ISSN: 6024 – 6115
Volume 15, Number 1, 2026
Lapai Journal of Management and Social Science Research
Faculty of Social and Management Sciences Journal
Ibrahim Badamasi Babangida University, Lapai, Niger State, Nigeria

TRAINING AND CAPACITY BUILDING FOR JOB CREATION AMONG FARMERS AND AGRIPRENEURS IN SOUTH-SOUTH NIGERIA

Roland Orie Akpubi
Department of Business Management and Entrepreneurship,
Dennis Osadebay University, Asaba, Delta State,
Email: roland.akpubi@dou.edu.ng.

Prof. Ugochukwu Paul Orajaka
Department of Entrepreneurship Studies,
Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State,
Email: up.orajaka@coou.edu.ng

Prof. Peter Ositadinma Ndubuisi
Department of Entrepreneurship Studies,
Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State,
Email: po.ndubuisi@coou.edu.ng

ABSTRACT
Unemployment remains a major socioeconomic challenge in South-South Nigeria despite the region's vast agricultural potential. This study examined the influence of training and capacity building on job creation among farmers and agripreneurs in the region. Anchored on the Agricultural Innovation System (AIS) Theory, the study adopted a cross-sectional explanatory survey design involving 542 respondents drawn from farmers, agripreneurs, agro-processors, cooperative members, and extension officers across the six South-South states of Nigeria. Data were collected through structured questionnaires and Key Informant Interviews (KIIs) and analysed using descriptive statistics, correlation analysis, and Ordinary Least Squares (OLS) regression. The findings revealed that training and capacity building significantly enhance employment generation among farmers and agripreneurs. Correlation results showed a strong positive relationship between training and job creation ($r = 0.684$, $p < 0.05$), while regression analysis indicated that training and capacity building significantly predict employment generation ($\beta = 0.297$, $t = 5.67$, $p < 0.001$). Respondents reported that participation in training programmes improved productivity, entrepreneurial competence, technology adoption, and business expansion, leading to increased full-time, part-time, and indirect employment opportunities, particularly for youth and women. Qualitative evidence further confirmed that capacity-building initiatives implemented by government agencies, NGOs, and Agricultural Development Programmes (ADPs) strengthened technical, managerial, and digital skills, thereby enhancing enterprise growth and labour absorption. The study concludes that training and capacity building are critical instruments for addressing unemployment and promoting sustainable agricultural entrepreneurship in South-South Nigeria. It recommends the expansion of continuous, inclusive, and demand-driven training programmes, strengthened extension services, and enhanced collaboration among government agencies, development partners, and private-sector actors to maximise the employment potential of the agricultural sector.

Keywords: ***Training; Capacity Building; Job Creation; Agripreneurship; Farmers; Agricultural Entrepreneurship; Employment Generation; South-South Nigeria.***

INTRODUCTION
Agriculture remains a fundamental sector of the Nigerian economy, contributing significantly to employment, food security, poverty reduction, and rural development. It provides livelihoods for a

large proportion of the population, particularly in rural areas, and continues to serve as a key pathway for inclusive economic growth. In recent years, attention has increasingly shifted from subsistence farming to agribusiness and agripreneurship as sustainable mechanisms for job creation and economic transformation (FAO, 2022; World Bank, 2021). This shift is driven by the need to address rising unemployment, especially among youths, and to reposition agriculture as a commercially viable and innovation-driven sector.

Central to this transformation is the role of training and capacity building. Training equips farmers and agripreneurs with modern agricultural techniques, business management skills, financial literacy, and digital competencies necessary for efficient and profitable agricultural practice. Capacity building further strengthens their ability to adopt improved technologies, access markets, manage risks, and expand agricultural enterprises. Empirical evidence suggests that effective training enhances productivity, encourages innovation, supports value addition, and ultimately contributes to job creation across agricultural value chains, including production, processing, logistics, and marketing (IFPRI, 2021; FAO, 2022).

Despite various government and donor-supported initiatives aimed at strengthening agricultural capacity, such as the Agricultural Transformation Agenda (ATA), Youth Employment in Agriculture Programme (YEAP), the Anchor Borrowers' Programme, and NIRSAL, challenges persist in translating these interventions into sustainable employment outcomes. Many farmers and agripreneurs still face limited access to quality training, weak extension services, and poor institutional coordination (Omoju et al., 2023). As a result, a large proportion of agricultural actors continue to rely on traditional farming methods, with limited exposure to modern agronomic practices, post-harvest technologies, and agribusiness management strategies.

The South-South region of Nigeria presents a unique context for examining these challenges. Despite its agricultural potential and resource endowments, the region continues to experience underdeveloped agro-industrial systems, weak institutional support, and limited employment opportunities in agriculture. Consequently, many farmers and agripreneurs are unable to fully benefit from training and capacity-building programmes or translate them into viable employment-generating enterprises.

Against this background, this study examines the impact of training and capacity building on job creation among farmers and agripreneurs in South-South Nigeria. The study is anchored on the need to understand how human capital development influences agricultural entrepreneurship and employment generation in a context marked by structural constraints and limited institutional support. The findings are expected to provide empirical insights for policymakers and development stakeholders on how to strengthen training interventions and improve job creation outcomes within the agricultural sector.

