classroom learning with practical experience in partnership with industry stakeholders (Pilz & Wiemann, 2021). Ajayi (2016) advocated for similar frameworks in Nigeria, suggesting that this could significantly improve the quality of vocational training while addressing the demands of the labour market.

Beyond equipping individuals with traditional employment, VTE promotes entrepreneurship and self-employment. Research by the World Bank (2018) and Vimbelo and Bayaga (2024) underscores the necessity for vocational programs to incorporate entrepreneurial competencies, including marketing, financial management, and business planning. These competencies empower graduates to establish enterprises, decrease their reliance on formal employment, and contribute to economic diversification.

However, many VTE programs in Nigeria still emphasise technical skills at the expense of entrepreneurial training. Adebisi (2014) pointed out that this limited focus constrains graduates' ability to adapt to evolving economic landscapes or pursue innovative ventures within the informal economy.

Global Best Practices and Lessons for Nigeria

Numerous countries present insightful examples to enhance Nigeria's vocational and technical education (VTE) effectiveness. For example, Rwanda has effectively utilised public-private partnerships to rejuvenate its vocational training framework (Tusiime et al., 2022). By engaging industry stakeholders in the development of curricula and the delivery of training, Rwanda has ensured that its VTE programs are closely aligned with the demands of the labour market (World Bank, 2023b).

South Korea's commitment to regularly updating its curriculum and incorporating emerging technologies into vocational training has established it as a global frontier in technical education. These instances underscore the necessity of adopting a flexible and inclusive strategy for VTE that addresses local challenges and incorporates best international practices.

Gaps in Literature

Despite the valuable insights provided by existing research regarding the challenges and potential of VTE, several significant gaps remain. There is a scarcity of studies focusing on the lived experiences of individuals participating in community-based vocational programs, particularly within the Nigerian context. There is a lack of exploration of how regional disparities, cultural

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attitudes, and socio-economic factors influence vocational training, access, and outcomes. This study aimed to address these gaps by investigating the perceptions and experiences of Nigerian youth and adults to identify barriers to access and opportunities for enhancement. This literature review offers a comprehensive synthesis of the current body of knowledge, emphasising the key themes and challenges of vocational and technical education. Please indicate whether additional references or specific areas of focus are required.

METHODOLOGY

This research was conducted in Nigeria to investigate the impact of vocational and technical education (VTE) on improving employability among youth and adults. Considering Nigeria's significant unemployment challenges and the vital role of VTE in mitigating this issue, this study aimed to offer empirical evidence regarding the effectiveness of current programs, the skills most pertinent to the job market, and the obstacles faced in accessing training opportunities.

Study Design

A descriptive cross-sectional survey was employed to gather the participants' experiences and perceptions of vocational and technical skill acquisition. This quantitative approach was enhanced by qualitative data obtained through focus group discussions (FGDs), facilitating a mixed-methods strategy that enabled an in-depth examination of the research aims.

Study Population and Sampling

This research focused on Nigerian youth and adults who were either engaged in or affected by VTE initiatives. A purposive sampling method was utilised to select 100 participants for the survey, ensuring a diverse representation based on their involvement in vocational training programs and varied socio-economic and demographic backgrounds. Ten vocational and technical education experts contributed to the FGDs, offering valuable insights into systemic challenges and potential opportunities.

Data Collection

Quantitative data were gathered using a structured questionnaire subjected to pilot testing to confirm its clarity and reliability. The questionnaire addressed various aspects, including the types of skills acquired, their relevance to employment opportunities, and obstacles encountered during training. Qualitative data were collected via semi-structured focus group discussions (FGDs), which included topics such as the relevance of the curriculum, challenges in access, and involvement of the private sector. Each discussion session lasted approximately 90 minutes and was audio-recorded with the consent of the participants to ensure the accuracy of the information collected.



Data Analysis

Quantitative data were analysed using descriptive statistics, including frequencies, percentages, and mean scores, to uncover significant trends and patterns. Qualitative data were analysed through thematic analysis, in which responses were systematically coded and organised into recurring themes. This analytical strategy allowed for the triangulation of findings from both quantitative and qualitative sources, thereby enriching our understanding of the study's objectives.

