



**ASSESSMENT OF FACTORS INFLUENCING YOUTH PARTICIPATION IN
AGRICULTURAL-BUSINESS IN WESTERN AGRICULTURAL ZONE OF
BAUCHI STATE, NIGERIA**

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ABSTRACT

The study examines the factors influencing youth participation in agricultural business in the western agricultural zone of Bauchi state. The data were collected using structured questionnaire and were analyzed using descriptive and inferential statistics. Multi stage random sampling technique was used in selecting 384 respondents. The results revealed that 36.4% and 34.5% of the respondents were within the age bracket of 25-29 and almost all (97.3%) of the respondents were males and most (63.6%) were married. The result also showed that more than half (59.1%) of the respondents had primary education while 24.5%, and 16.4% of the respondents had secondary, and higher education, respectively. The results further reveal that 41.8% of the respondents had 1-2 persons as their households. The occupational distribution of respondents showed that most (86.4%) of the respondents were business people (traders) and 13.6% were civil servants and had been in agribusiness for 1-5 years (10.0%), 39.1% for 5-9 years with majority (61.6%) not having agribusiness background while only 38.4% indicated to have agribusiness background. Different types of agribusiness youths participated in the study area were identified in which almost all (97.6%), (94.3%) and (86.5%) of the youths participated in livestock business, agro-marketing and crop production, respectively with majority (62.4%). The results further depicted educational level, access to extension and access to credit were found to be positively significant at 5% levels of significance. The constraints to youths' participation in agribusiness were poor infrastructure such as roads, electricity, derailed support for local industries and negative impacts of climate change were ranked 1st, 2nd and 3rd. It was concluded that youth's participation in agribusiness in the study area is low with more participation in crop and livestock production, level of education, access to extension service and credit facilities were significantly influencing youth participation in agribusiness ($P = 0.045$, $P = 0.043$ and $P = 0.037$ respectively). A lot of challenges constrained youth's participation in agribusiness but they are mostly institutional. The study recommended that; extension and advisory services be improved to enable access to timely and relevant agricultural information, capacity building programmes should be organized to boost the skills of the youth in agricultural businesses, robust agricultural policies should be formulated and implemented. There should be efforts to improve youth attitudes by promoting the willingness and ability to engage in agribusiness, innovative ideas, and positive perceptions and access to credit facilities should be increased through loans from commercial banks cooperative savings.

Keywords: Agricultural-business, Assessment, Youth participation, Nigeria, Sampling.

INTRODUCTION

Africa has abundant natural and human resources, but they are often underutilized in a sustainable manner (Ali & Salisu, 2019). The efficient use of these resources is interdependent,



as the management of natural resources relies on the development and management of human resources. Poor management of both resources has resulted in high unemployment, underemployment, high crime rates, hunger, and malnutrition in many African countries (Ali & Zulfiqar, 2018; Ebeke & Etoundi, 2017; Maldonado & Stanislao, 2015), requiring urgent policy action. The majority of Africa's human resources are in the younger generation, which makes up 60-70% of the population (African Economic Outlook Report, 2017; Awogbenle & Iwuamadi, 2010). As a result, youth unemployment has become a pressing issue in many African countries, including Nigeria. According to Trading Economics (2018), Nigeria's youth unemployment rate reached its highest level of 33.10% in Q3 2017, compared to 11.70% in Q4 2014, averaging 21.73% over three years. Engaging young people in agribusiness could help to reduce youth unemployment, improve poverty, increase food security, and boost economic development (Yami *et al.*, 2019). Clearly opportunities exist for directing youths toward agribusiness, and if done in an inclusive manner would result to societal and economic benefit. According to the report, unemployment rate in Nigeria has risen from 21.1% in 2010 to 23.9% in 2012. This figure shows that one out of every four Nigerians is unemployed. The report also claimed that Nigeria has one of the worst youth unemployment rates in Africa sub-Sahara at 37.7%. By further analysis, it means that among every five Nigerian youth, two are unemployed. This condition can be traced to over dependence on white collar job, oil boom and rural-urban migration. The overall effect of this situation is that Nigerian may face more youth unrest and restiveness as well as engagement in anti-social activities and economic sabotage like armed robbery, oil bunkering, kidnapping, internet syndicate that has caused serious damage to the image of the country as well as hunger due to lack of food production via shortage of production on commercial scale.