LITERATURE REVIEW

Baseline Theory

This study is built on the Agricultural Innovation System (AIS) Theory. The Agricultural Innovation System (AIS) Theory was based on the more general idea of the National Innovation System (NIS) as described by Freeman (1987) and Lundvall (1992), which stressed that innovation is a by-product of the interactions of various actors as opposed to a research and development initiative in a vacuum. This was popularised by the World Bank (2007) and with other organisations such as the Food and Agriculture Organisation (FAO) and the International Food Policy Research Institute (IFPRI) to aid the improvement of AIS within the agricultural context. The AIS model defines agricultural innovation as the introduction of products, procedures or organisations that already exist or have not been developed, to social and economic applications through interactive learning and knowledge sharing (Hall et al., 2001). In contrast to the traditional linear model, which perceived innovation as a transfer process between the research and the farmer, AIS focuses on a systemic

cooperation between farmers, researchers, extension services, agribusinesses, financial institutions, and policymakers to get sustainable productivity and development results (Spielman & Birner, 2008). The AIS approach is based on three pillars: the social embedding of innovation – it is not only about technology but also about the institutional link, the market and the supporting environment (Hall et al., 2003). It has a series of components, including research and education institutions (on knowledge generation), commercialisation and investment (private companies), adoption and local adaptation (farmer groups), policy formulation (government institutions), and support agencies (capacity building and the provision of funding). The ability of every actor to capture knowledge from others, coordinate with other actors and react to feedback that is available are important for the general success of the innovation process (Hekkert et al., 2007). The AIS theory is thus an advocate of a networked, participatory and demand-led approach to agricultural development- one that is conscious of learning and feedback as opposed to top-down technology transfer.

Theory of AIS is an effective theory in explaining the flow of knowledge and its institutional arrangements, and how they impact the performance of agro-enterprises when applied to the South-South Nigeria agro-entrepreneurship. Yet, Oluwatayo and Adebayo (2021) and Adebayo and Ugochukwu (2023) reported that the integration of farmers, entrepreneurs, and research institutions as innovation platforms or public-private partnerships is found to be associated with high adoption of improved seed, processing technologies and digital tools. The AIS approach demonstrates the importance of having a well-coordinated system of market linkages, credit facilities and extension and the success of agro-entrepreneurship in this context. For instance, agricultural development agency-funded value-chain and capacity building projects contribute to the capacity of entrepreneurs to be innovative and adjust to the new market and environmental conditions, which are significant factors in sustainable job creation.

The theory of AIS in the frame of South South Nigeria is the relevance of interactive learning systems, which can help to reduce the gap between science, policy and practice in relation to rural development, where both infrastructural and institutional vulnerabilities are likely to impact. It is possible to transform traditional farming into viable businesses through farmers being part of innovation networks through the application of cooperatives, incubators and associations of farmers. This conforms with Eze and Nwokeji (2022) and Ikwuakam and Musa (2025), who found that access to finance, training and information networks are some of the important factors that can boost the performance of the agro-entrepreneurs. Therefore, a policy and practice approach to the AIS in the region is to strengthen the capacity of institutional coordination, inclusive participation and diffusion of innovations in value chains to support the generation of jobs and sustainable rural development.

Training and Capacity Building

Capacity building and training are significant pillars in boosting the employment generation in agriculture, which is the enhancement of knowledge and skills as well as competencies of farmers, agripreneurs, and rural workers. Successfully developed trainings provide the participants with knowledge and skills on the current farming practices, management of an agricultural enterprise, and value chain development, in order to be able to follow the more productive path and diversify the income sources. Such efforts to bring empowerment in the human resources put the individuals in farming jobs, which lead to direct and indirect jobs and better livelihood. There is empirical evidence that the agricultural training and entrepreneurship development programs, such as the youth agripreneur program in Nigeria, can enhance the employability and entrepreneurial skills of the beneficiaries as compared to those who were not exposed to the program (Eze & Nwosu, 2023; Suleiman et al., 2024). Conceptually, training and capacity building are seen as one of the key mechanisms of change in the transition of subsistence farmers to agripreneurs who can sustain rural jobs in the conceptual framework.

Capacity building is also conceived in terms of construction enabling and mediating the impact of other independent variables such as access to finance, access to technology and markets on employment generation. A well-trained Agribusiness person and farmer can better manage credit properly, appreciate new technology and make use of new markets, a development which means more jobs and better business growth. It is noteworthy that agricultural extension services are found to be insufficient, vocational training access is limited and institutional coordination is poor in Nigeria, which tends to limit the results of agricultural capacity building efforts (Ogunyinka, 2022; FAO, 2022). As a result, an efficient training and capacity-building model will always be a key to sustainable agro-entrepreneurship and the increase in the number of jobs throughout the agricultural value chains in the country.

Employment Generation

The process of employment generation is multifaceted, and it entails bringing in the creation of new employment opportunities in an economy or in certain industries whose main aim is to absorb the available manpower, lower the level of unemployment and subsequently enhance the living standard of individuals and the society. This is a fundamental process, which plays a role in the ability to provide people with a stable income source and in the development of the economy by stimulating consumer demand, increasing productivity and innovations. Employment generation helps to stabilise the society and alleviate poverty, as well as, easing the problem of crime and social unrest usually associated with unemployment by allowing individuals to earn a livelihood. Further, sustainable job creation plays an important role in ensuring long-term economic sustainability and inclusive growth, in terms of involving diverse groups (youth, women and other marginalised groups) in the formal job market. Several processes lead to job creation, some of which include the expansion of the existing business operations, which create new jobs, while others represent the establishment of new business activities that create new jobs. Government interventions, including the public works programs, labour market reforms and incentives to industries, are also crucial towards speeding up the job creation, especially during economic downturn or structural adjustment. All these actions are aimed at the establishment of a dynamic labor market that adapts to the economic and social changes and establishes a scenario of constantly evolving employment opportunities to meet the needs of an expanding population (World Bank, 2023; ILO, 2022).

Employment creation is much more than merely providing more jobs in a given economy; it actually defines the social and economic life in the sense that it offers people with stable and reliable sources of income that is critical in pulling them out of poverty and improving their living standards at large. Job creation is an important economic empowerment measure in underdeveloped countries where large percentages of the population are often poor and it enables them to meet basic needs in the form of food, health, education and shelter (Chen & Hasan, 2023). While monetary benefit is an important aspect of social inclusion, providing quality employment, defined as the employment that rests on equitable payment, job security, work environments and career advancement is of particular importance. It is particularly important when considering the underserved populations like youth, women and rural population who have traditionally been denied access to employment due to discrimination, incompetence or geographical isolation (United Nations, 2023). This can exacerbate social inequalities in periods of unemployment or low quality jobs, cause frustration and instability in communities, and can lead to social unrest in the community that hinders economic development. As a result, job creation is one of the primary policy objectives of governments all over the world, as they have realized that the capacity to achieve sustainable economic growth, societal unity, and political stability strongly rely on the factors of decent and accessible job availability to all layers of the population (OECD, 2022).