Ethical Considerations

The study adhered to ethical standards by obtaining informed consent from all participants. Participants were guaranteed confidentiality, and their data were anonymised to safeguard their identities. This ethical framework ensured the research was conducted with integrity and respect for participants' rights.

This comprehensive methodology enabled this study to yield valuable insights into the landscape of vocational and technical education in Nigeria and its potential role in mitigating youth unemployment and addressing economic challenges.

FINDINGS AND DISCUSSION

Socio-economic Characteristics of the Respondents

The majority (59%) of respondents were between 20 and 40 years of age. The mean age of respondents was 50 years. This indicates that the respondents were within the economically active age range. Regarding the gender distribution of the respondents, the results presented in Table 1 demonstrate that a higher percentage of vocational and technical education beneficiaries were male. At the same time, the remaining 33% were female. This suggests that most vocational and technical training programs do not represent gender equity across all groups and are not accessible to disadvantaged populations, such as women and individuals with disabilities.

Regarding educational attainment, 4% of the respondents had no formal education, whereas 96% had received formal education. Of those with formal education, approximately 11% had only attended primary schools, 50% had attended secondary schools, and approximately 35% had attended higher education institutions at various levels. The mean number of years of schooling was 8. The results indicated that 77% of the sampled respondents were single, and 10% were married. Additionally, 3% of the respondents were widowed, while 10% were divorced.

Table 1: Frequency Distribution of the Respondents by their Socio-economic Characteristics

Personal Characteristics	Frequency	Percentage (%)	Mean
Gender			
Male	67	67	



Female	33	33	
Age			50
20-30	30	30	
31-40	29	29	
41-50	35	35	
51 and above	6	6	
Marital status			
Married	10	10	
Single	77	77	
Divorced	10	10	
Widowed	3	3	
Educational level			
No formal education	4	4	
Primary school	11	11	
Secondary school	50	50	
NCE/OND	35	35	
Average year of education			8

Types of Vocational and Technical Skills Identified by the Respondents.

This section deals with the types of vocational and technical skills identified by the respondents. The skills were grouped into the following: construction, mechanical, electrical, beauty and wellness, creative, information, communication and technology, agriculture and animal husbandry, entrepreneurship and management, healthcare, and culinary skills. The respondents identified masonry (20%), carpentry (13%), electrical work (19%), plumbing (35%), and tilling (28%). The respondents identified the following vocational and technical skills as mechanical and electrical skills: automotive repair (49%), welding (22%), machining (54%), HVAC (35%), electrical installation (37%), and repair (34%). Under beauty and wellness, hairdressing (19%), cosmetology (10%), makeup artistry (27%), and nail technology (6%), while under creative skills, graphic (14%), fashion (45%), photography (26%), and videography (22%) were identified by the respondents. Skills under information, communication, and technology (ICT) were computer hardware repair (43%), software development (29%), networking (5), and cybersecurity (21%). The respondents identified crop production (15%), animal breeding (23%), fisheries (16%), poultry (14%), and small businesses (27%) under agriculture and animal husbandry skills, while marketing (16%), accounting (4%), and financial management under entrepreneurship and business management skills, respectively. Finally, nursing, medical laboratory technology (8%), pharmacy technicians (6%), dental technology (3%), cooking (18%), baking (45%), and catering (31%) under healthcare and culinary skills were identified as seen in Table 2.



