



EVALUATING THE EFFECTS OF SDG INITIATIVES ON TECHNICAL SKILLS ACQUISITION AND TRAINING OUTCOMES IN GWAGWALADA, NIGERIA

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ABSTRACT: This study evaluates the effects of Sustainable Development Goal (SDG) initiatives on technical skills acquisition and training outcomes in Gwagwalada, FCT Abuja. Grounded in Human Capital Theory, the research employs a mixed-methods design, integrating quantitative surveys of 100 participants with qualitative focus group discussions to assess how SDG 4 and SDG 8 programs influence employability and poverty reduction. Findings reveal that while respondents recognize the effectiveness of these initiatives in improving technical competencies (Mean = 4.13) and increasing personal income (Mean = 3.93), significant structural barriers persist. Specifically, participants highlighted inadequate access to training materials and equipment (Mean = 3.46) as a primary constraint to program effectiveness. Qualitative data further identified a lack of post-training support, including insufficient funding and the absence of start-up kits, which limits the transition from skill acquisition to sustainable entrepreneurship. The study concludes that while SDG-driven vocational training successfully aligns with local economic needs, its long-term impact on poverty alleviation depends on strengthening institutional resource allocation and establishing robust microcredit and mentorship frameworks for graduates.

Keywords: SDGs, Technical Skills Acquisition, Vocational Training, Human Capital and Poverty Reduction.

Introduction

The adoption of the United Nations' Sustainable Development Goals (SDGs) in 2015 marked a significant global commitment to addressing multidimensional challenges such as poverty, inequality, and unemployment through inclusive and sustainable development strategies. Among the 17 goals, SDG 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth) are particularly relevant to technical skills acquisition and vocational training. These goals emphasize the need to promote lifelong learning opportunities and equip individuals with relevant technical and vocational competencies required for employment, decent jobs, and entrepreneurship (United Nations, 2015). In developing countries like Nigeria, where youth unemployment remains a persistent issue, the alignment of national development strategies with SDG targets has become increasingly critical.

Technical and vocational education and training (TVET) is widely recognized as a strategic tool for enhancing human capital development and reducing unemployment. According to UNESCO (2020), effective TVET systems play a vital role in bridging the gap between education and labor market demands by providing practical and industry-relevant skills. In Nigeria, government and development partners have increasingly integrated SDG-driven initiatives into training programs to improve technical skills acquisition among youths and vulnerable populations. However, despite these efforts, concerns persist regarding the effectiveness, accessibility, and quality of such programs in achieving desired outcomes (Okolie et al., 2020).

The Federal Capital Territory, particularly Gwagwalada, represents a unique socio-economic context for examining the implementation and impact of SDG initiatives on skills development. Gwagwalada hosts a mix of urban and semi-rural populations, with a growing

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number of youths seeking employment opportunities. Various government agencies, non-governmental organizations, and international development partners have introduced SDG-aligned training programs aimed at enhancing employability and entrepreneurship in the area. Despite these interventions, there is limited empirical evidence on how these initiatives translate into tangible technical competencies and improved training outcomes at the local level (Adebayo & Ojo, 2019).

Furthermore, the effectiveness of SDG initiatives in promoting technical skills acquisition is influenced by several contextual factors, including funding, infrastructure, curriculum relevance, and institutional capacity. Studies have shown that inadequate training facilities, outdated equipment, and insufficient industry collaboration often hinder the success of vocational training programs in Nigeria (Ekpenyong & Edokpolor, 2015; Dada et al., 2025). Additionally, issues such as low awareness of SDG programs, socio-cultural barriers, and limited monitoring and evaluation frameworks further constrain the achievement of intended outcomes (Ogunleye, 2017; Magaji et al., 2025a; Ajibola et al., 2025). These challenges underscore the need for localized assessments of SDG-driven interventions to better understand their actual impact.

Against this backdrop, this study seeks to evaluate the effects of SDG initiatives on technical skills acquisition and training outcomes in Gwagwalada, FCT Abuja. By examining the extent to which these initiatives contribute to skill development, employment readiness, and overall training effectiveness, the study aims to provide evidence-based insights that can inform policy formulation and program improvement. Ultimately, the findings are expected to contribute to the broader discourse on sustainable development and human capital advancement in Nigeria and similar developing contexts.

