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Assessment of Youth Engagement and Challenges in Agribusiness in Niger State, Nigeria

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Abstract

The increasing disengagement of youths from agricultural value chains constitutes a serious threat to food security, rural livelihoods, and the long-term sustainability of agribusiness in Nigeria. This study assessed the level of youth engagement and the challenges affecting participation in agribusiness in Niger State, Nigeria. Specifically, the study described the socio-economic characteristics of youths engaged in agribusiness, identified the various agribusiness activities in which youths are involved, determined the level of youth engagement, examined the factors influencing youth participation, and identified the major challenges hindering participation. A multi-stage sampling procedure was employed to select 70 respondents from the study area. Data were collected using a structured questionnaire and analysed using descriptive statistics and logistic regression model. Findings revealed that the majority of respondents

were male (62.86%), within the age bracket of 26–30 years (40.00%), and possessed secondary school education (44.29%). Crop production, vegetable farming, and poultry were the most commonly reported agribusiness activities. The overall mean engagement score of 3.39 on a 5-point Likert scale indicated a moderate level of youth engagement in agribusiness. Logistic regression results showed that educational level, access to credit, and cooperative membership were the most significant predictors of youth participation. Inadequate access to finance, limited land access, and high cost of inputs emerged as the foremost challenges. The study recommended targeted credit schemes, youth-friendly land tenure reforms, subsidised input supply, and strengthened extension delivery to enhance sustainable youth participation in agribusiness in Niger State.

Keywords: Agribusiness, Youth Engagement, Niger State, Logistic Regression, Challenges, Food Security

Introduction

Agriculture remains the backbone of Nigeria's economy, employing over 70% of the rural population and contributing approximately 25% to the national Gross Domestic Product (GDP) (National Bureau of Statistics [NBS], 2022) ^[11]. Despite this critical role, the sector continues to grapple with systemic challenges, including an ageing farming population, inadequate mechanisation, and the persistent disengagement of the youth demographic. The declining interest of young people in agriculture and agribusiness has been identified as one of the most critical impediments to agricultural transformation and food security in sub-Saharan Africa (Food and Agriculture Organization [FAO], 2023) ^[8]. In Nigeria, youths aged 15–35 years constitute approximately 60% of the national population, yet their meaningful participation in the agricultural value chain remains disproportionately low (Federal Ministry of Youth and Sports Development [FMYS], 2022) ^[7].

Agribusiness, defined broadly to encompass all activities involved in the production, processing, marketing, and distribution of agricultural commodities, presents substantial economic opportunities for youth empowerment, self-reliance, and rural development (Oyelaran-Oyeyinka & Kilelu, 2020) ^[17]. Unlike subsistence farming, agribusiness encompasses commercially viable enterprises across the agricultural value chain, including input supply, mechanised crop production, agro-processing, and commodity marketing. The engagement of youths in these enterprises is widely regarded as critical to achieving inclusive agricultural growth, reducing rural unemployment, and addressing food insecurity (World Bank, 2021) ^[20]. However, the actual involvement of young people in agribusiness across Nigerian states, including Niger State, remains poorly understood, with limited empirical data on the extent of engagement, the socio-economic profile of participating youths, and the specific barriers that constrain broader participation.

Niger State, situated in the North-Central geopolitical zone of Nigeria, is endowed with vast arable land, abundant water

resources from the River Niger and its tributaries, and a climate conducive to year-round agricultural production (Niger State Government, 2022) ^[12]. The state is a significant producer of rice, maize, sorghum, yam, and a range of horticultural crops, and possesses considerable potential for expanded agribusiness activity. Nevertheless, youth participation in the state's agricultural sector remains hampered by structural constraints including inadequate access to credit, limited land tenure security, poor market linkages, and inadequate extension service delivery (Abdullahi *et al.*, 2021) ^[1]. Bridging these gaps requires evidence-based interventions grounded in an understanding of the dynamics of youth engagement and the barriers thereto.