Table 2: Types of Vocational and Technical Skills Needs Identified by the Respondents

	VOCATIONAL/TECHNICAL SKILLS	Frequency	(%)	
1	Construction Skills	• Masonry	20	20
		• Carpentry	13	13
		• Electrical work	19	19
		• Plumbing	35	35
		• Tilling.	28	28
2.	Mechanical Skills	• Automotive repair	49	9
		• Welding	22	22
		• Machining	54	4
		• HVAC (heating, ventilation, and air condition).	35	5
3	Electrical skills	• Electrical installation	37	37
		• Electrical repair	34	34
4.	Beauty and Wellness	• Hairdressing	19	19
		• Cosmetology	10	10
		• Makeup artistry	27	27
		• Nail Technology	6	6
5.	Creative Skills	• Graphic design	14	14
		• Fashion	45	45
		• Photography	26	26
		• Videography	22	22
6.	Information And Communication Technology (ICT)	• Computer hardware repair	43	43
		• Software development	49	49
		• Networking	5	5
		• Cybersecurity	21	21
7.	Agriculture And Animal Husbandry Skills	• Crop production		
		• Animal breeding	15	15
		• Fisheries	23	23



	• Poultry	16	16
	• Small business	14	14
		27	27
	• Marketing		
	• Accounting		
8. Entrepreneurship And Business Management Skills	• Financial Management.	9	9
		4	4
		3	3
9. Healthcare Skills	• Nursing		
	• Medical Laboratory technology		
	• Pharmacy technician	25	25
	• Dental technology		
		8	8
		6	6
		3	3
10. Culinary Skills	• Cooking		
	• Baking	3	3
	• Catering		
		18	18
		45	45
		31	31

Field survey, 2024

Vocational and Technical Skills Essentiality for Employment from the Respondents

The information elicited from the respondents on vocational and technical essentiality for employment revealed that 55% agreed that the skills received were paramount to their job sectors, while 45% disagreed on the essentiality of the skills acquired in their current job (Table 3).

Table 3: Vocational and Technical Skills Essentiality for Employment from the Respondents

Respondents	Frequency	Percentage (%)
Yes	55	55
No	45	45

Field survey, 2024

Respondents' perceptions of prioritised vocational and technical skills essential for employability.

To ascertain the respondents' perceptions of the essentiality of vocational and technical skills, the level of effectiveness of the skills in employment was examined, as shown in Table 4. A 5-point

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Likert scale was used, with an upper limit cut of 3.05 and a lower limit cut of 2.95. Scores above 3.05 were considered very effective, any score below 2.95 was considered ineffective, and those between 2.95 and 3.05 were equally considered effective.

The primary objective of this section was to ascertain how youth and adults conceptualise employability, and the respondents were requested to provide a definition. As previously noted, the significance of these self-reported data lies in their utility for evaluating the level of engagement with and perceived value of employability skills to the respondents and further elucidating the emphasis placed on these vocational and technical employability skills.

The following skills were very effective for respondents with a mean score of not less than 3.05 (i.e. $MS \geq 3.05$), namely, under construction skills, plumbing (3.97), and tilling (4.15), while carpentry (2.56) was ineffective. Mechanical skills include automotive repair (4.29), welding (3.82), machining and heating, ventilation, and air conditioning (3.55). All electrical skills showed that they effectively enhanced employability among youths and adults. In beauty and wellness, not all skills are too effective. This can be deduced from the fact that these skills are not high-tech skills needed in the current job sector. Regarding healthcare skills, pharmacy technicians (1.75) and technology (1.29) were ineffective. This may result from the negligence of these important skills while prioritising vocational and technical skills by the providers of such training (both private and public service providers). Employers and the private sector should be engaged in designing and delivering training programs to meet labour market needs.

Lastly, communication and technology (ICT) and network marketing (2.27) were less effective. This can be deduced from the Nigerian unbelief system in network businesses. Entrepreneurship and self-employment skills should be emphasised in vocational and technical training programs to encourage innovation and job creation.

Table 4: Mean and Standard Deviation of the Extent of Effectiveness of Prioritized Vocational and Technical Education Skills

