Perceived Challenges to Rural Youth Retention in Agricultural Enterprises in Ogbomoso Agricultural Zone, Oyo State, Nigeria

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Abstract
Youth retention in agricultural enterprises is essential for sustainable production, employment generation and rural development in Nigeria. This study assessed rural youth retention in agricultural enterprises, perceived challenges affecting retention and improvement strategies in Ogbomoso Agricultural Zone of Oyo State, Nigeria. Data were collected from 160 rural youth selected through multistage sampling using a structured interview schedule, and analysed with frequencies, percentages, means, weighted mean scores (WMS) and Pearson product moment correlation. Retention indicators (engagement, experience, satisfaction, intention to continue and commitment) were highest in crop production (67.5% engaged; 61.9% intending to continue; commitment WMS = 1.87), followed by livestock production (57.5%; 55.4%; WMS = 1.63), and lowest in agro-processing (14.4%; 10.6%; WMS = 0.36). Major challenges were lack of financial support (WMS = 1.80), limited access to land and modern technologies (1.73), poor roads and transportation (1.73), insecurity (1.68) and high input costs (1.67). Affordable credit (WMS = 3.84), land for youth farming (3.78) and regular training (3.77) were rated the most effective strategies for improving retention. Age was positively and significantly related to retention ($r = 0.379$, $p < 0.001$); household size and years of schooling were not. The study recommends improving access to credit and farmland, expanding practical training and mentorship, supporting entry into agro-processing, upgrading rural roads and strengthening security to promote sustained youth engagement in agricultural enterprises.

Keywords: *Rural youth, youth retention, agricultural enterprises, perceived challenges, Ogbomoso.*

Introduction

Agriculture is an important source of livelihood, employment and food supply in Nigeria, particularly in rural communities where households depend directly or indirectly on agricultural production and related enterprises. The sector also provides opportunities for entrepreneurship in input supply, processing, transportation, marketing and other stages of agricultural value chains. Rural youth are an important resource for agricultural development because they can contribute labour, creativity, innovation and the adoption of new technologies. Sustaining their involvement is therefore relevant to agricultural productivity, rural economic development and the continuity of agricultural enterprises.

Despite these opportunities, encouraging rural youth to remain in agriculture is a continuing challenge. Rural youth may perceive agriculture as physically demanding, financially uncertain and less attractive than alternative occupations. Limited access to land and finance, high production costs, inadequate infrastructure and restricted market opportunities can make it difficult for rural youth to establish or sustain viable agricultural enterprises. Geza et al. (2021), in their scoping review of youth participation in agriculture, identified low earnings, inadequate social protection and unfavourable perceptions of agriculture among issues affecting youth participation. Similarly, Yami et al. (2019) highlighted the importance of addressing rural youth's access to resources, skills development, financing and collective action when designing interventions to encourage agribusiness engagement.

In Nigeria, research has examined rural youth's willingness to participate in agriculture and the contribution of agricultural support programmes. Fawole and Ozkan (2019), in a study involving unemployed graduates in southwestern Nigeria, found that respondents' willingness to participate in agriculture was associated with factors including educational status, agricultural training and employment status. Adeyanju et al. (2020) also reported a positive effect of participation in the Fadama Graduate Unemployed Youth and Women Support programme on the likelihood of youth engagement in agribusiness. These studies demonstrate the importance of support systems and enabling conditions in encouraging youth participation. Nevertheless, entry into agriculture and sustained participation are not necessarily the same: rural youth may become involved but still encounter difficulties that limit their ability or willingness to continue.

Retention-oriented interventions therefore need to address the practical circumstances confronting rural youth already involved in agricultural enterprises. Financial support may enable them to acquire inputs and equipment, while access to farmland, training, technology and market opportunities can improve their capacity to manage agricultural enterprises. Rural infrastructure, including roads and transportation systems, is also relevant because production cannot translate into sustainable income when inputs and produce are difficult or expensive to move. The High Level Panel of Experts on Food Security and Nutrition (2021) similarly identifies resources, knowledge and innovation as important considerations for youth engagement and employment in agriculture and food systems.