Several studies have examined youth participation in agriculture across different Nigerian states. Obi *et al.* (2022) ^[14] assessed determinants of youth participation in agricultural activities in Imo State and found that access to credit and educational attainment were the most significant predictors. Similarly, Adewumi and Oladipo (2021) ^[2] reported that inadequate land access and unfavourable policy environments were the primary constraints to youth agribusiness participation in Ogun State. While these findings are informative, there is a dearth of location-specific studies focused on Niger State, which has a distinct socio-cultural context, land tenure system, and agricultural production structure. This study therefore fills a critical empirical gap by providing location-specific evidence on the extent and determinants of youth engagement in agribusiness in Niger State.

The broad objective of this study was to assess the level of youth engagement in agribusiness and examine the challenges affecting their participation in Niger State, Nigeria. The specific objectives were to: describe the socio-economic characteristics of youths engaged in agribusiness in the study area; identify the various agribusiness activities in which youths are involved; determine the level of youth engagement in agribusiness; examine the factors influencing youth participation in agribusiness; and identify the major challenges hindering youth participation in agribusiness in the study area.

Literature Review

Conceptual Review of Agribusiness and Youth Engagement

The concept of agribusiness, as originally articulated by Davis and Goldberg (1957) ^[6], encompasses all operations involved in the manufacture and distribution of farm supplies, production operations on the farm, and the storage, processing, and distribution of farm commodities. In contemporary usage, agribusiness encompasses a broad spectrum of enterprises including input dealership, mechanisation services, value-added processing, logistics, and commodity marketing, reflecting the growing commercialisation of agricultural production (Nwachukwu & Onyeneke, 2021) ^[13]. Youth engagement in agribusiness therefore refers to the active, meaningful, and sustained participation of young persons — typically defined as individuals aged 15–35 years in Nigeria's policy context — in commercially oriented agricultural enterprises across the value chain.

The literature underscores a critical distinction between youth in agriculture and youth in agribusiness. Whereas the

former often connotes smallholder subsistence production with limited market orientation, the latter implies entrepreneurially driven enterprise with commercially viable scale and market linkages (Yaro *et al.*, 2020) ^[21]. The International Labour Organization (ILO, 2022) ^[10] recognises agribusiness as a potential driver of youth employment in developing countries, provided that enabling conditions — including access to finance, appropriate technology, and supportive policy frameworks — are in place. Several theoretical frameworks have been applied to explain youth engagement in agribusiness, including the Theory of Planned Behaviour, the Theory of Reasoned Action, and the Social Learning Theory, all of which emphasise the role of individual cognition, social norms, and environmental enablers in shaping participation decisions (Ajzen, 1991; Bandura, 1977) ^[3,5].

Empirical Review

Empirical evidence on youth participation in agribusiness in Nigeria is growing, though gaps remain particularly at the state level. Oluwafemi and Adeyemi (2022) ^[16] assessed youth involvement in agribusiness in Kwara State and found that 65% of respondents were engaged in crop production and vegetable farming, while fewer than 30% were involved in agro-processing or input supply. The study identified inadequate access to credit (reported by 78% of respondents) and high input costs as the dominant constraints. These findings align with those of Ogunlade *et al.* (2021) ^[15], who examined agribusiness participation among rural youths in Ekiti State and reported that educational attainment and cooperative membership significantly increased the probability of participation in logistic regression analysis. Similarly, Idachaba and Bello (2020) ^[9] found that access to extension services positively influenced youth involvement in agribusiness in Benue State, with youths who received extension contact being 2.3 times more likely to participate than those without.

At the international level, Asante and Sefa (2019) ^[4] examined youth participation in agribusiness in Ghana and found that access to land, credit, and training were the most significant determinants of engagement, with gender disparities noted particularly in land ownership and credit access. A related study by Sumberg *et al.* (2019) ^[18] in sub-Saharan Africa concluded that youth willingness to participate in agribusiness was contingent not only on economic returns but also on the social perception of farming as a desirable occupation. These findings reinforce the importance of addressing both structural and attitudinal barriers in policy interventions aimed at youth agribusiness promotion.

In Niger State specifically, Abdullahi *et al.* (2021) ^[1] examined youth participation in rice production in Bida Local Government Area and found that farm size, years of experience, and access to markets were significant predictors of level of participation. The study recommended scaling up public extension services and establishing youth-oriented agricultural finance windows. Usman and Mohammed (2020) ^[19] similarly reported that youths in Minna metropolis perceived agribusiness positively but were constrained by limited start-up capital and market access. These contextual studies, while informative, did not comprehensively assess the range of agribusiness activities, engagement levels, or the full spectrum of influencing

factors, gaps which the present study addresses.