Literature Review and Theoretical Framework

Conceptual Review

SDG Initiatives

Sustainable Development Goals (SDG) initiatives refer to structured policies, programs, and interventions designed to achieve the targets set under the global 2030 Agenda adopted by the United Nations. These initiatives span sectors such as education, employment, health, and economic development, with particular emphasis on

SDG 4 and SDG 8, which directly support skills development and job creation. SDG initiatives in developing countries like Nigeria often involve collaborations between government agencies, international organizations, and non-governmental bodies to promote inclusive access to quality education and vocational training. These interventions include capacity-building programs, youth empowerment schemes, entrepreneurship development, and funding for technical education institutions. According to United Nations (2015), SDG initiatives are designed to ensure that no one is left behind by addressing systemic inequalities and promoting sustainable livelihoods (Mansur et al., 2025). However, the effectiveness of such initiatives depends largely on implementation strategies, monitoring mechanisms, and contextual adaptability (Sachs et al., 2019).

Technical Skills Acquisition

Technical skills acquisition refers to the process through which individuals develop practical competencies, knowledge, and abilities required to perform specific tasks in various trades, professions, or industries. This concept is central to Technical and Vocational Education and Training (TVET), which emphasizes hands-on learning and industry-relevant expertise. Institutions such as UNESCO advocate for strengthening technical skills acquisition as a pathway to employment, innovation, and economic growth (UNESCO, 2020). In the Nigerian context, technical skills acquisition is seen as a viable strategy for reducing youth unemployment and fostering self-reliance, especially among school leavers and marginalized populations. The process typically involves formal education, apprenticeships, on-the-job training, and informal learning systems. However, challenges such as inadequate infrastructure, outdated curricula, and limited industry linkage often constrain the effectiveness of skills acquisition programs (Okolie et al., 2020). Consequently, aligning technical training with labor market demands remains essential for maximizing its socio-economic impact.

Training Outcomes

Training outcomes refer to the measurable results or impacts of educational and vocational training programs on participants' knowledge, skills, attitudes, and



employability. These outcomes are often evaluated in terms of skill proficiency, job placement rates, productivity improvements, and entrepreneurial capabilities (Magaji et al., 2025b). Effective training outcomes are indicative of well-designed curricula, qualified instructors, and adequate training resources. According to Kirkpatrick and Kirkpatrick (2006) and Eke et al. (2020), training outcomes can be assessed across multiple levels, including reaction, learning, behavior, and results, providing a comprehensive framework for evaluation. In the context of SDG-driven interventions, training outcomes also encompass broader developmental impacts such as poverty reduction, social inclusion, and economic empowerment. However, in many developing regions, including Nigeria, weak monitoring and evaluation systems often limit the accurate measurement of these outcomes (Ogunleye, 2017). Therefore, improving assessment frameworks and ensuring continuous feedback mechanisms are critical for enhancing the effectiveness and sustainability of training programs.

Theoretical Review

Human Capital Theory

Human Capital Theory, originally developed by Theodore Schultz (1961) and further advanced by Gary Becker (1964). The theory posits that investment in education, training, and skill development enhances individuals' productive capacities, thereby increasing their employability, income potential, and overall economic contribution. In the context of evaluating SDG initiatives on technical skills acquisition and training outcomes, Human Capital Theory provides a robust analytical lens by emphasizing that programs aligned with SDG 4 and SDG 8 serve as critical investments in human development. These initiatives, when effectively implemented, improve the quality and relevance of technical and vocational education, leading to better training outcomes such as enhanced competencies and labor market integration. However, the theory also implies that the returns on such investments depend on the quality, accessibility, and alignment of training with market demands, which remains a challenge in developing economies like Nigeria (Becker, 1993; Schultz, 1961). Thus, Human Capital Theory underpins this study by linking SDG-driven interventions to

measurable improvements in skills acquisition and economic productivity.