Although previous studies have examined youth participation in agriculture, agricultural training and youth-oriented support programmes, participation does not necessarily translate into sustained engagement in agricultural enterprises. Young people who have entered the sector may remain engaged, scale down or withdraw from particular enterprises, and they may continue to face financial, infrastructural, technological and institutional constraints that make it difficult to maintain their activities over time. Studies of constraints to youth involvement in agricultural production (Adekunle et al., 2009) and of youths' willingness or unwillingness to work in agriculture (Girdziute et al., 2022) provide useful context, but they focus mainly on involvement and willingness rather than on retention among youth who are already engaged. Evidence on how far rural youth are retained in specific agricultural enterprises, and on how retention relates to their personal characteristics and to the constraints they perceive, remains limited for Ogbomoso Agricultural Zone.

This study therefore assessed rural youth retention in agricultural enterprises in Ogbomoso Agricultural Zone, Oyo State, Nigeria. Specifically, it (i) assessed the level of retention of rural youth in crop production, livestock production and agro-processing; (ii) identified the perceived challenges to retention; and (iii) ranked strategies for improving retention. The study also tested the null hypothesis (Ho1) that there is no significant relationship between selected socio-economic

characteristics of rural youth (age, household size and years of schooling) and their retention in agricultural enterprises. The findings are intended to provide context-specific evidence to guide interventions that support not only entry into agriculture but also continued involvement.

Materials and Methods

The study was conducted in Ogbomoso Agricultural Zone of Oyo State, southwestern Nigeria. The zone contains rural communities in which crop production and other agricultural activities contribute to local livelihoods. Three rural blocks Ogo-Oluwa, Surulere and Oriire were selected for the study because of their rural characteristics. The study population comprised rural youth in Ogbomoso Agricultural Zone. A multistage sampling procedure was used to select respondents. First, Ogbomoso Agricultural Zone was purposively selected. Second, Ogo-Oluwa, Surulere and Oriire blocks were purposively selected. Third, three cells were selected from each block. The selected cells were Odo-Oba, Otamokun and Lagbedu in Ogo-Oluwa; Iresaadu, Oko and Gambari in Surulere; and Oolo, Iluju and Ikoyi in Oriire. Respondents were then selected from the chosen cells, with allocation based on the population of the cells. A total of 160 rural youth participated in the study.

Primary data were collected using a structured interview schedule designed to obtain information on rural youth retention in agricultural enterprises, the challenges affecting retention and strategies for improving it. The instrument was developed in line with the study objectives, pre-tested among rural youth outside the study area and reviewed by experts in agricultural extension and rural development to improve its face validity. It was subsequently revised. Reliability was assessed using the split-half method, which produced a correlation coefficient of 0.75.

Retention was the dependent variable. It was assessed separately for crop production, livestock production and agro-processing using six indicators: current engagement (yes = 1, no = 0); years of experience; level of engagement (fully engaged = 2, partially engaged = 1, not engaged = 0); satisfaction and commitment (high = 3, medium = 2, low = 1, not satisfied or not committed = 0); and intention to continue (yes = 1, no = 0).

Challenges affecting retention were measured using thirteen listed constraints, including limited access to finance, land and technologies, infrastructure difficulties, insecurity, input costs and climate-related uncertainty, each rated as very challenging (2), challenging (1) or not a challenge (0). Strategies for improving retention were assessed using eleven options rated on a five-point scale: very effective (4), effective (3), moderately effective (2), slightly effective (1) and not effective (0).

Data were analysed using frequencies, percentages, means and weighted mean scores (WMS), which were used to describe and rank the retention indicators, challenges and strategies. Pearson product moment correlation (PPMC) was used to test the null hypothesis (Ho1) of no significant relationship between selected socio-economic characteristics (age, household size and years of schooling) and the composite retention score at the 5% level of significance.