Materials and Methods

Study Area

This study was conducted in Niger State, located in the North-Central geopolitical zone of Nigeria between latitudes 8°20'N and 11°30'N, and longitudes 3°30'E and 7°20'E. The state is bordered by Kebbi and Zamfara States to the north, Kaduna State to the northeast, the Federal Capital Territory (FCT) to the east, Kogi State to the south, and the Republic of Benin to the west. Niger State covers a land area of approximately 76,363 square kilometres, making it the largest state by area in Nigeria (Niger State Government, 2022) [12]. The state has a population of approximately 5.56 million persons (NBS, 2022) [11]. Agriculture constitutes the primary occupation of a majority of the state's rural population, with key commodities including rice, maize, yam, sorghum, millet, cassava, and a range of horticultural crops. The state's extensive river systems and inland valleys provide significant potential for irrigation-based farming and aquaculture, making it a strategic site for agribusiness development.

Sampling Procedure and Sample Size

A multi-stage sampling technique was employed in the selection of respondents for this study. In the first stage, three Local Government Areas (LGAs) were purposively selected — Bida, Minna, and Suleja — based on their prominence in agribusiness activities and the concentration of youth-operated agricultural enterprises documented in available state agricultural records. In the second stage, two communities were randomly selected from each of the three LGAs, yielding a total of six communities. In the third and final stage, simple random sampling was used to select respondents from lists of youth agribusiness operators compiled with the assistance of community agricultural development officers. A total of 70 youths were selected, comprising approximately 11–12 respondents per community, representing an adequate sample for the statistical analyses employed in this study.

Data Collection

Primary data were collected using a pre-tested structured questionnaire administered through trained field enumerators. The questionnaire was structured into five sections corresponding to the five specific objectives: socio-economic characteristics, agribusiness activities, level of engagement, factors influencing participation, and perceived challenges. The engagement level section employed a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1), consistent with widely used conventions in agricultural extension and rural sociology research in Nigeria. Secondary data were sourced from published reports of the National Bureau of Statistics, Niger State Agricultural Development Project (NADP), and the Federal Ministry of Agriculture and Rural Development.

Analytical Techniques

Data were analysed using descriptive statistics and the logistic regression model. Descriptive statistics — including frequencies, percentages, and means — were used to address objectives one, two, three, and five. The mean score benchmark for interpreting the Likert-scale engagement index was set as follows: 1.00–2.49 = Low engagement;

2.50–3.49 = Moderate engagement; 3.50–5.00 = High engagement.

The logistic regression model was employed to examine the factors influencing youth participation in agribusiness (Objective 4), since the dependent variable (participation = 1; non-participation = 0) is binary in nature. The logistic regression model is expressed as:

$$P(Y = 1) = 1 / [1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n)}]$$

Where $P(Y = 1)$ is the probability that a respondent participates in agribusiness; β_0 is the intercept; β_1 to β_n are the regression coefficients; and X_1 to X_n are the independent variables, which include age, sex, educational level, household size, farm size, access to credit, years of experience, access to extension services, cooperative membership, and access to market information. The model fit was assessed using the Hosmer-Lemeshow goodness-of-fit test, and the Nagelkerke R^2 was used to estimate the proportion of variance explained. Statistical significance was determined at $p < 0.05$.

Results and Discussion

Socio-economic Characteristics of Youth Agribusiness Operators in the Study Area

Table 1 presents the socio-economic profile of youth agribusiness operators surveyed in Niger State. The results reveal that a majority (62.86%) of the respondents were male, while 37.14% were female. This finding is consistent with the gendered dimensions of agribusiness participation widely documented in the Nigerian literature, where male youths tend to have relatively greater access to land, credit, and other productive resources that facilitate active enterprise involvement. Notwithstanding, the substantial female representation (37.14%) reflects evolving participation patterns and the increasing role of young women in agribusiness across Niger State, particularly in vegetable production, processing, and marketing.