Empirical Review

Amakoromo et al. (2024) examined poverty reduction programs in Nigeria and identified critical barriers undermining the attainment of the Sustainable Development Goals. The study revealed that poverty levels continue to rise despite multiple intervention efforts, largely due to entrenched structural challenges such as corruption, mounting public debt, high youth unemployment, overdependence on oil revenues, weak political will, and persistent ethno-religious conflicts. The authors argued that without first addressing these deep-rooted systemic issues, poverty alleviation initiatives are unlikely to yield meaningful or sustainable outcomes, thereby limiting progress toward broader development objectives.

Utuk (2022) explored the relationship between poverty and sustainable economic development, emphasizing that poverty reduction remains a central indicator of development performance. The study found that poverty significantly constrains sustainable development in Nigeria by restricting access to essential resources and opportunities needed to improve living standards. It further highlighted that unsustainable exploitation of natural resources both contributes to and is exacerbated by poverty, creating a cyclical relationship between environmental degradation and economic deprivation. The study concluded that policy responses should prioritize environmental sustainability alongside poverty reduction strategies to achieve long-term development goals.

Yao et al. (2023) investigated the interactions among the Sustainable Development Goals, focusing on the trade-offs and synergies influenced by poverty in a less-developed region of China. Using the SDG Index and the Multidimensional Poverty Index, the study demonstrated that while most SDGs exhibit synergistic relationships, certain goals—particularly those related to responsible consumption, climate action, and life on land—experience trade-offs. The findings also showed that poverty acts as a significant constraint, weakening synergies and intensifying trade-offs among goals, with varying effects across different population groups. The authors suggested that integrated and context-specific



policy frameworks are necessary to optimize SDG implementation in underdeveloped regions.

Yanni and Jinghong (2022) conducted a bibliometric analysis of global research on poverty alleviation, identifying key trends and patterns in the field. Their findings indicated a substantial increase in scholarly output since the adoption of the Sustainable Development Goals in 2015, reflecting growing global attention to poverty issues. The study also revealed disparities in research contributions across countries, with nations such as China and Kenya differing in both volume and quality of publications. Additionally, disciplinary differences were observed, as economic studies tend to focus on inequality and growth, while environmental research emphasizes conservation and resource management. The authors highlighted the need for greater interdisciplinary integration and collaboration to enhance the effectiveness of poverty reduction research.

Ominyi and Abubakar (2024) analyzed the nexus between poverty alleviation and sustainable development in Nigeria using time-series data from 1986 to 2018 obtained from World Bank indicators. Employing the Vector Error Correction Model (VECM) and drawing on theoretical insights from Oscar Lewis's individual deficiency perspective, the study found that key socio-economic variables such as per capita income, life expectancy, literacy rate, and GDP growth significantly contribute to poverty reduction, albeit with relatively low elasticity. The results also indicated a stable long-run equilibrium relationship among the variables, supported by a strong explanatory power of the model. The study recommended a more comprehensive and inclusive policy approach to effectively address poverty dynamics.

Aliyu et al. (2024) assessed the impact of Sustainable Development Goals initiatives on poverty reduction in Minna Metropolis, Niger State, Nigeria, using a survey design and quantitative analytical techniques. The study, which sampled 406 respondents through convenience sampling, found that SDG-related factors such as peace, security, and quality education have a positive but relatively modest effect on poverty alleviation. Despite the presence of these initiatives, poverty remains prevalent, suggesting that existing interventions may not be sufficiently robust or effectively implemented to

achieve substantial outcomes. The authors emphasized the need for strengthening institutional frameworks and improving program delivery mechanisms.

Onesme et al. (2024) conducted a comprehensive bibliometric and scientometric review of poverty alleviation strategies for sustainable development, covering literature published between 1981 and 2023. Drawing on data from the Scopus database and employing tools such as R-Studio and VOSviewer, the study identified significant growth in research output, particularly after 2000, with a peak observed in 2022. The analysis highlighted the dominance of countries like China, the United States, and the United Kingdom in scholarly contributions, as well as the influence of leading authors in the field. The findings underscore the evolving nature of poverty alleviation research and point to the need for continued innovation and global collaboration in advancing sustainable development strategies.