The broad objective of the study was to assess the factors influencing youth participation in agricultural-business in the Western Agricultural Zone of Bauchi state, Nigeria. The specific objectives were to;

- i. describe the socio-economic characteristics of the youths in the study area;
- ii. Identify the type of agribusiness youth participated in the study area;
- iii. examine the factors influencing youth participation in agribusiness in the study area;
- iv. describe the constraints militating towards youth participation in agribusiness in the study area.

MATERIALS AND METHODS

The Study Area

The study area is the Western Zone of the Bauchi State Agricultural Development Program, which comprises seven Local Government Areas (Alkali, Bauchi, DASS, Kirfi, Tafawa Balewa, and Toro). The population of the zone is 1,977,379 (NPC, 2018). The zone is located in the Northern Guinea Savannah and is situated between latitudes 9°30' N and 12°03' N, and longitudes 80°50' E and 110°37' E of the Greenwich Meridian. The zone has a land area of 24,270,701 km², with approximately 8 million hectares of cultivable land, of which only 1 million hectares is being utilized (BSADP, 2019). The average rainfall distribution in the zone ranges from 600-1200mm, with a rainy season lasting for about 170 days. The temperature ranges from 9.1°C in Dec/Jan to a maximum of 40.5°C between April/May. The major crops cultivated in the area include Sorghum, Maize, Rice, Groundnuts, Soya Beans, Cowpea, and Onion during the rainy season, and crops such as Tomato, Onion, Melon, and Amaranthus during the dry season.



Sampling technique and Sample Size

Stratified and random sampling was used to select 384 respondents from a sample frame of 7560 youth that currently engage in agribusinesses groups in the Western agricultural zone of Bauchi state. The list was obtained from the Bauchi State Agricultural Development Programme (BSADP) Bauchi. The population of interest was large, and the study used the formula recommended by Fisher (1998) to compute the sample size. A more heterogeneous population requires a large sample size to obtain the most desired precision level, whereas a homogeneous population requires a small sample size. The study used a maximum variability of 0.5. The formula used to determine the sample size was as follows:

$$n = (Z^2 p(1-p)) / d^2$$

where;

n is the sample size, Z is the normal deviation at the desired confidence interval (95% in this case), p is the proportion of the population with the desired characteristic, Q is the proportion of the population without the desired characteristic, and d is the degree of precision (0.5% in this case).

The sample size of 384 was determined by computing the formula:

$$n = (1.96)^2 * (0.5) * (0.5) / (0.005^2) = 384$$

Method of Data Collection

The study used both primary and secondary data. Primary data were collected using a structured questionnaire. Self-administered drop and pick questionnaires were distributed among youths in the selected five Local Government Areas of the Western agricultural zone of Bauchi State.

Method of Data Analysis

The study employed the use of both descriptive and inferential statistics in analyzing the data collected. The statistical techniques used to organize the data into a meaningful form include frequency distribution, tables, figures, and percentages. This was used to achieve objective i, ii and vi. The inferential statistics used was regression analysis to achieve objective iii.

$$Y \text{ (Yes/No)} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

where;

Y = (Yes/No) Youths participation in Agribusiness (Dependent Variable)

X₁ = Age (in years)

X₂ = Sex (Male = 1, Female = 2)

X₃ = Educational level (primary =1, secondary =2, tertiary = 3, no education = 4)

X₄ = Marital status (single =1, married =2, divorced = 3, separated = 4,

X₅ = Household size (in number)

X₆ = Farm size (in hactre)

X₇ = Years of farming experience (in years)

X₈ = (Membership of Association (1= member, 2= non-member)

X₉ = Access to Credit (1 = yes, 2 = no)

X₁₀ = Access to Land (1 = yes, 2 = no)

X₁₁ = Perceived Benefits (1 = yes, 2 = no)

X₁₂ = Access to extension service (1 = yes, 2 = no)