	VOCATIONAL/TECHNICAL	SKILLS	MEAN	S. D
1	Construction Skills	• Masonry	3.03	1.06
		• Carpentry	2.56	.833
		• Electrical work	4.76	.429
		• Plumbing	3.97	.223
		• Tilling.	4.15	1.52
2.	Mechanical Skills	• Automotive repair	4.29	1.37
		• Welding	3.82	.386
		• Machining	3.76	.653
		• HVAC (heating, ventilation,	3.55	1.07



		and air condition).		
3	Electrical Skills	<ul style="list-style-type: none"> • Electrical installation • Electrical repair 	3.49 3.38	.927 1.02
4.	Beauty and Wellness	<ul style="list-style-type: none"> • Hairdressing • Cosmetology • Makeup artistry • Nail Technology 	2.73 2.81 2.66 1.87	.446 .394 .669 .734
5.	Creative Skills	<ul style="list-style-type: none"> • Graphic design • Fashion • Photography • Videography 	4.33 4.01 4.38	1.06 .759 1.45
6.	Information And Communication Technology (ICT)	<ul style="list-style-type: none"> • Computer hardware repair • Software development • Networking • Cybersecurity 	4.54 4.5 2.27 4.29	.846 1.12 .963 1.34
7.	Agriculture and Animal Husbandry Skills	<ul style="list-style-type: none"> • Crop production • Animal breeding • Fisheries • Poultry • Small business 	3.8 2.91 2.92 3.61 2.86	1.154 .553 .677 1.02 1.42
8.	Entrepreneurship and Business Management Skills	<ul style="list-style-type: none"> • Marketing • Accounting • Financial Management. 	1.96 2.47	.803 .797
9.	Healthcare Skills	<ul style="list-style-type: none"> • Nursing • Medical Laboratory technology • Pharmacy technician • Dental technology 	2.23 3.53 3.08 1.75	.897 1.11 .991 1.31



10. Culinary Skills		1.29	.456
	• Cooking		
	• Baking		
	• Catering		
		2.96	.863
		3.4	.752
		3.97	1.15

Source, Field Work 2024

Challenges Encountered in Vocational and Technical Skills Education

This section deals with the challenges faced by vocational and technical skills in Nigeria. 74% of the respondents revealed a lack of standardisation and quality control, while 69% mentioned a lack of engagement with the private sector as a significant challenge. 62% of the respondents identified inadequate resources and infrastructure, whereas 55% had limited access to training for low-income individuals. Negative societal perceptions of vocational and technical training and difficulty keeping pace with rapid technological advancement were identified by 20% and 46% of the respondents, respectively, as challenges faced by vocational and technical skills in the study area.

Table 5: Challenges Encountered in Vocational and Technical Skills Education

Respondents	Frequency	Percentage (%)
Lack of standardization and quality control	74	74
Lack of engagement with private sectors	69	69

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Outdated Curriculum	40	40
Inadequate resources and infrastructure	62	62
Limited access to training for low-income individuals	55	55
Negative societal perception of vocational and technical training	20	20
Difficult keeping pace with rapid technological advancements	46	46

Field Survey, 2024

Thematic Analysis of Focus Group Data

Qualitative data from focus group discussions (FGDs) were analysed using thematic analysis to identify key patterns and insights. Three main themes emerged from the data: accessibility, curriculum and quality concerns, and societal perceptions. These themes highlight the challenges faced by Nigerian youth and adults in accessing and benefiting from vocational and technical education (VTE). Table 6 summarises the themes, subthemes, and illustrative quotes.

Table 6: Summary of Thematic Analysis from Focus Group Discussions

Theme	Sub-Themes	Description	Illustrative Quotes
Accessibility Issues	Financial Barriers - Geographic Disparities	Financial obstacles and disparities in accessing training facilities pose significant hurdles.	<i>“The location of most training facilities in urban centers creates accessibility challenges for youth from rural areas. Additionally, training programs are often prohibitively expensive for individuals from lower-income backgrounds.”</i>
Curriculum and Quality	Outdated Curriculum - Lack of Private-Sector Engagement	Training programs that fail to align with modern labour market demands and limited employer involvement in design.	<i>“The curriculum is outdated and doesn’t cover skills like coding or cybersecurity, which are needed today.” “Employers are not part of the training process.”</i>
Societal Perceptions	Stigma - Gender Biases	Negative societal attitudes toward VTE and cultural norms restrict women’s participation in technical fields.	<i>Many believe that vocational education is intended for students who struggle academically. Additionally, most training facilities are predominantly occupied by males, causing female participants to experience discomfort and a sense of not belonging.</i>

Field Survey, 2024.