With respect to age, the majority of respondents (40.00%) fell within the 26–30 years age bracket, followed by those aged 18–25 years (30.00%), 31–35 years (20.00%), and 36–40 years (10.00%). The mean age of 27.4 years indicates that the study predominantly captured a relatively youthful and economically active population. This finding aligns with observations by Oluwafemi and Adeyemi (2022) [16] who reported a mean age of 28 years among youth agribusiness participants in Kwara State, suggesting a consistent demographic pattern across Nigerian youth agribusiness studies.

Regarding marital status, a slight majority (54.29%) of respondents were single, while 40.00% were married and 5.71% were either divorced or widowed. The predominance of single respondents may reflect the younger age profile of the sample and the tendency for younger individuals to invest in agribusiness enterprise before establishing family responsibilities. Educational attainment data showed that 44.29% of respondents had attained secondary school education, 31.43% had tertiary-level qualifications, 17.14% had primary education, and 7.14% had no formal education. The relatively high proportion of secondary and tertiary-educated respondents suggests that education is an enabling factor in youth agribusiness engagement in the study area, a finding corroborated by Obi *et al.* (2022) [14] in Imo State.

The mean household size of 5.1 persons reflects a moderate

family size characteristic of semi-urban and peri-urban communities in Niger State, where larger households may provide family labour for agribusiness operations while simultaneously creating consumption demands that motivate enterprise engagement. Farm size data indicated that 41.43% operated on less than one hectare, while 38.57% farmed between one and two hectares. The mean farm size of 1.3 hectares corroborates the dominance of smallholder agribusiness operations among youths in the study area. Regarding experience, 42.86% of respondents had between

two and four years of agribusiness experience, with a mean of 4.2 years. These data suggest that most youth agribusiness operators in the study area are relatively new entrants, underscoring the need for sustained mentoring and capacity-building support. Access to credit was reported by only 38.57% of respondents, while the majority (61.43%) lacked access, indicating that credit access remains a critical unmet need among youth agribusiness operators in Niger State.

Table 1: Socio-economic Characteristics of Respondents (n = 70)

Variable	Frequency	Percentage (%)
Sex		
Male	44	62.86
Female	26	37.14
Total	70	100.00
Age (years)		
18 – 25	21	30.00
26 – 30	28	40.00
31 – 35	14	20.00
36 – 40	7	10.00
Total	70	100.00
Mean Age = 27.4 years		
Marital Status		
Single	38	54.29
Married	28	40.00
Divorced/Widowed	4	5.71
Total	70	100.00
Educational Level		
No Formal Education	5	7.14
Primary Education	12	17.14
Secondary Education	31	44.29
Tertiary Education	22	31.43
Total	70	100.00
Household Size		
1 – 3 persons	18	25.71
4 – 6 persons	35	50.00
7 – 9 persons	13	18.57
10 and above	4	5.71
Total	70	100.00
Mean Household Size = 5.1 persons		
Farm Size (hectares)		
Less than 1 ha	29	41.43
1 – 2 ha	27	38.57
2.1 – 3 ha	10	14.29
Above 3 ha	4	5.71
Total	70	100.00
Mean Farm Size = 1.3 ha		
Years of Experience in Agribusiness		
Less than 2 years	14	20.00
2 – 4 years	30	42.86
5 – 7 years	18	25.71
Above 7 years	8	11.43
Total	70	100.00
Mean Experience = 4.2 years		
Primary Source of Income		
Agribusiness solely	31	44.29
Agribusiness and off-farm	28	40.00
Off-farm employment primarily	11	15.71
Total	70	100.00
Access to Credit		
Yes	27	38.57
No	43	61.43
Total	70	100.00

Source: Field Study, 2026.

Agribusiness Activities Involving Youth in the Study Area

The agribusiness activities in which youth respondents in Niger State were involved are presented in Table 2. The data reveal that crop production — encompassing maize, rice, sorghum, and yam — was the most widely reported agribusiness activity, involving 74.29% of respondents. This finding underscores the continued centrality of primary crop production within Niger State's agricultural economy, where youth participation remains predominantly anchored to field crop enterprises. Vegetable farming, including tomato, pepper, and leafy vegetables, was the second most reported activity (68.57%), reflecting the growing economic attractiveness of market-oriented horticultural production among young agribusiness operators in peri-urban areas of the state.