X₁₃ = Income (in naira)

e = error term



RESULTS AND DISCUSSION

Socio-economic Characteristics of the Respondents

Table 1 revealed that 36.4% and 34.5% of the respondents were within the age bracket of 25-29 and 20-24 respectively. Respondents that fall within 15-19 and 30-34 years of age constitute 10.9% each while and only 7.3% were 35 years and above. The findings indicated that a majority of the youth were at an active age and could contribute their energy, physically, mentally, and otherwise to boost agriculture (Adebayo, 2006). The results also showed that almost all (97.3%) of the respondents were males, while only 2.7% were females. According to Adebayo (2006), gender is not a barrier to active participation in agricultural production activities. However, it is generally believed that males are more energetic and readily available for energy-demanding jobs such as agribusiness. The low percentage of female youth participating in agribusiness could be attributed to the fact that females in the study usually participated in several other activities outside of farming, such as food venturing and hair dressing (Adebayo, 2006). The study also indicated that most (63.6%) of the respondents were married and 36.4% were single. This could give the male an opportunity to have more households which could be a source of labour for their agribusiness. Table 1 showed that more than half (59.1%) of the respondents had primary education while 24.5%, and 16.4% of the respondents had secondary, and higher education, respectively. According to Arnon (2007), education is an important socio-economic variable and a form of human capital for agricultural development. Similarly, Ogunbameru (2001) noted that education likely enhances the adoption of modern farm technologies by youth, sustaining a strong farming population. Ojuekaiye (2001) posited that education influences farmers' decisions due to its impact on farmers' awareness, perception, reception, and adoption of innovations that can lead to increased production. With a high percentage of educated youth, their education is expected to enhance adoption of recommended agricultural practices in the study area.

The results indicated that 41.8% of the respondents had 1-2 persons as their households. While 30.9% had household size between 3-4. Respondents that have household size between 5-6, 7-7, and above 8 persons constitutes 16.4%, 8.2% and 2.7%, respectively. This household size is understandable as the respondents are youth with latent energy and agricultural production is expected to increase and food security is assured (Ogunbameru, 2011). The occupational distribution of respondents showed that most (86.4%) of the respondents were business people (traders) and 13.6% were civil servants who combine their jobs with farming, this result is in line with Bakare (2003) who stated that civil servants have the advantage of combining their work with farming, making them innovators in terms of technology adoption.



Table 1: Socio-Economic Characteristics of Respondent (n = 245)

Variables	Frequency	Percentage
Age(years)		
15-19	27	10.9
20-24	85	34.5
25-29	140	36.4
30-34	89	10.9
35-40	18	7.3
Sex		
Male	238	97.3
Female	7	2.7
Marital Status		
Single	89	36.4
Married	156	63.6
Educational Type		
Primary education	145	59.1
Secondary education	60	24.5
Tertiary education	40	16.4
Household size		
1-2	102	41.8
3-4	76	30.9
5-6	40	16.4
7-8	20	8.2
8-9	7	2.7
Farming Experience (Years)		
1-5		
5-9	24	10.9
10-14	96	39.1
15-19	71	29.1
20-24	40	16.4
Occupation	13	5.4
Trading		
Civil servant	211	86.4
	33	13.6

Source: Field Survey, 2019

The result in Table 1 also showed that 10.0% of the respondents had been in agribusiness for 1-5 years, 39.1% for 5-9 years, and 29.1% for 10-14 years. As experience increases with age, the length of time in agribusiness can be linked to the age of farmers. With the experience of the respondents, it is expected that they will make sound decisions regarding resource allocation and management of their agribusiness. Youth play a significant role in leadership and politics, as they are less conservative and more receptive to change (Adesope, 2009). This can translate to their willingness to adopt new technologies and management practices in agribusiness, contributing to the overall development of the sector.



Type of Agribusiness Youths Participated in the Study Area

The result in Table 2 reveals the different types of agribusiness youths participated in the study area in which almost all (97.6%), (94.3%) and (86.5%) of the youths participated in livestock business, agro-marketing and crop production respectively. The result is in line with the report of Ajayi and Ojediran (2016) that youths participated in crop farming (79%) showing an overwhelming preference over livestock farming (30%) (Auta, 2010). Similarly, Ajayi and Ojediran (2006) reported that marketing, storage and processing were the activities more in consonance with their interest compared to another agricultural task. In disagreement, Yusuf *et al.* (2021) reported that youths participated more in crop cultivation. Apparently, crop cultivation seems popular because majority of respondents examined practice crop cultivation more than other forms of agribusiness. Agribusiness provide employment opportunities for youths in developing countries like Nigeria. About 47.8%, 43.7% and 83.7% of youths participated in agro processing, middlemen business and farm labour respectively. Similarly, youth involved in crop production and farm labour was also found out by (Gwanya *et al.*, 2011).