The research identified considerable obstacles to accessing vocational and technical education. Financial limitations emerged as a primary issue, particularly affecting low-income individuals who struggled to pay associated fees. Geographic inequalities exacerbated the situation, as training facilities were predominantly in urban regions, leaving rural populations with limited access.

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These observations are consistent with Adebisi's (2014) analysis of disparities within Nigeria's vocational and technical educational (VTE) framework.

Participants expressed concerns regarding the obsolescence of many vocational programs, which often do not align with current labour market demands. Lack of engagement from the private sector significantly contributed to the disconnection between training offerings and employment requirements. This finding resonates with the work of Virk et al. (2023), who called for enhanced collaboration between employers and educational institutions to ensure that training remains relevant and effective.

Participants highlighted that negative societal perceptions of vocational education represent a considerable barrier to enrollment. The stigma surrounding VTE was particularly pronounced among women, which discouraged their participation (Adams & Baddianaah, 2023). Cultural norms further intensified gender biases, restricting women's opportunities in technical fields. These insights corroborate the views of Vimbelo and Bayaga (2024), who advocate public awareness initiatives aimed at reshaping vocational careers. The thematic analysis emphasises the necessity for focused interventions to tackle access barriers, enhance curriculum quality, and transform societal attitudes toward vocational and technical education. By addressing these issues, policymakers and stakeholders can improve the efficacy of the VTE programme and engage Nigerian youth and adults in the labour market.

Discussion

The results of this study offer an in-depth understanding of the current landscape of vocational and technical education (VTE) in Nigeria, particularly its impact on improving employability for youth and adults. The data indicate significant discrepancies in the alignment of vocational training programs with the demands of the labour market, obstacles to accessibility, and uneven distribution of essential skill sets. The existing literature corroborates and challenges these findings and provides a complex view of the sector's challenges and potential.

A notable segment of the respondents (55%) acknowledged that the skills they acquired were pertinent to their current jobs, while 45% disagreed. This divergence underscores the disconnect between vocational training curricula and the actual needs of the labour market. Adebisi (2014) noted that numerous VTE programs in Nigeria are outdated and do not adequately respond to the evolving job market, especially in information and communication technology (ICT) and healthcare.

The emergence of Information and Communication Technology (ICT) has changed the process of imparting and acquiring knowledge. Electronic learning (e-learning), a by-product of ICT, has changed many aspects of life and opened many opportunities for people. One challenge that faces

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the profession and practice of vocational and technical education (VTE), and indeed the whole of mankind, is the progress and innovation offered by technological developments since the 1990s (Enang & Okute, 2019). Globally, there has been a paradigm shift from the traditional approach of teacher-centred learning to modern methods, where ICT plays a significant role; hence, VTE cannot be exempted. To avoid being left behind, there is a need to think, create, work, and collaborate with new ideas and techniques to integrate ICT use into the VTE process properly.

In this study, skills related to healthcare, such as those of pharmacy technicians (mean = 1.75) and technology (mean = 1.29), were deemed ineffective, highlighting the oversight of these vital sectors.

This disconnect is further reinforced by the findings of Virk et al. (2023), who emphasise the limited relevance of vocational skills in emerging industries, particularly those that require technological proficiency. Conversely, skills such as plumbing (mean = 3.97), tiling (mean = 4.15), and automotive repair (mean = 4.29) were highly effective. These results support the idea that traditional technical skills continue to hold greater value in Nigeria's labour market, as posited by Ajayi (2016).

The research revealed a significant gender imbalance, with male respondents accounting for 67% of the total, whereas female respondents accounted for only 33%. This disparity mirrors the wider societal prejudices that hinder women's engagement in technical disciplines. Investigations by Vimbelo and Bayaga (2024) indicated that entrenched cultural norms and insufficient support for women in predominantly male sectors sustain this inequality. To mitigate this issue, it is essential to implement specific measures, such as scholarships and mentorship initiatives aimed at women, as the World Bank (2018) advocates.