Results and Discussion

Level of rural youth retention in agricultural enterprises

Table 1 presents the retention indicators for the three enterprises. Retention was concentrated in primary production. Crop production had the highest proportion of youth currently engaged (67.5%), followed by livestock production (57.5%), while only 14.4% were engaged in agro-processing. Engagement was not always full: 49.4% of respondents were fully engaged in crop production and 38.8% in livestock production, with a further 18.1% and 18.8% partially engaged.

By contrast, 32.5% and 42.5% were not engaged in crop and livestock production respectively, and 85.6% were not engaged in agro-processing. Retention in even the most popular enterprise is therefore incomplete, since about one-third of respondents were not engaged in crop production.
Intention to continue followed the same pattern. About three in five respondents (61.9%) intended to continue in crop production and 55.4% in livestock production, compared with 10.6% in agro-processing. Satisfaction and commitment showed the same order: crop production ranked first (WMS = 1.72 and 1.87, respectively), livestock production second (WMS = 1.52 and 1.63) and agro-processing last (WMS = 0.29 and 0.36). Taken together, the indicators show that retention is uneven across enterprises and is strongest where entry requirements are lowest.
Mean years of experience were 7.81 in crop production, 4.87 in livestock production and 0.81 in agro-processing, indicating that most respondents have been involved in agricultural enterprises for a relatively short period. This may reflect recent entry rather than withdrawal. Because the study was a cross-sectional survey, it cannot distinguish youth who have left an enterprise from those who never entered it, so the indicators should be read as measures of current engagement, commitment and intention to continue rather than as observed exit rates. The short experience profile nevertheless suggests that support in the early years of farming is relevant to sustaining youth involvement.
The very low retention in agro-processing is consistent with its greater capital, skill and infrastructure requirements. Together with the financial, technological and infrastructural constraints reported in the next section, this suggests that youth are retained more readily in enterprises with lower entry barriers, although the present data do not test this link directly.

Table 1: Retention of rural youth in crop production, livestock production and agro-processing n = 160

Retention indicator	Crop production	Livestock production	Agro-processing
Currently engaged, F (%)	108 (67.5)	92 (57.5)	23 (14.4)
Fully engaged, F (%)	79 (49.4)	62 (38.8)	5 (3.1)
Partially engaged, F (%)	29 (18.1)	30 (18.8)	18 (11.3)
Not engaged, F (%)	52 (32.5)	68 (42.5)	137 (85.6)
Intends to continue, F (%)	99 (61.9)	87 (55.4)	17 (10.6)
Satisfaction level, WMS	1.72	1.52	0.29
Commitment level, WMS	1.87	1.63	0.36
Mean years of experience	7.81	4.87	0.81

Source: Field survey, 2025.

Challenges affecting rural youth retention in agricultural activities

The findings indicate that rural youth in Ogbomoso Agricultural Zone experience several economic, infrastructural, technological and institutional challenges that may discourage their continued involvement in agricultural activities. Using a three-point rating scale, lack of access to financial support was the highest-ranked challenge, with a weighted mean score (WMS) of 1.80. A substantial proportion of respondents (81.3%) rated this constraint as very challenging. Limited access to land and modern farming technologies and poor road networks and transportation difficulties followed, with respective WMS values of 1.73. These challenges were rated as very challenging by 78.8% and 77.5% of respondents, respectively.

Insecurity or conflicts in rural farming areas were also prominent, with a WMS of 1.68, while the high cost of agricultural inputs recorded a reported WMS of 1.67. Climate change and unpredictable weather conditions followed with a WMS of 1.58. Other challenges included poor access to digital tools and communication networks (WMS = 1.49), rural–urban migration in search of non-agricultural employment (WMS = 1.43), weak cooperative systems and limited youth-farmer networks (WMS = 1.39), and inadequate access to information on farming practices and markets (WMS = 1.35). Limited access to agricultural extension services recorded a WMS of 1.33.