Empirical Review

Recent empirical studies have examined the relationship between training and capacity building and job creation in different contexts. Gambo et al. (2025) investigated entrepreneurship and employment generation in Lafia, Nasarawa State, using a descriptive survey design. The study found that entrepreneurial activities significantly enhance job creation, particularly when supported by microcredit access and financial literacy. Similarly, Agbana and Agbana (2024) reported that entrepreneurial competencies, especially financial and business skills, play a vital role in employment creation and poverty reduction in Nigeria.

In a related study, Akpubi et al. (2025) examined agro-entrepreneurship and social entrepreneurship in Delta State using a mixed-method approach. Findings revealed that both sectors contribute significantly to rural development, employment generation, and social problem-solving, especially when supported by government funding, training, and enabling policies. However, Yetunde and Oyebanjo (2025) found that despite skills acquisition programmes improving entrepreneurial orientation among graduates in Lagos State, challenges such as inadequate funding, poor programme design, and weak participation limited their effectiveness in generating sustainable employment.

Ebomah et al. (2025) emphasized the role of institutional and environmental factors in entrepreneurial success, identifying regulatory quality, market access, and social norms as key drivers of enterprise sustainability. Likewise, Jacobs and Mark (2025) established a positive relationship between entrepreneurial readiness and SME performance in Anambra State, highlighting the importance of financial and technological preparedness for business continuity and job creation.

Studies on entrepreneurship education further reinforce its role in employment generation. Ojiako and Ndubuisi (2025) found a significant relationship between entrepreneurial curriculum and unemployment reduction among students in Anambra State, while Ukam and Ukah (2024) noted that business education can enhance self-employment if supported by adequate financing and institutional support.

In addition, Addah and Dokai-Okonkwo (2024) found that entrepreneurial competencies significantly influence SME sustainability in Delta State, particularly strategic and learning skills. Similarly, Okoli and Nwakoby (2023) identified poor financing, weak infrastructure, and managerial deficiencies as key constraints to small business growth and job creation in Awka Metropolis.

Studies focusing on agripreneurship also provide relevant insights. Randhirsinh and Sarang (2024) observed that rural youth in Maharashtra are interested in agro-entrepreneurship but face constraints such as inadequate infrastructure, finance, and technology. Aruleba (2023) further reported that agricultural training enhances youth participation in agribusiness, although awareness gaps and limited resilience strategies remain challenges.

Furthermore, Umeh et al. (2020) found that socio-economic factors such as education, income, and access to capital significantly influence youth engagement in agripreneurship in Ebonyi State. Similarly, Eze and Igbokwe (2018) established that agro-entrepreneurship contributes significantly to rural employment and income generation but is constrained by poor financing and weak infrastructure.

Earlier studies by Akinola and Okeke (2018) also confirmed that youth-led social enterprises create both direct and indirect employment opportunities while contributing to social development. However, limited access to finance and institutional support remain major barriers to expansion.

Finally, Tofi and Obeta (2020) emphasised that entrepreneurship education is critical for reducing unemployment and enhancing wealth creation among graduates in Nigeria.

RESEARCH METHODOLOGY

This study adopts a cross-sectional explanatory survey design to examine the impact of training and capacity building on job creation among farmers and agripreneurs in South-South Nigeria. The

design is appropriate because it allows for the collection of data at a single point in time and facilitates the analysis of relationships between capacity-building variables and employment outcomes. The population comprises farmers, youth and women agripreneurs, agro-processors, cooperative members, and agricultural extension officers across the six South-South states of Nigeria: Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers. The population reflects the diversity of agricultural actors involved in production, processing, marketing, and extension services.

Table 1: Population Breakdown by State and Category

State	Smallholder Farmers	Youth & Women Agripreneurs	Agro-processors	Cooperative Members	Extension/ADP Officers	Total Population
Akwa Ibom	12,000	4,500	2,000	3,500	150	22,150
Bayelsa	8,000	3,000	1,500	2,500	100	15,100
Cross River	10,000	3,500	2,000	3,000	120	18,620
Delta	15,000	5,000	3,000	4,500	200	27,700
Edo	11,000	4,000	2,500	3,500	150	21,150
Rivers	13,000	4,500	2,500	3,500	180	23,680
Total	69,000	24,500	13,500	20,500	900	**128,400**

Source: Compiled from State ADP offices and registered agricultural cooperatives in South-South Nigeria (2025).

Table 1 shows the population distribution across the states and categories, with a total population of 128,400 agricultural stakeholders sourced from Agricultural Development Programme (ADP) offices and registered cooperatives (FMARD, 2022; IFAD, 2021).

A multi-stage sampling technique was adopted. First, the six states were treated as strata. Second, purposively selected Local Government Areas (LGAs) with high agricultural activity were identified based on ADP records. Third, respondents were randomly selected from verified lists of farmers, agripreneurs, processors, cooperative members, and extension officers. The sample size was determined using Cochran's formula at a 95% confidence level and 5% margin of error, yielding an initial sample of 384. After applying finite population correction, design effect (1.2), and 15% allowance for non-response, the final sample size was 542 respondents.

The sample was proportionally distributed across the six states: Akwa Ibom (91), Bayelsa (90), Cross River (91), Delta (90), Edo (90), and Rivers (90), ensuring geographical representation and balance across agricultural actors. Primary data were collected using structured questionnaires and Key Informant Interviews (KIIs). The questionnaire captured information on training and capacity building, access to finance, technology adoption, market access, and job creation outcomes. KIIs provided qualitative insights from extension officers and agribusiness stakeholders.