Table 2: Respondents based on Type of Agribusiness Youths Participated (n = 245)

Type of agribusiness	*Frequency	Percentage
Crop production	212	86.5
Livestock business	239	97.6
Agro processing	117	47.8
Agro marketing	231	94.3
Agro consultant	2	0.8
Tractor/Implement/Tools hiring services	45	18.4
Inputs dealer	8	3.3
Value addition	8	3.3
Middle man	107	43.7
Agro-allied industry	12	4.9
Farm labour	205	83.7

*Multiple Response

Source: Field Survey (2019)

Factors Influencing Participation of Youth in Agribusiness

The result from the Table 3 reveals that socioeconomic factors had influence over respondents' level of participation in the study area. Educational level, access to extension and access to credit were found to be positively significant at 5% levels of significance which implies that one unit increase in educational level, access to extension and access to credit will lead to one unit increase in the level of respondents' participation in the study area. However, age, gender, marital status, other occupation, household size, farming experience, membership of association, access to training, access to land, income, farm size and agribusiness background were not significant and had no influence on respondents' participation in agribusiness in the study area. The results agreed with Adesina and Eforuoku (2020) found that in Ondo State, Nigeria, educational level had a positive and direct relationship with participation in agribusiness activities. This means that the more educated the youths are the higher their participation in agribusiness activities. Educated youths are more likely to engage in agribusiness than uneducated ones. This is because education widens their sources of information on agriculture. Akinwekomi *et al.* (2017) found education as among the determinants of youths' participation in agribusiness in Ondo State, Nigeria. Monthly

income and sources of funds were other determinants of youths' participation in agribusiness activities. According to the result, the higher the monthly income of the youths the more likely they are to participate in agribusiness activities. Sources of the fund and monthly income are the key factors that influence youth's decisions to participate in agribusiness activities. Diversification of agricultural enterprises requires money and this will increase with an increasing income (Enugwu *et al.*, 2022). In contrary to this finding, Enugwu *et al.* (2022) reported that age ($t = -3.4$), household size ($t = 2.5$), educational level ($t = 4.0$), sources of fund ($t = 3.6$) and monthly income ($t = 3.1$) determined youth's participation in agribusiness in Imo State, Nigeria.

Table 3: Factors Influencing Youths Participation in Agribusiness

Variables	B	Std. Error	Beta	T	Sig.
(Constant)	.905	.261		3.465	.001
Age of Respondent	.001	.002	.037	.556	.579
Gender of Respondent	-.081	.060	-.091	-1.345	.180
Marital Status	-.014	.027	-.035	-.534	.594
Education Level	.044	.022	.138	2.013	.045**
Other Occupation	.021	.021	.070	1.028	.305
household size	.001	.004	.028	.416	.677
Farming experience in years	.001	.003	.030	.444	.657
Membership of association	.008	.059	.009	.140	.889
Access to extension	.115	.056	.136	2.038	.043**
Access to credit facilities	.116	.055	.137	2.098	.037**
Access to training	-.069	.055	-.083	-1.241	.216
Access to land	-.113	.086	-.090	-1.307	.192
Income	2.398E-10	.000	.000	.003	.997
Farm Size in Hectares	.022	.049	.029	.442	.659
Agribusiness Background	.021	.056	.025	.372	.710

Source: Field Survey (2019)

Constraints Militating Against Youth Participation in Agribusiness

The finding of this study reveals those numerous constraints limit participation in agribusiness activities. The results from Table 4 further reveal the various constraints militating against youths' participation in agribusiness in which poor infrastructure such as roads, electricity, derailed support for local industries and negative impacts of climate change were the major constraints and ranked 1st, 2nd and 3rd. Mibey (2016) reported a similar finding that lack of infrastructure leads to high cost of travel and goods transportation making agriculture less attractive to the youth. Limited agricultural services, scarce access to basic needs such as electricity and safe water, telecommunication services and poor road networks make it hard for the youth to start business in agricultural sector. The under-developed infrastructure and rural services translate transaction costs for agricultural producers.