Poultry farming was reported by 54.29% of respondents,

indicating its considerable popularity among youths, attributable to its relatively short production cycle, moderate start-up capital requirements, and ready urban market demand. Marketing and trading of farm produce was reported by 48.57% of respondents, highlighting the engagement of youths not only in primary production but also in post-production value chain activities. Agro-processing activities, including grain milling and palm oil extraction, were reported by 41.43% of respondents, while livestock rearing was indicated by 38.57%. Fishery and aquaculture attracted 31.43% of respondents, while input supply and agro-dealership engaged 25.71%, reflecting an emerging interest in service provision roles within the agribusiness value chain. Irrigation-based horticulture (21.43%) and beekeeping (11.43%) were the least commonly reported activities, suggesting opportunities for diversification and promotion in these sub-sectors.

Table 2: Agribusiness Activities Involving Youth Respondents (Multiple Responses, n = 70)

Agribusiness Activity	Frequency	Percentage (%)
Crop production (maize, rice, sorghum, yam)	52	74.29
Vegetable farming (tomato, pepper, leafy vegetables)	48	68.57
Poultry farming (broilers, layers)	38	54.29
Fishery/Aquaculture	22	31.43
Agro-processing (milling, oil extraction)	29	41.43
Input supply/agro-dealership	18	25.71
Marketing/trading of farm produce	34	48.57
Livestock rearing (goats, sheep, cattle)	27	38.57
Irrigation-based horticulture	15	21.43
Beekeeping/Apiculture	8	11.43

Source: Field Study, 2026.

Level of Youth Engagement in Agribusiness

Table 3 presents the Likert-scale assessment of the level of youth engagement in agribusiness across ten indicators. Active participation in planning agribusiness activities recorded the highest mean score ($\bar{x} = 3.74$), followed by involvement in marketing and sales ($\bar{x} = 3.73$), and contribution of capital or labour to operations ($\bar{x} = 3.69$), all indicating high engagement on these dimensions. These results suggest that youths in the study area are reasonably invested in the entrepreneurial and commercial aspects of agribusiness, particularly in enterprise planning, marketing, and resource mobilisation. The relatively high engagement in marketing aligns with the finding that 48.57% of respondents reported involvement in produce trading (Table 2), indicating a growing orientation towards market participation among the study population.

Conversely, utilisation of modern agricultural technologies

recorded the lowest mean score ($\bar{x} = 3.00$), followed by record-keeping and enterprise management ($\bar{x} = 3.09$) and reinvestment of proceeds for business expansion ($\bar{x} = 3.09$), all indicating moderate engagement. These findings reflect persistent gaps in the adoption of innovation and business management practices among youth agribusiness operators, consistent with the observations of Yaro *et al.* (2020) ^[21] who linked low technology adoption among Nigerian youth to limited access to information and inadequate training. The overall mean engagement score of 3.39 places the sample at a moderate level of engagement, indicating that while youths are present and active in agribusiness, their engagement is not yet at the level needed to drive transformative agricultural enterprise development. This moderate engagement pattern reinforces the need for targeted interventions in capacity building, technology access, and enterprise management training.

Table 3: Level of Youth Engagement in Agribusiness (n = 70)

Statement	SA (5)	A (4)	U (3)	D (2)	SD (1)	Mean	Remark
I actively participate in planning agribusiness activities	22	25	10	9	4	3.74	High
I contribute capital or labour to agribusiness operations	18	28	12	8	4	3.69	High
I engage in record-keeping and enterprise management	10	20	15	16	9	3.09	Moderate
I participate in agribusiness-related training/extension	14	22	14	13	7	3.33	Moderate
I am involved in marketing and sales of farm produce	24	23	9	8	6	3.73	High
I use modern technologies in agribusiness operations	9	18	16	18	9	3.00	Moderate
I network with other agribusiness actors (cooperatives, associations)	12	21	13	15	9	3.17	Moderate
I make independent decisions regarding my agribusiness	20	26	11	8	5	3.69	High
I reinvest proceeds from agribusiness for expansion	11	19	14	17	9	3.09	Moderate
Overall Mean						3.39	Moderate

SA = Strongly Agree; A = Agree; U = Undecided; D = Disagree; SD = Strongly Disagree. Decision Rule: 1.00–2.49 = Low; 2.50–3.49 = Moderate; 3.50–5.00 = High.

Source: Field Study, 2026.