Gap in Literature

A critical examination of the reviewed empirical studies reveals a clear research gap in terms of contextual focus, thematic alignment, and methodological orientation. Most of the studies concentrate broadly on poverty alleviation and sustainable development at national or international levels, with limited attention to sector-specific outcomes such as technical skills acquisition and training effectiveness. For instance, studies conducted in Nigeria largely emphasize macroeconomic indicators, environmental sustainability, or general poverty reduction without explicitly linking Sustainable Development Goals initiatives to measurable training outcomes or skill development processes. Similarly, international studies, including those in China, focus on SDG trade-offs and synergies or bibliometric trends, thereby overlooking localized, practice-based evaluations of development interventions. Furthermore, there is a paucity of empirical evidence at the sub-national level, particularly in areas such as Gwagwalada, where socio-economic dynamics may significantly influence program effectiveness. Methodologically, many studies rely on secondary data or broad analytical models, with limited use of micro-level primary data to assess individual skill acquisition outcomes. Consequently, this study seeks to bridge these gaps by



providing a localized, empirical assessment of how SDG-driven initiatives influence technical skills acquisition and training outcomes, thereby contributing to both policy and academic discourse.

Methodology

Research Design

This study adopts a mixed-methods research design to provide a comprehensive evaluation of the effects of Sustainable Development Goals (SDG) initiatives on technical skills acquisition and training outcomes in Gwagwalada Area Council, Federal Capital Territory, Abuja. The design integrates both quantitative and qualitative approaches to enable a robust analysis of measurable outcomes and contextual experiences of beneficiaries. Specifically, a sequential explanatory design is employed, where quantitative data are first collected and analyzed to establish patterns and relationships, followed by qualitative data collection to deepen interpretation and provide contextual explanations of the statistical findings. This approach is appropriate for understanding how SDG-driven training programmes influence skills acquisition, employability, and training effectiveness. The design is exploratory in nature, focusing on examining the structure, implementation strategies, and perceived effectiveness of SDG-related technical training programmes through the perspectives of beneficiaries, training facilitators, government officials, and implementing partners.

Study Area

The study is conducted in Gwagwalada Area Council, one of the six area councils of the Federal Capital Territory (FCT), Abuja, Gwagwalada. Gwagwalada covers approximately 1,043 km² and is strategically located along the Abuja–Lokoja expressway, about 55 km from the Abuja city centre. The area lies within latitudes 8°49'N to 9°04'N and longitudes 6°50'E to 7°06'E. It is characterized by a tropical savannah climate with distinct wet and dry seasons, and an average annual rainfall of about 1,120–1,500 mm. The population is culturally diverse, comprising indigenous groups such as Gwari, Bassa, and Hausa-Fulani, alongside migrants engaged in various socio-economic activities. The local economy is driven by agriculture, small-scale industries, trade, construction, and services, all of which create

demand for technical and vocational skills. Importantly, the area has benefited from past development interventions under both MDG and SDG frameworks, including WASH projects, livelihood support programmes, agricultural training, and youth empowerment initiatives. These interventions provide a relevant context for assessing how SDG-driven technical training initiatives have influenced skills development and training outcomes in the area.

Population of the Study

The population of the study comprises residents of Gwagwalada Area Council who were present during the period of SDG programme implementation (2023–2025), particularly individuals who have participated in or benefited from technical skills acquisition and vocational training initiatives. The population also includes key stakeholders involved in programme delivery, such as SDG implementation officers, vocational training facilitators, NGO representatives, and community leaders. The estimated population of Gwagwalada ranges between 500,000 and 560,000 based on recent demographic projections, with a significant proportion being youths engaged in informal or semi-formal economic activities. The study population is therefore categorized into beneficiaries of SDG technical training programmes and institutional actors responsible for planning and implementation, ensuring a balanced representation of both demand and supply-side perspectives of skills development interventions.

Determination of Sample Size

The sample size for this study is determined using Cochran's (1977) formula for large populations to ensure statistical reliability and generalizability of findings. At a 95% confidence level ($Z = 1.96$), proportion ($p = 0.5$), and margin of error ($e = 0.05$), the initial sample size is calculated as 384 respondents. Where the population is finite, the finite population correction formula is applied to adjust the sample size appropriately. To account for possible non-response, an additional 10% is added to the computed sample size. Consequently, the final sample is proportionally distributed across selected wards using a multistage sampling technique. For qualitative data, purposive sampling is used to select 10–20 key



informants, including trainers, programme managers, and community stakeholders, while focus group discussions are conducted among selected beneficiary groups to obtain in-depth insights into training outcomes and skills acquisition experiences.