This result also is in agreement with the report of Richard *et al.* (2020) that access to land by the youth is another impediment hindering their involvement in agribusiness. These findings concurred with findings by World Bank (2014) that land prices drive away the youth



from farming. Kadzamira and Kazembe (2015) further adds that due to high population growth rates and continued cultivation, young farmers inherit marginal land. Similarly, Richard *et al.* (2020) reports indicate that the agricultural sector is prone to high uncertainty due to climate change. For example, FGDs in Chikwawa and Mwanza revealed that agriculture is highly exposed to drought and floods and this prevents the youth from engaging in farming as a source of livelihood. The constraints that were ranked 4th, 5th and 6th were low access to formal loan, insurance cover and presence of better job opportunities in other sectors, respectively.

Table 5: Constraints to Youth Participation in Agribusiness (n = 245)

Constraints	*Frequency	Percentage	Ranking
Poor Infrastructure such as Roads, Electricity	244	99.6	1 st
Derailed support for local industries	239	97.6	2 nd
Negative Impacts of Climate Change	235	95.9	3 rd
Low access to formal loan	235	95.9	4 th
Insurance cover	232	94.7	5 th
Better job opportunities in other sectors	203	82.9	6 th
Shortage of agro-allied industries	180	73.5	7 th
Limited Access to Land	176	71.8	8 th
Limited Access to Extension Services	163	66.5	9 th
Limited Access to Financing	158	64.5	10 th
Lack of laudable policies on agribusiness	154	62.9	11 th
Gender/Sex discrimination	154	62.9	12 th
Poor Markets and Information on Marketing	137	55.9	13 th
Storage facilities	135	55.1	14 th
Bureaucratic business registration	130	53.1	15 th

*Multiple Response

Source: Field Survey, (2019)

Other constraints indicated by the youths towards their participation in agribusiness in the study area comprises shortage of agro-allied industries, limited access to land, limited access to extension services, limited access to financing, lack of laudable policies on agribusiness gender/sex discrimination, poor markets and information on marketing, storage facilities, and bureaucratic business registration ranked 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, and 15th, respectively. The result agreed with Enugwu *et al.* (2022) reported that access to information and knowledge, markets availability, lack of specialized skills in agribusiness interest areas and non-supportive legislative framework were the constraints to participation in agribusiness by the youths. Adio *et al.* (2016) also reported that lack of information can lead to a poor decision which can ruin investments in agribusiness ventures and through agricultural information, farmers adopt new technologies or farming systems. Access to information and knowledge is vital for a successful engagement in agribusiness ventures. Information guides decision-making in agriculture. Information contributes significantly to agricultural production.

Lack of a supportive legislative framework has hindered agricultural development greatly in developing economies. Policies are important for the development of the agricultural sector. This is because they promote access to resources such as land, capital and advisory services. They also regulate the market and the behaviour of the operators. Policies lead to the development of programmes and projects that would aid agriculture (Enugwu *et al.* 2022).



Access to land is fundamental to starting a farm. The FAO (2011) indicates that for youth to engage in farming, they need to have access to land. However, empirical evidence shows that the majority of the youth in developing countries do not access and own land which is a key resource in agricultural production. Mostly, it is their parents who hold title to the land that the youth use for agricultural production. Other studies in Sub-Saharan Africa show that inheritance laws and customs often make the transfer of land to young women prohibitive.

CONCLUSION AND RECOMMENDATIONS

The study concluded that youth's participation in agribusiness in the study area is low. They participated more in crop and livestock production. Level of education, access to extension service and credit facilities significantly influence youth participation in agribusiness ($P = 0.045$, $P = 0.043$ and $P = 0.037$ respectively). A lot of challenges constrained youth's participation in agribusiness but they are mostly institutional. Based on the findings of the study, the following recommendations were made;

1. Extension and advisory services be improved to enable access to timely and relevant agricultural information. This can be achieved by adequately funding extension services.
2. Capacity building programmes should be organized to boost the skills of the youth in agricultural businesses. This can be done through the organization of workshops, conferences and seminars.
3. Robust agricultural policies should be formulated and implemented. This can be achieved by ensuring adequate interaction with all the relevant stakeholders.
4. There should be efforts to improve youth attitudes by promoting the willingness and ability to engage in agribusiness, innovative ideas, and positive perceptions.

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