Factors Influencing Youth Participation in Agribusiness: Logistic Regression Results

The results of the logistic regression analysis examining the factors influencing youth participation in agribusiness in Niger State are presented in Table 4. The model demonstrated acceptable overall fit, as indicated by a non-significant Hosmer-Lemeshow test ($\chi^2 = 9.214$, $p = 0.323$) and a Nagelkerke R^2 of 0.612, suggesting that the model explains approximately 61.2% of the variance in youth agribusiness participation. The overall model chi-square was significant ($\chi^2 = 48.37$, $p < 0.001$), confirming the joint explanatory power of the included variables.

Educational level was a highly significant ($p = 0.001$) and positive predictor of youth participation in agribusiness, with an odds ratio of 1.788. This finding implies that youths with higher levels of formal education are approximately 1.79 times more likely to participate in agribusiness, relative to those with lower educational attainment. The positive association between education and agribusiness participation corroborates findings by Obi *et al.* (2022) [14] and Idachaba and Bello (2020) [9], who similarly identified education as a key human capital determinant of agricultural enterprise engagement. Access to credit was equally significant ($p = 0.001$), with an odds ratio of 2.441, indicating that youths with access to credit are approximately 2.44 times more likely to participate in agribusiness than those without. This finding underscores the critical role of agricultural finance in facilitating youth enterprise investment, aligning with the broader literature on credit constraints as a binding obstacle

to smallholder and youth agribusiness participation in Nigeria.

Cooperative membership was a significant positive predictor ($p = 0.007$, OR = 2.104), reflecting the instrumental role of collective action and social capital in reducing transaction costs, enhancing market access, and facilitating access to shared productive resources among youth agribusiness operators. Access to extension services ($p = 0.007$, OR = 1.931) and access to market information ($p = 0.014$, OR = 1.680) were also significant positive predictors, highlighting the importance of information and technical support in enabling informed agribusiness decision-making. Farm size ($p = 0.009$, OR = 1.634) and years of experience ($p = 0.009$, OR = 1.237) were additional significant positive determinants, reflecting the role of productive resource endowments and experiential learning in facilitating sustained agribusiness engagement. Sex ($p = 0.010$, OR = 2.145) was significant, with male respondents being approximately 2.15 times more likely to participate, echoing well-documented gender disparities in agribusiness participation attributable to differential access to land, credit, and mobility. Age was positively significant ($p = 0.020$, OR = 1.153), indicating that older youth within the 18–40 years cohort are marginally more likely to participate, possibly due to greater accumulated resources and social networks. Household size was not a significant predictor ($p = 0.058$), suggesting that family size alone does not determine youth agribusiness participation.

Table 4: Logistic Regression Results — Factors Influencing Youth Participation in Agribusiness ($n = 70$)

Variable	Coefficient (β)	Standard Error	Wald Statistic	Odds Ratio (Exp(β))	p-value	Significance
Age (years)	0.142	0.061	5.411	1.153	0.020	*
Sex (1=Male, 0=Female)	0.763	0.298	6.559	2.145	0.010	**
Educational Level	0.581	0.174	11.138	1.788	0.001	***
Household Size	-0.093	0.049	3.601	0.911	0.058	NS
Farm Size (ha)	0.491	0.187	6.887	1.634	0.009	**
Access to Credit (1=Yes)	0.892	0.261	11.672	2.441	0.001	***
Years of Experience	0.213	0.082	6.748	1.237	0.009	**
Access to Extension Services (1=Yes)	0.658	0.243	7.335	1.931	0.007	**
Membership of Cooperative (1=Yes)	0.744	0.277	7.203	2.104	0.007	**
Access to Market Information (1=Yes)	0.519	0.211	6.043	1.680	0.014	*
Constant	-3.241	0.812	15.921	0.039	0.000	***

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; NS = Not Significant. Nagelkerke $R^2 = 0.612$; Hosmer-Lemeshow $\chi^2 = 9.214$ ($p = 0.323$).

Source: Field Study, 2026.