Questionnaire

The primary data collection instrument is a structured questionnaire designed to obtain quantitative and qualitative information on SDG-related technical training and skills acquisition outcomes. The questionnaire is divided into five sections. Section A captures socio-demographic characteristics such as age, gender, education, occupation, and household size. Section B examines respondents' awareness of SDG technical training initiatives. Section C assesses participation in vocational and skills acquisition programmes. Section D measures perceived training outcomes, including employability, competency development, income improvement, and entrepreneurial skills. Section E identifies challenges affecting the effectiveness of SDG training programmes, such as inadequate infrastructure, limited access, and poor coordination. Responses are measured using a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1), enabling quantitative analysis of perceptions and experiences.

Validity and Reliability Test

To ensure the accuracy and consistency of the research instrument, both validity and reliability tests were conducted. Content and face validity were established through expert review by three specialists in vocational education, measurement and evaluation, and development studies. Their assessment focused on clarity, relevance, and adequacy of questionnaire items in capturing SDG-related technical skills acquisition and training outcomes. Necessary revisions were made to improve instrument quality. Reliability was tested using a pilot study involving 20 respondents from a similar population outside the main study area. Data obtained from the pilot test were analyzed using Cronbach's Alpha, with a threshold of 0.70 considered acceptable for internal consistency. The results confirmed that the instrument was reliable for the study, with all sections

demonstrating satisfactory reliability levels for academic research.

Model Specification

This study adopts a multiple linear regression model to examine the effect of SDG initiatives on technical skills acquisition and training outcomes in Gwagwalada. The model is grounded in human capital logic, which assumes that training and skills development improve individual productivity and employability. The dependent variable is training outcomes, while the independent variables include awareness of SDG programmes, participation in training, and accessibility of training opportunities. The econometric model is specified as:

$$TO_i = \beta_0 + \beta_1 AW_i + \beta_2 PT_i + \beta_3 AC_i + \beta_4 X_i + \epsilon_i$$

Where:

TO = Training Outcomes

AW = Awareness of SDG initiatives

PT = Participation in training programmes

AC = Accessibility of training opportunities

X = Socio-demographic variables (age, education, gender, occupation)

β_0 = Intercept

$\beta_1 - \beta_4$ = Coefficients

ϵ = Error term

The model allows estimation of the magnitude and direction of the relationship between SDG initiatives and technical skills development while controlling for socio-demographic influences.

Nature and Sources of Data

The study utilizes primary and secondary data sources. Primary data are collected through structured questionnaires administered to SDG training beneficiaries and stakeholders in Gwagwalada. The data focus on awareness, participation, skill acquisition experiences, and training outcomes. Secondary data are obtained from government reports, United Nations Development Programme publications, academic journals, and reports from NGOs involved in vocational training and SDG implementation. The combination of both data sources ensures triangulation, enhancing the validity and reliability of findings while providing both empirical and contextual perspectives on SDG training interventions.



Method of Data Analysis

Data collected are analyzed using both descriptive and inferential statistical techniques. Descriptive statistics such as frequency distribution, percentages, mean, and standard deviation are used to summarize respondents' demographic characteristics and perceptions of SDG training programmes. Inferential statistics, including Pearson correlation and multiple regression analysis, are used to test hypotheses and determine the relationship between SDG initiatives and training outcomes. All analyses are conducted using SPSS version 25, and results are presented in tables and charts for clarity and interpretation. Qualitative data from interviews and focus groups are analyzed thematically to complement quantitative findings and provide deeper insights into training effectiveness and skills acquisition outcomes.

Data Presentation, Analysis and Interpretation

This section presents the findings of the study based on the data collected from respondents. It includes the presentation of socio-demographic characteristics, analysis of the awareness, participation, and perceived impact of SDG programmes, as well as the challenges faced in their implementation. Both descriptive and inferential statistical methods were used to analyze the data. The demographic profile of respondents provides insight into the socio-economic characteristics of the population studied. Variables analyzed include age, gender, educational level, occupation, household size, and income level. This section helps to contextualize the responses and identify patterns that may influence the impact of SDG programmes.