Data collection was supported using trained enumerators and digital tools such as KoboCollect to improve accuracy, reduce errors, and enable real-time monitoring. Content validity was ensured through expert review by lecturers and agricultural development specialists. Construct validity was assessed using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to confirm factor structure and model fit. Reliability was tested using Cronbach's Alpha and Composite Reliability (CR), with values above 0.70 considered acceptable (Hair et al., 2019; Kline, 2020). A pilot test involving 30–50 respondents was conducted to refine the instrument, improve clarity, and ensure appropriateness of language and structure.

Before data collection, enumerators were trained on ethical procedures, questionnaire administration, and digital data entry. Community entry was facilitated through ADP officials, cooperative leaders, and local authorities to enhance trust and participation.
Fieldwork included daily supervision, back-checks, and real-time monitoring to ensure data accuracy and reduce errors. Interviews were conducted in English and local dialects where necessary to improve comprehension and response quality. Data were coded, cleaned, and analysed using SPSS. Descriptive statistics such as frequencies, percentages, and means were used to summarise respondents' characteristics and study variables. Inferential analysis was conducted using correlation analysis and multiple regression (OLS) to examine the relationship between training and capacity building and job creation. Diagnostic tests for multicollinearity, heteroscedasticity, and normality were conducted to ensure model validity. Qualitative data from KIIs were analysed using thematic analysis, involving transcription, coding, categorisation, and interpretation of emerging themes such as training effectiveness, access to finance, and institutional support. Findings were triangulated with quantitative results to enhance validity and depth of interpretation.

DATA PRESENTATION AND ANALYSIS

The data gathered from respondents of the six South-South States of Nigeria (Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers) are captured in this chapter. The analyses were oriented towards the study objectives and hypotheses. Correlation and multiple regression analyses were used to test the relationship between capacity building and employment generation.
There were 600 questionnaires distributed in the six States of the country. The response rate was 90.3% with 542 completed and returned. The high response rate is a sign of the efficiency of field supervision, the courtesy of respondents and the cooperation of Agricultural Development Programme (ADP) officers in the areas of study. The response rate, based on Creswell and Creswell's (2018) recommendation of cross-sectional surveys, is adequate for proper statistical analyses.

Descriptive Analysis of the Key Variables'

Capacity Building and Training

Table 2: Capacity Building and Training

Item	Mean	SD	Interpretation
Participation in training programs	3.76	0.88	High
Relevance of training content	3.68	0.91	High
Improved productivity after training	3.85	0.80	High
Regularity of extension services	3.22	0.83	Moderate
Accessibility of youth/women programs	3.40	0.89	Moderate
Job creation through skill development	3.70	0.84	High
NGO/ADP collaboration effectiveness	3.55	0.86	High
Need for more training opportunities	4.12	0.72	Very High

Source: SPSS Output (2026)

Considering the observations recorded in Table 1, it is concluded that capacity building and training are effective tools in the development of agro-entrepreneurship, with a mean score of 3.66. The relevance of the training content was given credit for the consistently high scores in the training activities, and the significant increase in productivity indicated the value that the respondents got from the training received, hence its importance in diving further. The importance of HRD in the modernisation of agriculture, as mentioned by FAO (2022), is considered as one of the necessary inputs in the development of technical and managerial skills and competencies for respond middle farmers and agriprenurs to satisfy market demand and technologies.
The high score (3.76) given by the respondents in training programme participation is due to government sponsored training. This training was described by Agnes and Quisumbing (2021) as

inclusive growth promoting agriculture training as it offers skills to men and women participants. This training which was designed to advance sustainable agriculture in South-South Nigeria to promote agribusiness and climate-smart agriculture to rehabilitate productive rural communities.

The average ratings of the relevance of the training content (mean = 3.68) and the improvements in productivity after the training (mean = 3.85) suggest a fit between what the programs are able to provide and the actual needs of its client base. This congruence is important since World Bank (2021) argues that context-specific and demand-driven training works best as it brings sustainable results compared to training that is generalized or theory-centered. Respondents indicated that training acquired was a factor contributing to the improvements in their productivity, especially in relation to input management, record keeping, and business planning skills. This follows the Becker's (1993) Human Capital Theory which states that investment in knowledge and skills leads to an increase in efficiency, productivity and employability, all of which are important factors in the change of the rural economy.

The average regularity of extension services is 3.22, reflecting the positive reception of the training, although there is some variability in its continuity. Agricultural extension agents' infrequent visits are seen as limiting their ability to adopt new practices. The International Fund for Agricultural Development (IFAD, 2021) also emphasizes extension contacts as an important factor affecting productivity and technology uptake, especially for smallholders depending on external extension support which is often irregular and inadequate. By using digital tools and community-based facilitators for fostering extension, consistent and predictable training can be provided which will lead to enterprise growth and employment outcomes.

The youth and women-oriented programmes accessibility rating was 3.40 (mostly partial), meaning that there is partial inclusion of these groups in the agricultural training programmes. Aside from time, Agnes and Quisumbing (2021) noted that there are structural inequalities, such as socio-cultural factors and land ownership, that hinder women from participating in agricultural education. Progress, however, has been made in closing these gaps and incorporating more gender responsive and youth focused training through the Women in Agriculture (WIA) initiative and the Youth Employment in Agriculture Programme (YEAP). Overshadowing these initiatives with more training and education will foster women's participation in agribusiness value chains and amplify the economic value and innovative abilities of young people.

The item on "Job creation through skill development" is also valuable, and receives a rating of 3.70 that reflects the benefits of training on employment. The opportunity for agripreneurs to expand their operations and create employment opportunities through processing, packaging, marketing and other value addition is very important. The results of study by the International labour organisation (ILO, 2021) confirmed that training in agribusiness and other vocational skills is one direct way of creating rural employment through transformation of subsistence farming. This training not only makes people more productive after completion of training, but there is an impact on the other members of the family and the community.