Overall, the findings suggest that financial constraints, difficulties accessing productive resources and inadequate rural infrastructure are prominent concerns among the surveyed rural youth. Limited access to finance can restrict the ability of young farmers to acquire inputs, obtain equipment, expand production and respond to unexpected costs. Similarly, restricted access to farmland and appropriate technologies can limit their productive capacity, while poor roads and transportation can make it more difficult to move inputs to farms and produce to markets. Insecurity and unpredictable weather conditions may add further uncertainty to agricultural investment and production.

These findings highlight the interconnected nature of the constraints experienced by rural youth. Financial assistance alone may be insufficient where young farmers cannot secure land, obtain suitable technologies or transport their produce to markets. Consequently, interventions aimed at improving youth retention should address access to finance alongside productive resources, infrastructure, risk management and institutional support. The results are consistent with the broader arguments in the literature reviewed in this study, which identify resource constraints and limited economic opportunities as important barriers to sustained rural youth retention in agriculture.

Table 2: Distribution of respondents according to their challenges in agriculture n = 160

Challenges	Very challenging F (%)	Challenging F (%)	Not a challenge F (%)	WMS	Rank
Limited access to land and modern farming technologies	126(78.8)	25(15.6)	9(5.6)	1.73	2nd
Lack of access to financial support	130(81.3)	28(17.5)	2(1.3)	1.80	1st
Poor road networks and transportation difficulties	124(77.5)	29(18.1)	7(4.4)	1.73	2nd
Limited access to agricultural extension services in rural areas	70(43.8)	72(45.0)	18(11.3)	1.33	11th
Inadequate access to information on farming practices and markets	72(45.0)	72(45.0)	16(10.0)	1.35	10th
Cultural expectations that discourage rural youth from agricultural activities	58(36.3)	75(46.9)	27(16.9)	1.19	13th
Lack of role models or success stories in rural agriculture	70(43.8)	65(40.6)	25(15.6)	1.28	12th

Rural-urban migration of youth in search of non-agricultural jobs	86(53.8)	57(35.6)	17(10.6)	1.43	8th
Weak cooperatives systems or lack of young farmers groups	76(47.5)	71(44.4)	13(8.1)	1.39	9th
Poor access to digital tools and communication networks	94(58.8)	51(31.9)	15(9.4)	1.49	7th
Insecurity or conflicts in some rural farming areas	113(70.6)	42(26.3)	5(3.1)	1.68	4th
High cost of agricultural inputs	118(73.8)	32(20.0)	10(6.3)	1.67	5th
Climate change and unpredicted weather	103(64.4)	47(29.4)	10(6.3)	1.58	6th

Source: Field survey, 2025

Strategies for improving rural youth retention in agricultural activities

The respondents rated the proposed strategies generally favourably, with weighted mean scores ranging from 3.53 to 3.84 on the four-point scoring range of 0–4. Providing access to affordable credit and financial support ranked first, with a WMS of 3.84. Ensuring the availability of farmland specifically for young people ranked second (WMS = 3.78), while offering regular agricultural training and skills-development programmes ranked third (WMS = 3.77). Promoting modern farming technologies and innovations ranked fourth, with a WMS of 3.73, followed by establishing youth-focused agricultural cooperatives and networks (WMS = 3.68).

Other highly rated strategies included providing mentorship and extension support from experienced farmers (WMS = 3.64), integrating agriculture into school and university curricula (WMS = 3.63), and enhancing access to markets and value-chain opportunities (WMS = 3.62). Supporting community-led agricultural initiatives and providing incentives, such as awards, subsidies and recognition, each recorded a reported WMS of 3.61. Awareness campaigns aimed at improving the image of agriculture among young people ranked last among the listed strategies, with a WMS of 3.53. Despite its lower ranking, this score still indicates a generally favourable assessment of the strategy by respondents.