Qualitative Analysis (Focus Group Discussion – 30 Items)

Section 1: Effects of SDG on Technical Skills Acquisition and Training

Participants highlighted various technical and vocational programmes such as tailoring, ICT, catering, carpentry, and agribusiness training targeted at youths and women. Some had participated directly, while others were aware of such initiatives. Respondents agreed that these programmes have enhanced employability and small-scale entrepreneurship. However, they mentioned challenges such as inadequate funding, lack of start-up

kits, limited access to training centers, and poor follow-up support.

SDG-related skills training are effective but under-supported. The findings imply that long-term poverty reduction requires structured post-training support systems, continuous mentorship, and microcredit access for trained individuals.

Technical skills acquisition and training are crucial for addressing youth unemployment, enhancing productivity, and reducing poverty. The Sustainable Development Goals (SDGs) provide a global framework to improve access to education and skills development, especially for women and youths, thereby promoting sustainable livelihoods and economic growth (UNDP, 2019).

SDG 4, which emphasizes inclusive and equitable quality education, directly supports the establishment and improvement of vocational and technical training programs. Through SDG-aligned initiatives, governments and development partners have developed technical colleges, skill acquisition centers, and vocational training institutes that equip individuals with practical skills necessary for employment (World Bank, 2022). These programs empower youths and women to engage in income-generating activities, improving their employability and reducing dependence on informal or subsistence jobs.

Skills acquisition under SDG initiatives often includes entrepreneurship training, business management, and financial literacy. SDG 8, which focuses on decent work and economic growth, encourages the creation of self-employment opportunities through vocational skills training (ILO, 2021). By equipping youths with marketable technical skills, SDG programs enhance their capacity to start small businesses, engage in technical trades, and participate in the formal labor market, contributing to poverty reduction.

High youth unemployment is a major challenge in many developing countries. SDG-targeted skills acquisition programs reduce this challenge by aligning training with labor market demands. For instance, technical training in construction, ICT, agriculture, and renewable energy sectors provides youths with practical competencies that increase their employability (UNESCO, 2020). These efforts support sustainable development by ensuring that



trained individuals can secure decent jobs or generate self-employment opportunities.

SDG 5 (Gender Equality) emphasizes the inclusion of women and girls in education and skills training. Technical skills programs under SDG frameworks have prioritized women's participation, enabling them to engage in traditionally male-dominated sectors such as ICT, engineering, and entrepreneurship (UN Women, 2020). Inclusion of women in skills development enhances household income, promotes economic empowerment, and contributes to community-wide poverty alleviation.

SDG-aligned programs encourage innovative training methods, including digital literacy, coding, and modern manufacturing techniques. These initiatives strengthen technical competence, making trainees adaptable to rapidly changing industries and global economic trends (UNDP, 2019). Enhanced technical skills also promote productivity and efficiency, which are essential for

sustainable development and poverty reduction. The SDGs have significantly influenced technical skills acquisition and training by promoting vocational education, entrepreneurship, youth employment, and gender inclusion. These programs equip individuals, especially women and youths, with practical and marketable skills, thereby enhancing employability, supporting income generation, and contributing to poverty ALLEVIATION. Effective implementation of SDG-aligned skills development programs is therefore critical for sustainable economic growth and social empowerment.

Quantitative Analysis

1. Strongly Agree (SA) = 5
2. Agree (A) = 4
3. Undecided (U) = 3
4. Disagree (D) = 2
5. Strongly Disagree (SD) = 1

Table 4.1: SDG and Technical Skills Acquisition (n = 100)

Item	Mean	Interpretation
SDG promotes technical training for women and youths	4.13	Agree
Skills acquisition improves income	3.93	Agree
Training meets local economic needs	3.87	Agree
Access to materials/equipment is adequate	3.46	Slightly Agree
Technical education contributes to poverty reduction	4.05	Agree

Source: Field Survey, 2026

SDG promotes technical training for women and youths (Mean = 4.13, Agree): Respondents agree that SDG initiatives actively provide technical and vocational training opportunities for women and youths. This indicates that SDG programmes are recognized as important avenues for building employable skills and reducing economic vulnerability.