A significant portion of respondents, 62%, identified insufficient resources and infrastructure as a primary challenge, while 55% cited limited accessibility for those from economically disadvantaged backgrounds as a key issue. These results align with the findings of Adebisi (2014), who noted that chronic underfunding and substandard infrastructure are widespread challenges within Nigeria's vocational and technical education (VTE) sector. The absence of adequate facilities not only diminishes the quality of training but also disproportionately affects marginalised communities, thereby reinforcing socio-economic disparities.

The survey revealed that 69% of participants indicated insufficient involvement from the private sector, highlighting a gap between educational institutions and potential employers. This problem has been widely addressed in existing research. Virk et al. (2023) contended that the success of vocational training programs hinges on the participation of industry stakeholders in maintaining curriculum relevance and supporting job placement initiatives. The findings of this study advocate

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for a more proactive engagement of employers and the private sector in the formulation and execution of vocational and technical education (VTE) programmes.

Most respondents (74%) identified the absence of standardisation and quality assurance as a significant concern. This observation is consistent with Ajayi's (2016) findings, which emphasise that the lack of standardised curricula and effective quality control measures hinders the overall impact of VTE programs. Countries like Germany and South Korea have effectively tackled these challenges by adopting dual-training systems that combine theoretical education with practical industry experience, thereby presenting a viable model for Nigeria.

Although traditional technical skills received high ratings, there was a notable lack of emphasis on entrepreneurial skills and self-employment. For instance, marketing (mean = 2.27) and financial management (mean = 2.91) are regarded as less effective. This observation underscores a significant deficiency in Nigeria's vocational and technical education (VTE) programs, which tend to prioritise technical skills over entrepreneurial and business acumen. Adebisi (2014) and the World Bank (2023b) recommend incorporating entrepreneurship training into VTE curricula to promote innovation and job creation, especially in resource-limited settings.

Twenty percent of the respondents identified negative societal perceptions as barriers to vocational training. This stigma, which regards VTE as inferior to formal academic education, has been extensively examined in literature (Vimbelo & Bayaga, 2024). Altering this perception requires public awareness initiatives and policies to enhance the status of vocational training.

46% of the respondents reported challenges adapting to technological advancements as a significant obstacle. This finding is consistent with global trends and agrees with the International Labour Organization & Flanders State of Art (2022), which emphasises the importance of regularly updating curricula to keep pace with rapid technological developments. Programs that concentrate on emerging sectors such as software development, cybersecurity, and renewable energy could significantly improve the relevance of VTE in Nigeria.

CONCLUSION

The findings suggest that vocational and technical skill development is critical for improving employability among Nigerian youth and adults. However, the study also highlights the sector's significant challenges, including a lack of standardization and quality control, limited engagement with the private sector, and inadequate resources and infrastructure.

Given these results, universities should reallocate their resources. Instead of focusing on classroom-based programs to develop technical and vocational employability skills, they should

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increase work-based training and employer participation in courses. This shift could positively impact the job market prospects of young people and adults.

Policy Implications

The results underscore the need for focused policy measures to address the identified challenges. For example, augmenting financial resources for infrastructure enhancement, involving private sector participants, and incorporating entrepreneurial competencies into vocational and technical education (VTE) curricula could markedly improve the effectiveness of these programs. Nations such as Rwanda have illustrated the efficacy of these strategies, successfully utilising public-private partnerships to rejuvenate their vocational training frameworks.

This study adds to the expanding literature on VTE and provides practical recommendations for policymakers, educators, and relevant stakeholders in Nigeria. By addressing the identified deficiencies and aligning educational programs with the demands of the labour market, Nigeria can fully harness the potential of vocational training to foster economic empowerment and alleviate poverty.

Recommendations

Based on these findings, the study recommends that the government prioritise vocational and technical education and allocate sufficient funding and resources to the sector. Vocational and technical training programs should be standardised and subjected to quality control measures to ensure their relevance and effectiveness. Employers and the private sector must participate in designing and implementing training programs to ensure alignment with labour market demands. Vocational and technical training programs should emphasise entrepreneurship and self-employment skills to foster innovation and job creation.

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