The prominence of affordable credit and financial support corresponds with the finding that inadequate financial support was the leading challenge affecting rural youth retention. This alignment suggests that improving access to suitable financing mechanisms should be a priority for institutions seeking to support young people in agriculture. Such support could include appropriately designed agricultural loans, grants, input financing and other transparent funding arrangements that reflect the production cycles and financial circumstances of young farmers.

Land access and agricultural training were the next most highly rated strategies. Their ranking reflects the importance of enabling young people to obtain productive resources and develop the practical and entrepreneurial skills required to manage agricultural enterprises. Access to farmland may provide a foundation for sustained production, while regular training can strengthen knowledge of modern production methods, farm management and emerging agribusiness opportunities. The high ranking of modern farming technologies further suggests that making appropriate technologies available may help young people improve productivity and reduce some of the difficulties associated with labour-intensive production systems.

Cooperatives, mentorship and extension support also represent potential mechanisms for strengthening youth participation. Well-functioning youth-focused groups may improve

opportunities for collective purchasing, information sharing and access to markets, while experienced farmers and extension professionals can offer technical guidance and practical support. Similarly, better market linkages and value-chain opportunities could help young farmers connect production to more reliable income-generating activities.

Taken together, the findings point towards a coordinated approach to youth retention that combines financing, land access, capacity development, technology, institutional support and market opportunities. These strategies correspond closely with the principal challenges identified in the study.

Table 3: Distribution of respondents according to strategies to improve retention of rural youth in agricultural activities n = 160

Strategies	Very Effective F (%)	Effective F (%)	Moderately Effective F (%)	Slightly Effective F (%)	Not Effective F (%)	WMS	Rank
Providing access to affordable credit and financial support	144(88.1)	15(9.4)	2(1.3)	2(1.3)	0(0.0)	3.84	1st
Offering regular agricultural training and skill development programmes	133(81.9)	24(15.0)	2(1.3)	3(1.9)	0(0.0)	3.77	3rd
Ensuring availability of land specifically for youth farming	136(85.0)	18(11.3)	2(1.3)	2(1.3)	2(1.3)	3.78	2nd
Establishing youth-focused agricultural cooperatives and networks	125(78.1)	23(14.4)	9(5.6)	2(1.3)	1(0.6)	3.68	5th
Providing mentorship and extension support from experienced farmers	114(71.3)	37(23.1)	7(4.4)	2(1.3)	0(0.0)	3.64	6th
Enhancing access to markets and value chain opportunities	120(75.0)	24(15.0)	12(7.5)	3(1.9)	1(0.6)	3.62	8th
Promoting use of modern farming technologies and innovations	131(81.9)	19(11.9)	7(4.4)	2(1.3)	1(0.6)	3.73	4th

Creating awareness campaign to improve agriculture's image among youth	108(67.5)	37(23.1)	7(4.4)	8(5.0)	0(0.0)	3.53	11th
Providing incentives such as awards, subsidies, or recognition programmes	116(72.5)	30(18.8)	10(6.3)	3(1.9)	1(0.6)	3.61	9th
Encouraging integration of agriculture into school and university curricula	117(73.1)	29(18.1)	12(7.5)	1(0.6)	1(0.6)	3.63	7th
Supporting community-led initiatives that engage youth in agricultural projects	119(74.4)	26(16.3)	10(6.3)	4(2.5)	1(0.6)	3.61	9th

Source: Field survey, 2025

Relationship between socio-economic characteristics and rural youth retention

The relationship between selected socio-economic characteristics and retention was tested using PPMC (Table 4). Age was positively and significantly related to retention ($r = 0.379$, $p < 0.001$), indicating a moderate association in which older youth recorded higher retention scores. The null hypothesis was therefore rejected for age. Household size ($r = 0.002$, $p = 0.975$) and years of schooling ($r = -0.072$, $p = 0.301$) were not significantly related to retention, so the null hypothesis was not rejected for these characteristics.