Skills acquisition improves income (Mean = 3.93, Agree): Participants perceive that acquiring technical skills through SDG programmes positively affects their income and livelihood. This demonstrates that the training contributes to financial empowerment, though the mean suggests that some participants may experience limited or variable economic benefits.

Training meets local economic needs (Mean = 3.87, Agree): Respondents agree that the technical training provided under SDG programmes is relevant to the local job market and economic opportunities. This implies that

skills are practical and applicable, enhancing employability, but there may still be gaps in fully matching training to market demands.

Access to materials/equipment is adequate (Mean = 3.46, Slightly Agree): Participants slightly agree that materials and equipment are sufficient during training. The lower mean indicates that resource constraints—such as insufficient tools, machines, or training materials—may limit the effectiveness of technical skills programmes.

Technical education contributes to poverty reduction (Mean = 4.05, Agree): Respondents agree that technical education and skills acquisition under SDG programmes contribute to reducing poverty in their communities. This underscores the role of skills training as a sustainable mechanism for economic empowerment and poverty alleviation.

The data shows that SDG-supported technical and vocational training is effective in improving skills,



employability, and income among women and youths. However, limited access to materials and equipment poses a challenge, suggesting the need for better resource allocation. Overall, the programmes are positively impacting poverty reduction by equipping beneficiaries with relevant skills that enhance economic opportunities.

Discussion of Findings

The findings of this study suggest that Sustainable Development Goals (SDG) initiatives in Gwagwalada have a positive impact on technical skills acquisition and economic empowerment. Quantitative data reveals that respondents generally agree that these programs promote technical training for women and youths (Mean = 4.13) and contribute significantly to poverty reduction (Mean = 4.05). Participants reported that acquiring these skills improves their income and livelihoods, indicating that the training successfully enhances financial empowerment and productivity. Qualitative insights from focus groups support this, highlighting that vocational programs in areas like ICT, tailoring, and agribusiness have improved employability and fostered small-scale entrepreneurship within the local community.

The study also confirms that the technical training provided is largely relevant to the local economic context. Respondents agreed that the programs meet local economic needs (Mean = 3.87), implying that the skills taught are practical and applicable to the regional job market. By aligning training with sectors such as construction, agriculture, and renewable energy, these initiatives help bridge the gap between education and labor market demands. Furthermore, the findings underscore the importance of inclusion, as SDG frameworks have prioritized the participation of women and girls, enabling them to enter traditionally male-dominated sectors and improve overall household income.

Despite these successes, several critical barriers hinder the full effectiveness of the initiatives. The lowest quantitative score was related to the adequacy of materials and equipment (Mean = 3.46), suggesting that resource constraints like insufficient tools and outdated machinery limit the quality of the training. Qualitative feedback further identified inadequate funding, a lack of start-up kits for graduates, and poor post-training follow-

up support as major obstacles. Consequently, the study concludes that for these programs to yield sustainable, long-term poverty reduction, they must be supported by structured mentorship, continuous monitoring, and better access to microcredit for trained individuals.

Conclusion and Recommendations

The study concludes that Sustainable Development Goals (SDG) initiatives in Gwagwalada have significantly improved technical skills acquisition, particularly among youth and women. Quantitative findings demonstrate that these programs are recognized for enhancing employability and reducing economic vulnerability, with participants reporting a direct positive correlation between training and income improvement. While the technical training is largely relevant to local economic needs, its ultimate success is currently limited by systemic resource constraints—most notably a lack of adequate training materials and equipment. These findings highlight that while the SDG framework provides a vital foundation for human capital development, the transition from skill acquisition to sustainable poverty reduction is not automatic and requires more robust institutional support.

To enhance the effectiveness of these initiatives, it is recommended that government and development partners prioritize the modernization of training facilities and the provision of adequate learning materials. Beyond the training phase, the study suggests that a structured post-training support system must be established, including the provision of start-up kits and improved access to microcredit to help beneficiaries launch small-scale businesses. Additionally, implementing agencies should strengthen monitoring and evaluation frameworks to ensure that training curricula remain aligned with evolving labor market demands and that graduates receive continuous mentorship. By addressing these logistical and financial gaps, SDG-driven programs can more effectively bridge the gap between education and decent work in Nigeria's developing context.