The respondents also agreed that NGO-ADP collaboration is effective (mean = 3.55) and this indicates that collaboration between public institutions and development agencies has improved outreach, and the quality of the programmes for building capacity. Together with various institutions like FAO, IFAD and AfDB (2022), new training models were developed combining classroom training, field demonstration, and mentorship. These models are able to enable peer learning and make sure that the knowledge gained is applied in practice, thereby promoting enterprise growth and job creation. However, continued funding, coordination and monitoring are essential to good training and impact.

In this regard, the highest mean score was obtained for this construct, "Need for more training opportunities" (4.12), which showed a strong need for training. It resonates with OECD (2025) as lifelong learning is needed for adaptation in changing agricultural markets and opportunities to

embrace technological and climate change. Professional development helps farmers stay current with other farmers, incorporate innovations and develop resilient agribusinesses with the promise of stable employment opportunities. These results, therefore, reflect the capacity building is not a onetime activity, but a continuous process developmental in nature in order to achieve employment promoting, innovation based, inclusive, and growth agricultural development in South-South Nigeria.

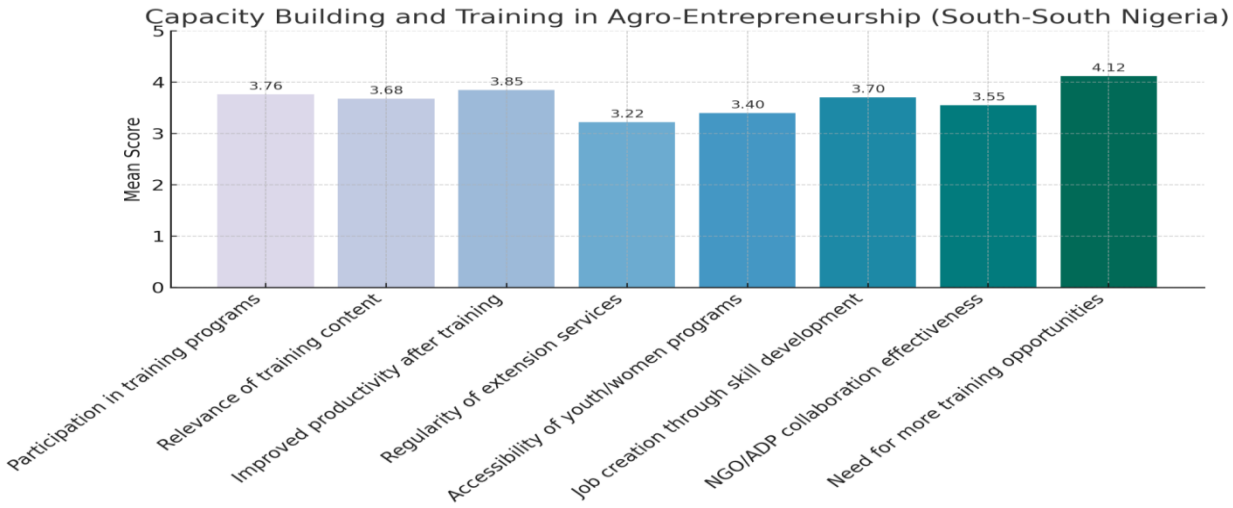

Fig. 1: Capacity Building and Training in South-South Nigeria

The perception of the respondents on knowledge and skills development and its effect on agro-entrepreneurship in South-South Nigeria is shown in Fig 1 Capacity Building and Training. The majority of items above average 3.5 and 4.0 had a positive effect on the perception. The highest ranking item was "Need for more training opportunities" (mean = 4.12) which is indicative of a desire for more training on modern farming practices. "Improved productivity after training" (mean = 3.85) and "Participation in training programs" (mean = 3.76) acknowledge the productive enhancement and growth of enterprises as a result of training while "Job creation through skill development" (mean =3.70) highlighted the employment creation potential of the initiatives. The perceptions of the effectiveness of the training are positive but not full substitution for training with moderate perceptions for "Regularity of extension services" (mean = 3.22) and "Accessibility of youth/women programs" (mean = 3.40). Contextualized training materials in partnerships are enhancing programme effectiveness with relatively positive perceptions on the effectiveness of "NGO/ADP collaboration" (mean = 3.55) and "Relevance of training content" (mean = 3.68). From the chart, it is clear that training has contributed immensely in the area of productivity and employment. Improvement of the institutional level, in terms of inclusiveness, consistency, and collaboration, will be needed to improve the contribution of agro entrepreneurship to sustainable development.

Employment Generation Outcomes

Table 3: Employment Generation

Item	Mean	SD	Interpretation
Full-time employment in enterprise	3.74	0.80	High
Part-time/seasonal employment	3.69	0.83	High
Growth in employment in 3 years	3.82	0.78	High
Improved wages and conditions	3.68	0.84	High
Jobs for youth and women	3.91	0.76	Very High
Indirect job creation	3.80	0.79	High
Increased hiring with finance/markets	3.77	0.80	High

Improved income levels	3.88	0.74	High
Community livelihood impact	3.92	0.70	Very High

Source: SPSS Output (2026)

The benefits of agro-entrepreneurship on the welfare and employment of the community in South-Southern Nigeria are summarised in Table 3. The mean scores of the respondents, which are above 3.70, indicate their high level of agreement that agricultural enterprises contribute to improvements in jobs and livelihoods, and to resilient rural economies. This aligns with the statement by FAO (2022) and the World Bank (2021) that agricultural entrepreneurship continues to be one of the most powerful tools to combat poverty and inclusive employment in developing economies. The high ratings for the employment indicators highlight the direct and indirect employment opportunities in agro-entrepreneurship, thus strengthening the economic activity and rural transformation of the community.