The positive association between age and retention may reflect the greater experience, family responsibilities and access to resources that usually accompany increasing age, and it suggests that younger members of the youth population are the most likely to disengage and may need more deliberate support. However, because years of experience was one of the indicators from which the retention score was derived, and experience tends to rise with age, part of this association may be built into the measure. The non-significant result for years of schooling indicates that formal education alone does not determine whether youth remain in agriculture; other factors, such as the access to finance, land, technology and infrastructure discussed above, may matter more. This contrasts with Fawole and Ozkan (2019), who associated willingness to participate in agriculture with educational status, although their outcome variable (willingness rather than retention) and respondents (unemployed graduates) differ from those of the present study. The non-significant result for household size suggests that household composition is not a major determinant of retention in this sample. These results are associations and should not be interpreted as causal effects.

Table 4: Pearson product moment correlation between socio-economic characteristics and retention of rural youth n = 160

Socio-economic characteristic	r-value	p-value	Remark	Decision on Ho1
Age	0.379	<0.001	Significant	Rejected
Household size	0.002	0.975	Not significant	Not rejected
Years spent in school	−0.072	0.301	Not significant	Not rejected

Source: Field survey, 2025

Conclusion and Recommendations

This study assessed rural youth retention in agricultural enterprises, the perceived challenges affecting retention and strategies for improving it in Ogbomoso Agricultural Zone, Oyo State, Nigeria. Retention was highest in crop production, followed by livestock production, and was very low in agro-processing; a substantial share of respondents were not engaged even in crop (32.5%) and livestock (42.5%) production. Lack of access to financial support was the leading challenge, followed by limited access to land and modern farming technologies and poor road networks and transportation difficulties, while insecurity, high input costs and unpredictable weather were also prominent. Age was positively and significantly related to retention, whereas household size and years of schooling were not.

Affordable credit and financial support was the highest-ranked strategy for improving retention, followed by access to farmland, agricultural training and skills development, and modern farming technologies. These results indicate that strengthening youth retention requires more than encouraging young people to enter agriculture. It also requires creating conditions that enable them to sustain agricultural activities and pursue viable livelihoods.

Based on the findings, the following recommendations are proposed:

1. **Improve access to youth-appropriate agricultural finance.** Government agencies, financial institutions and development partners should support transparent and accessible financing mechanisms, including appropriate loans, grants and input-financing arrangements for young agricultural entrepreneurs.
2. **Expand practical access to farmland.** Relevant stakeholders should explore secure and affordable land-leasing and allocation arrangements that allow young people to plan production over a reasonable period.
3. **Strengthen agricultural training, extension and mentorship.** Training should include practical production skills, farm management, financial literacy, agribusiness planning and the effective use of appropriate technologies. Partnerships with experienced farmers and extension professionals should support the application of these skills. Mentorship should give particular attention to younger and early-career farmers, who recorded lower retention scores.
4. **Promote appropriate agricultural technologies and youth-focused cooperatives.** Young farmers should be supported in accessing technologies suitable for their circumstances, while functional cooperatives can facilitate shared learning, collective purchasing and market connections.
5. **Support youth entry and retention in agro-processing.** Training, start-up finance and access to processing facilities should be targeted at young people interested in value addition, since retention in agro-processing was far lower than in crop and livestock production.

6. **Improve rural infrastructure and market access.** Investments in rural roads and transportation, alongside stronger links between young farmers and buyers, processors and other value-chain actors, should complement finance and training interventions.
7. **Monitor the outcomes of retention programmes.** Institutions introducing youth-oriented interventions should assess whether beneficiaries continue participating in agriculture over time, and identify which combinations of support produce durable benefits.

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