References

Adebayo, A. A., & Ojo, O. J. (2019). Vocational education and youth employment in Nigeria:



- Issues and challenges. *Journal of Technical Education and Training*, 11(2), 45–56.
- Ajibola, L. R., Magaji, S., & Musa, I. (2025). Assessing the effectiveness of regulatory frameworks in enhancing stakeholder collaboration for sustainable procurement practices in Nigeria. *ISA Journal of Business, Economics and Management (ISAJBEM)*, 2(5), [63-71]
- Aliyu, A., Dennis, D., & Kolo, B. (2024). Sustainable development goals and poverty reduction in Minna Metropolis, Niger State, Nigeria. *Journal of Development Studies*, 15(2), 45–60.
- Amakoromo, E., Asiegbu, I., & Okafor, C. (2024). Poverty reduction programmes and sustainable development challenges in Nigeria. *African Journal of Economic Development*, 12(1), 78–92.
- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). University of Chicago Press.
- Dada, A. B., Magaji, S. & Ismail, Y. (2025). Exploring The Effectiveness of Capacity Building Programme in Promoting Gender Equality in Agriculture: A Case Study of FCT Abuja. *International Journal of Innovative Psychology & Social Development* 13 (4):181-196, doi:10.5281/zenodo.17566456
- Eke, C.I., Magaji, S., and Ezeigwe, G. C. (2020). An Economic Assessment Model of Employment Dynamics, Capacity Development and Household Telecommunication Expenditure in Nigeria. *Journal of Economics and Sustainable Development*. 11 (4).
- Ekpenyong, L. E., & Edokpolor, J. E. (2015). Technical and vocational education and training in Nigeria: Issues, challenges and a way forward. *Journal of Education and Practice*, 6(9), 110–118.
- Kirkpatrick, D. L., & Kirkpatrick, J. D. (2006). *Evaluating training programs: The four levels* (3rd ed.). Berrett-Koehler.
- Magaji, S., Ismail, Y. and Musa, I. (2025b). Impact of Institutional Quality on Human Capital Development in Nigeria. *MSI Journal of Economics and Business Management*. 2(2), 21-26. DOI: -10.5281/zenodo.14936039
- Magaji, S., Yahaya, I. and Musa, I. (2025a). The Role of Population Dynamics in Advancing Sustainable Economic Growth: A Study Aligned with SDG 8 in Nigeria. 2nd International Conference of the Faculty of Social Sciences, University of Abuja. July 30th to August 1st, 2025.
- Ogunleye, A. O. (2017). Policy implementation and youth empowerment in Nigeria. *African Journal of Public Administration*, 9(1), 23–37.
- Okolie, U. C., Igwe, P. A., & Elom, E. N. (2020). Improving graduate outcomes for technical and vocational education and training in Nigeria. *Journal of Vocational Education & Training*, 72(2), 1–19.
- Ominyi, J., & Abubakar, M. (2024). Poverty alleviation and sustainable development in Nigeria: A VECM approach. *Nigerian Journal of Economic and Social Studies*, 18(1), 101–120.
- Onesme, R., Senthil, K., & Rama, P. (2024). Poverty alleviation strategies for sustainable development: A bibliometric and scientometric analysis. *Sustainability Review Journal*, 9(3), 210–235.
- Sachs, J. D., Schmidt-Traub, G., Kroll, C., Lafortune, G., & Fuller, G. (2019). *Sustainable development report 2019*. Bertelsmann Stiftung.
- Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51(1), 1–17.
- UNESCO. (2020). *Global education monitoring report: Inclusion and education*. UNESCO Publishing.



United Nations. (2015). Transforming our world: The 2030 Agenda for Sustainable Development. United Nations.

Utuk, E. (2022). Poverty and sustainable economic development in Nigeria. *International Journal of Social Economics*, 49(4), 567–582.

Yanni, Z., & Jinghong, L. (2022). Global trends in poverty alleviation research: A bibliometric analysis. *World Development Perspectives*, 27, 100431.

Yao, X., Fanglei, Z., Xiaoyu, L., & Chunlin, W. (2023). Trade-offs and synergies among sustainable development goals: The role of poverty. *Ecological Economics*, 204, 107640.