Agro enterprises in the area produce an average score of 3.74 for the indicator "Full-time employment in the enterprise" which indicates a stable group of full-time agricultural workers. The transition from subsistence to commercial agriculture and their associated organization of work in agro-processing and logistics and marketing systems were noted as key factors by the respondents. ILO (2021) further notes that jobs in formal agribusiness are organised in ways that include improved labour rights and benefits compared to informal agribusiness systems. In South-South Nigeria, this reflects the shift towards a more capitalistized agricultural economy in which farming operations are becoming more formal and growth oriented to provide a more sustainable livelihood. Agricultural employment that is part-time or seasonal (3.69) is valued, as indicated by the mean score. Seasonal jobs are an important component of the rural labour market for many households, especially in the planting and harvest periods, and are a source of income. These employment opportunities are crucial during off-season in the households to support the economically vulnerable and to strengthen the household income (International Fund for Agricultural Development (IFAD), 2021). For women and youths who rely on agricultural activities to supplement their income in the south, such opportunities are crucial.

The employment changes were linked by respondents with the increasing capability of agriculture and the investments in agribusiness. Empowerment programs were also noted as having been carried out by the government and involvement of the private sector in the programs was also noted. This is consistent with AfDB (2022) findings that development of agricultural value chains and financing still plays a significant role in the growth of employment opportunities in African economies. The value of the employment multipliers experienced in South-South Nigeria should build confidence in the economic diversification and resiliency of the region, with a particular emphasis on agro-industrialization.

The measurable outcome relating to "Improved wages and working conditions" also indicates more changes to integration of employers and employees in the sector. The respondents highlighted the importance of formalizing agripreneur operations through finance, technology and training. These enhancements also enabled the observed changes in the compensation and employer obligations of employees. The modernisation and mechanisation practices in agriculture, as a result of which productivity has advanced, were cited as the cause of such shifts in agricultural wages by the World Bank (2021). When working conditions are positive, good skilled staff will be recruited and there will be fewer employees leaving. These characteristics contribute to the operational smoothness of these enterprises, and can be linked to modern practices used within them.

The statement "Jobs for youth and women" had the second highest mean score in the table of 3.91. It demonstrates how agriculture is becoming an employment sector which is open to everyone. Partly due to empowering and 'targeted interventions' such as the Women in Agriculture Programme (WIA) and the Youth Employment in Agriculture Programme (YEAP). Also, research conducted by Agnes and Quisumbing (2021) and FAO (2022) showed that training that is sensitive to the needs

of a specific gender, together with financial resources, boosts economic participation, lowers unemployment rates and promotes equity in rural economies. This shows that agro-entrepreneurship promotes social inclusion and empowerment in South-South Nigeria.

A mean score of 3.80 means that the nature of the multiplier effect of agricultural enterprises in the rural economy is "Indirect Job Creation", reflecting the magnitude of the multiplier effect. When agribusiness advances indirectly, that creates jobs in the transport, input supply, packaging, storage and retailing value chains, respondents said. This is consistent with Schumpeter's (1934) theory on growth by innovation, which states that the activity of entrepreneurs in rural economy creates indirect employment opportunities by triggering value chain growth, and service linkages. In South-South region, agro-industrial clusters have grown up creating an ecosystem where the expansion of one company stimulates other downstream companies and the creation of several jobs.

Respondents agreed that employment capacity of the agribusinesses improves with finance and market access, as evidenced by the high mean number of 3.77 for the statement "Increased hiring with finance and market access". Respondents reported the enterprises with which they had loan financing and improved credit for market access growing, taking on more workers and introducing mechanisation. This expansion helps in job creation in the enterprise. This is consistent with IFAD (2021) and FAO (2022) findings that employment increases as financial market access increases. This means that local jobs will be created as a consequence of integrating targets for agriculture employment into strong value chains developed for smallholder farmers.

Finally the indicator with the highest average rating (Community livelihood impact, mean = 3.92) indicates the highest social value of agro-entrepreneurship (aside from the direct employment effects). The participants noted positive impacts of enhanced agricultural productivity, diversification of income and local investments on improving livelihoods and reducing rural poverty. At the community level, OECD (2025) defined agricultural impact as an increase in local enterprise development, food security, and youth retention in rural areas, which was also captured by the World Bank (2021). These benefits bring about the sustainable development and well-being of a region. It is suggested that agro-entrepreneurship not only creates employment but also contributes to inclusive growth, transformation of rural areas, women empowerment and pro rural development in the South-South region of Nigeria.

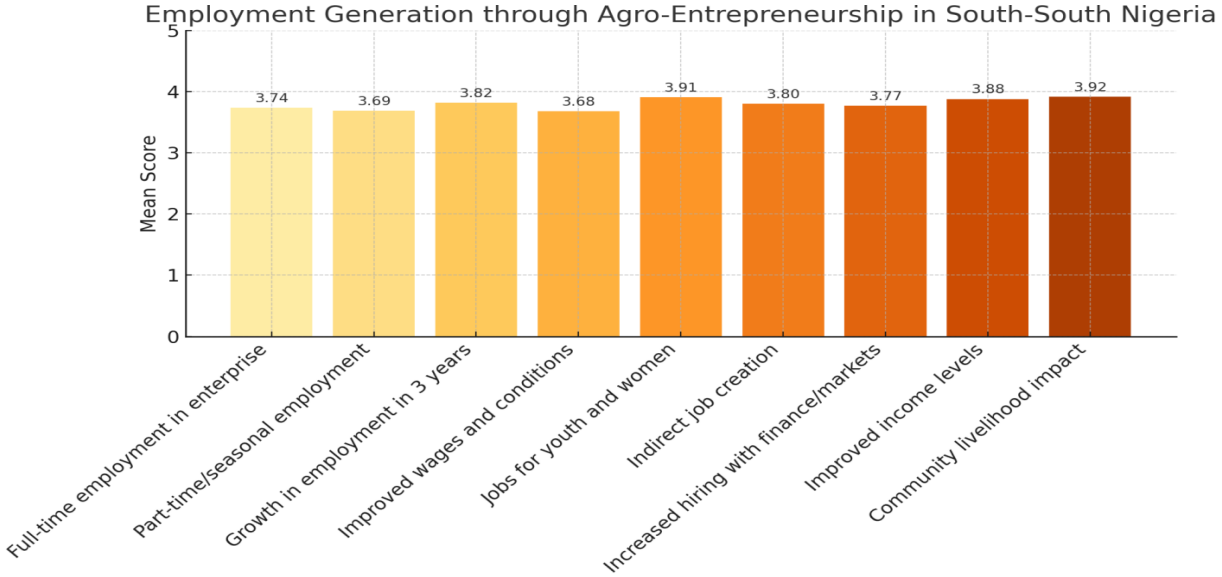

Figure 2: Employment Generation through Agro-Entrepreneurship

Figure 2 on employment creation from Agro-Entrepreneurship depicts the considerable positive influence of agro-entrepreneurship on employment creation, revenue generation, and community welfare in South-South Nigeria. The most encouraging aspects are those that were rated high, such