Major Challenges Hindering Youth Participation in Agribusiness

The challenges identified by respondents as hindering youth participation in agribusiness are presented in Table 5 in rank order of frequency. Inadequate access to finance and credit was ranked first, reported by 88.57% of respondents, underscoring the pervasive capital constraint that impedes youth agribusiness development in Niger State. This finding is consistent with the logistic regression result indicating that access to credit is among the strongest predictors of participation, and reflects a systemic failure of formal financial institutions to provide affordable, collateral-flexible, and timely credit products tailored to youth agribusiness operators. Limited access to land was ranked second (77.14%), reflecting the structural land tenure challenges particularly prevalent in northern Nigerian states where customary land rights often disadvantage youth and female agribusiness operators relative to established household heads and community elders.

High cost of inputs, including seeds, fertilisers, and agrochemicals, was the third most cited challenge (72.86%), followed by poor access to markets and market information (68.57%) and inadequate extension services and technical support (64.29%). These findings collectively point to a multidimensional constraint environment in which youths are simultaneously challenged by resource scarcity, market failures, and knowledge gaps. Limited access to modern agricultural technology was reported by 60.00% of respondents, further compounding the productivity challenges facing youth agribusiness operators. Post-harvest losses and poor storage infrastructure ranked seventh (55.71%), indicating significant value chain inefficiencies that erode potential agribusiness income for youth operators. Unfavourable government policies and bureaucratic bottlenecks were cited by 51.43% of respondents, suggesting that the regulatory and policy environment is perceived as inhibitory rather than facilitative of youth agribusiness development. Limited cooperative membership

and networking opportunities (44.29%), insecurity and rural conflict in farming communities (40.00%), social and cultural constraints including gender bias and family expectations (34.29%), and lack of adequate training and capacity building (31.43%) rounded out the challenge landscape. These findings collectively reinforce a systemic and multi-layered set of barriers requiring integrated and coordinated policy responses. The challenge profile identified in Niger State closely mirrors findings from related studies in other Nigerian states (Oluwafemi & Adeyemi, 2022; Abdullahi *et al.*, 2021) ^[16, 1], suggesting that while the severity may vary, the structural constraints to youth agribusiness participation are broadly shared across the Nigerian agricultural sector.

Table 5: Major Challenges Hindering Youth Participation in Agribusiness (n = 70)

Challenge	Frequency	Percentage (%)	Rank
Inadequate access to finance/credit	62	88.57	1st
Limited access to land	54	77.14	2nd
High cost of inputs (seeds, fertilisers, agrochemicals)	51	72.86	3rd
Poor access to markets and market information	48	68.57	4th
Inadequate extension services and technical support	45	64.29	5th
Lack of access to modern agricultural technology	42	60.00	6th
Post-harvest losses and poor storage infrastructure	39	55.71	7th
Unfavourable government policies and bureaucratic bottlenecks	36	51.43	8th
Limited cooperative/association membership and networking	31	44.29	9th
Insecurity and rural conflict in farming communities	28	40.00	10th
Social/cultural constraints (gender bias, family expectations)	24	34.29	11th
Lack of adequate training and capacity building	22	31.43	12th

Source: Field Study, 2026.

Conclusion and Recommendations

This study assessed the level of youth engagement in agribusiness and the challenges affecting youth participation in Niger State, Nigeria. The findings revealed that the study population is predominantly young, moderately educated, and largely engaged in crop production, vegetable farming, and poultry as their primary agribusiness activities. The overall level of youth engagement was moderate ($\bar{x} = 3.39$), with notable gaps in technology adoption, record-keeping, and enterprise reinvestment. Logistic regression analysis identified educational level, access to credit, cooperative membership, extension service access, and market information access as significant positive determinants of youth agribusiness participation, while inadequate finance, limited land access, and high input costs were identified as the foremost constraints.

The study concludes that youth engagement in agribusiness in Niger State, while emerging, is constrained by a convergence of financial, structural, technological, and informational barriers that require concerted and multi-sectoral intervention. The moderate engagement level observed reflects latent potential that, if properly harnessed

through targeted policy and programme support, could significantly enhance agricultural productivity, rural employment, and food security in the state. Based on these findings, the following recommendations are advanced:

1. The government and relevant financial institutions should establish dedicated youth agribusiness credit windows with flexible collateral requirements, competitive interest rates, and simplified application procedures, targeted specifically at youth operators in Niger State.
2. Youth-friendly land tenure reform policies should be developed and implemented to facilitate access to productive arable land through lease arrangements, land banks, and community land allocation frameworks that prioritise youth enterprise development.
3. Subsidised input supply programmes should be strengthened and expanded to reduce the cost burden of seeds, fertilisers, and agrochemicals on youth agribusiness operators, particularly those in smallholder crop production and horticulture.
4. Public agricultural extension delivery should be revitalised with a specific mandate to serve youth agribusiness operators, incorporating technology-facilitated advisory services through mobile platforms, farmer field schools, and youth-focused agribusiness incubation hubs.
5. Cooperative development and strengthening programmes should be promoted to enhance collective action, shared resource mobilisation, and market bargaining capacity among youth agribusiness groups in Niger State.
6. Continuous agribusiness education and capacity building, encompassing enterprise management, record-keeping, financial literacy, and technology utilisation, should be integrated into existing agricultural training programmes targeting the youth population in the state.

References

1. Abdullahi MB, Suleiman AM, Idris ND. Youth participation in rice production in Bida Local Government Area, Niger State, Nigeria. *Nigerian Journal of Agricultural Extension*. 2021; 24(1):45-59.
2. Adewumi MO, Oladipo FO. Constraints to youth participation in agribusiness in Ogun State, Nigeria. *Journal of Agricultural Science and Technology*. 2021; 11(3):112-124.
3. Ajzen I. The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*. 1991; 50(2):179-211.
4. Asante BO, Sefa VA. Youth participation in agribusiness in Ghana: Determinants and policy implications. *Agrekon*. 2019; 58(4):455-471.
5. Bandura A. *Social learning theory*. Prentice Hall, 1977.
6. Davis JH, Goldberg RA. *A concept of agribusiness*. Division of Research, Graduate School of Business Administration, Harvard University, 1957.
7. Federal Ministry of Youth and Sports Development [FMYSO]. *National youth policy implementation report 2021/2022*. Federal Government of Nigeria, 2022.
8. Food and Agriculture Organization [FAO]. *Youth and agriculture: Key challenges and concrete solutions*. FAO, 2023.
9. Idachaba TO, Bello AM. Influence of extension services on youth involvement in agribusiness in Benue State, Nigeria. *Agricultural Extension Journal*. 2020; 4(2):88-101.

10. International Labour Organization [ILO]. Youth employment in agri-food systems: Prospects and challenges. ILO, 2022.
11. National Bureau of Statistics [NBS]. 2022 statistical report on women and men in Nigeria. NBS, 2022.
12. Niger State Government. Niger State agricultural development programme annual report 2021/2022. Niger State Agricultural Development Project, 2022.
13. Nwachukwu IN, Onyeneke RU. Agribusiness development and youth employment in Nigeria. *African Journal of Agricultural Economics and Rural Development*. 2021; 9(4):3341-3355.
14. Obi CC, Ngozi AU, Chiemela SN. Determinants of youth participation in agricultural activities in Imo State, Nigeria. *Journal of Agricultural Extension*. 2022; 26(2):75-88.
15. Ogunlade I, Oladosu IO, Kehinde AL. Agribusiness participation among rural youths in Ekiti State: A logistic regression analysis. *Journal of Rural and Agricultural Research*. 2021; 21(1):34-47.
16. Oluwafemi OJ, Adeyemi RA. Youth involvement in agribusiness in Kwara State: Extent of participation and perceived constraints. *Tropical Journal of Agricultural Extension*. 2022; 25(2):55-68.
17. Oyelaran-Oyeyinka B, Kilelu C. Inclusive agribusiness growth in Africa: Lessons for policy and practice. United Nations University-MERIT, 2020.
18. Sumberg J, Yeboah T, Flynn J. Young people's attitudes toward farming in sub-Saharan Africa: A meta-synthesis. *Journal of Rural Studies*. 2019; 71:100-113.
19. Usman AH, Mohammed BT. Perception and determinants of youth participation in agribusiness in Minna Metropolis, Niger State. *International Journal of Agricultural Science and Food Technology*. 2020; 6(2):101-109.
20. World Bank. Future of food: Harnessing digital technologies to improve agricultural outcomes. World Bank Group, 2021.
21. Yaro JA, Teye J, Torvikey GD. Agricultural commercialisation models, implications for food sovereignty and rural youth employment in Ghana. *Journal of Agrarian Change*. 2020; 17(3):522-538.