as "impact on livelihood of communities" (mean = 3.92) and "Jobs for youth and women" (mean = 3.91), which reflect the transformative power of agro-entrepreneurships on social inclusion, rural poverty alleviation, and the empowerment of the poor through productive opportunities. High scores among the other results also indicate the creation of secondary employment opportunities as the employment and market system in the targeted areas grows, with "Indirect job creation" (3.80), "Increased employment in 3 years" (3.82), and "Improved income levels" (3.88). They confirmed the documented observations and recommendations of the FAO (2022), IFAD (2021), and the World Bank (2021) regarding the employment-generating potential of rural agribusiness growth and its value chain. Although positive, the moderate scores signal the structural gaps that still exist in the employment commitment, including "Part-time/seasonal employment" (3.69) and "Improved wages and conditions" (3.68). The overall observations documented show that the attainment of social-structural rural integration and development depends on the provision of extended and continued fermentation support in agro-entrepreneurship with policy incorporation, access to credit, and training.

Correlation Analysis

Correlation analysis is a statistical method employed to measure the strength of the relationship between two quantitative random variables. The correlation coefficient measures this relationship, ranging from -1 to 1. A correlation coefficient of 0 indicates no relationship between the variables, while a perfect negative or positive correlation is shown by values of -1 or 1, respectively. A strong correlation indicates a substantial relationship between the variables, whereas a small correlation signifies an inconsequential association between them.

Table 4: Summary of the Impact of Training and Capacity Building on Job Creation

Table	Statistical Result	Explanation/Interpretation
Correlation Analysis	Correlation coefficient (r) = 0.684, $p < 0.05$	The correlation analysis indicates a strong positive and statistically significant relationship between training and capacity building and employment generation. The coefficient of 0.684 is high, suggesting that improvements in training, skills acquisition, entrepreneurial education, and continuous capacity development are strongly associated with increased job creation. This implies that agro-entrepreneurs who participate in capacity-building programmes are more likely to improve productivity, expand their businesses, and employ additional workers.
OLS Multiple Regression Analysis	Unstandardized Coefficient (B) = 0.297 Standardised Beta (β) = 0.297 t-value = 5.67 p-value = 0.000	The regression results show that training and capacity building have a great influence on employment generation. The positive regression coefficient (B = 0.297) indicates that an improvement in capacity-building initiatives leads to a corresponding increase in employment generation when other variables are held constant. The standardised beta coefficient (β = 0.297) confirms that capacity building is a strong predictor of job creation in the model, while the highly significant p-value (0.000) demonstrates that this relationship is statistically reliable and not due to chance.
Qualitative (Key	Training Impact Theme	The qualitative findings support the quantitative results by showing that training programmes organised by government agencies, NGOs, and Agricultural Development Programmes

Table	Statistical Result	Explanation/Interpretation
Informant Interviews)		(ADPs) have enhanced farmers' technical, entrepreneurial, managerial, and digital skills. Respondents reported that trained agripreneurs were able to increase productivity, expand their enterprises, and create additional employment opportunities, particularly for youth and women.
Overall Finding	Capacity Building is a Strong Predictor of Employment Generation	Evidence from the correlation analysis, regression analysis, and qualitative interviews consistently demonstrates that training and capacity building exert the greatest positive influence on job creation. Investment in human capital equips agro-entrepreneurs with the competencies required to improve productivity, adopt innovative practices, expand business operations, and generate sustainable employment. These findings are consistent with Becker's Human Capital Theory (1993) and the empirical studies of Agnes and Quisumbing (2021) and FAO (2022), which identify human capital development as a critical driver of employment creation and sustainable rural development.

Source: SPSS Output, 2026.

Table 5: Analysis of the Impact of Training and Capacity Building on Job Creation

Statistical Indicator	Value	Interpretation
Hypothesis (H_{o1})	Training and capacity building have no significant effect on job creation among farmers and agripreneurs in South-South Nigeria.	This hypothesis was tested to determine whether capacity-building initiatives influence employment generation.
Independent Variable	Training and Capacity Building	Represents skill acquisition, technical training, entrepreneurial development, and extension education provided to farmers and agripreneurs.
Dependent Variable	Job Creation	Refers to employment opportunities generated through agricultural and agribusiness activities.
Regression Coefficient (β)	0.297	The positive coefficient indicates that improvements in training and capacity building are associated with increases in job creation. A one-unit increase in training and capacity-building initiatives is expected to increase job creation by 0.297 units, holding other variables constant.
t-Statistic	5.67	The high t-value shows that training and capacity building make a substantial contribution to explaining variations in job creation.

Statistical Indicator	Value	Interpretation
p-Value	0.000	Since the p-value is less than 0.05, the relationship is statistically significant, indicating strong evidence against the null hypothesis.
Decision	Reject H_{0_1}	The null hypothesis is rejected because the p-value (0.000) is less than the significance level of 0.05.
Level of Significance (α)	0.05	The result is significant at the 5% significance level.
Overall Interpretation	Positive and Significant Effect	Training and capacity-building programmes significantly improve job creation by enhancing farmers' technical skills, entrepreneurial competencies, productivity, and capacity to establish and expand agribusinesses, thereby generating additional employment opportunities.

Source: SPSS Output (2026)

The regression results indicate that training and capacity building have a statistically significant positive effect on job creation among farmers and agripreneurs in South-South Nigeria. The regression coefficient (β = 0.297) demonstrates that increased investment in training programmes leads to higher levels of employment generation. The t-statistic of 5.67 confirms that the effect is substantial, while the p-value of 0.000 indicates that the relationship is highly significant at the 5% level. Consequently, the null hypothesis was rejected, and it was concluded that training and capacity-building initiatives play a vital role in promoting employment by equipping individuals with the knowledge, technical skills, and entrepreneurial capabilities needed to establish, expand, and sustain agricultural enterprises. These findings support the view that investment in human capital is a critical strategy for enhancing rural employment and fostering sustainable agricultural development.

Discussion of Findings

The findings of this study revealed that training and capacity building significantly and positively influence employment generation in South-South Nigeria (β = 0.297, t = 5.67, p < 0.001), making it a strong predictor of job creation among the variables examined. This underscores the importance of human capital development in promoting entrepreneurship, improving productivity, and creating sustainable employment opportunities. Training programmes in agribusiness, business management, innovation, and technical skills equip individuals with the competencies required for self-employment, enterprise expansion, and increased labour absorption. The finding supports Human Capital Theory, which posits that investments in education and skills enhance productivity and economic outcomes.

This result is consistent with previous empirical studies. Aruleba (2023) found that entrepreneurial training encouraged young people to pursue agribusiness and improved their innovative capacity. Similarly, Yetunde and Oyebanjo (2025) reported that the Skills Acquisition and Entrepreneurship Development (SAED) programme enhanced graduates' entrepreneurial competencies and employability, despite challenges relating to funding and gender disparities. Ojiako and Ndubuisi (2025) also concluded that entrepreneurial education plays a critical role in reducing graduate unemployment by equipping learners with market-relevant skills.

Furthermore, the findings agree with those of Gambo et al. (2025) and Madu and Akinwale (2020), who observed that capacity building enhances business growth and employment creation by improving entrepreneurs' managerial and financial capabilities. Likewise, Oladele and Adeyemo (2020) demonstrated that management and innovation skills promote value addition, productivity,

and food security, while Akinloye and Adebayo (2021) and Oyekan and Yusuf (2017) established that entrepreneurial skill development enables business expansion and job creation. In addition, Nuhu et al. (2017) highlighted that training empowers women to participate more actively in agribusiness, thereby improving household welfare and employment outcomes. Collectively, these findings suggest that sustained and inclusive capacity-building programmes targeting youth, women, and small-scale entrepreneurs are essential for stimulating employment generation and rural economic development.

CONCLUSION AND RECOMMENDATIONS

The study concluded that capacity building and training play a critical role in enhancing job creation in South-South Nigeria. Evidence shows that targeted training in agribusiness, management, technical skills, and value addition significantly improves productivity and increases opportunities for self-employment and enterprise expansion. However, the effectiveness of these programmes is constrained by inconsistencies in training duration, limited coverage, and inadequate standardised training packages. These gaps limit the full integration of rural populations into agricultural value chains, thereby reducing the overall employment impact of human capital development initiatives.
To address these challenges and strengthen agro-entrepreneurship for improved employment outcomes, the study recommends the following:

- Expansion of continuous capacity-building programmes: Government and relevant stakeholders should strengthen technical, managerial, and business training for farmers and agripreneurs through sustained extension services.
- Practical and inclusive training design: Training programmes should be locally relevant, hands-on, and tailored to address real agricultural needs, with strong emphasis on youth and gender inclusion to reduce employment disparities, particularly among women.
- Strengthened partnerships: Collaboration among government agencies, Agricultural Development Programmes (ADPs), NGOs, and private sector actors should be enhanced to ensure coordinated, well-structured, and sustainable capacity-building interventions that effectively support rural development and job creation.

REFERENCES

1. Akinola, O. A., & Okeke, C. C. (2018). Youth-led social enterprises and employment generation in Nigeria. *Journal of Entrepreneurship and Development Studies, 12*(2), 45–61.
2. Aruleba, K. T. (2023). Agricultural training and youth participation in agribusiness in Nigeria. *Nigerian Journal of Agricultural Extension and Rural Development, 18*(1), 88–102.
3. Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd ed.). University of Chicago Press.
4. Food and Agriculture Organization (FAO). (2022). *The state of food and agriculture 2022: Leveraging agricultural innovation for sustainable development*. FAO.
5. Gambo, A. U., Ibrahim, M. S., & Abdullahi, H. A. (2025). Entrepreneurship and employment generation in Lafia, Nasarawa State, Nigeria. *International Journal of Entrepreneurship and Small Business Development, 10*(3), 112–128.
6. Hall, A., Janssen, W., Pehu, E., & Rajalahti, R. (2006). *Enhancing agricultural innovation: How to go beyond the strengthening of research systems*. World Bank.
7. Ojiako, P. O., & Ndubuisi, P. O. (2025). Entrepreneurship education and unemployment reduction among university students in Anambra State, Nigeria. *Journal of Entrepreneurship Education and Practice, 9*(2), 54–71.
8. Spielman, D. J., & Birner, R. (2008). How innovative is your agriculture? Using innovation indicators and benchmarks to strengthen national agricultural innovation systems. *World Bank Agricultural and Rural Development Discussion Paper*, 41, 1–34.

9. World Bank. (2021). *Harvesting prosperity: Technology and productivity growth in African agriculture*. World Bank Publications.
10. Yetunde, A. A., & Oyebanjo, O. A. (2025). Skills acquisition programmes and graduate employability in Lagos State, Nigeria. *African Journal of Entrepreneurship and Innovation Studies, 7*(1), 76–94.
11. Akpubi, R. O., Orajaka, U. P., & Ndubuisi, P. O. (2026). *Training and capacity building for job creation among farmers and agripreneurs in South-South Nigeria*. Unpublished manuscript, Dennis Osadebay University and Chukwuemeka Odumegwu Ojukwu University.