ASSESSMENT OF ADULT FARMERS' PARTICIPATION IN AGRICULTURAL DEVELOPMENT IN DELTA STATE OF NIGERIA

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Abstract

The study focused on adult farmers in Delta State of Nigeria and assessed both the personal and socio-economic characteristics of the respondents, the type of farm enterprises they were involved and constraints experienced while participating in operation. Data were elicited from 270 adult farmers from 3 local government areas of the state and were analyzed using frequency tables, T-test and logistic regression. The result showed age range of the responds to be between 45-49 years (65.93%) and those above 49 year were 34 percent. Male respondents were 89.20% of the sampled farmers and 95.7 % were married. Majority of the respondents had a low household-size of between 1-5 representing 93.00%. Most (45.90%) of the respondents had Primary education while respondents without formal education were 27.00%. The mean farm size of the respondents was 1.9 ha which indicated that they had access to sizable hectares of farmland. The mean income of the respondents was ₦115, 079.63 crop production as their favourite enterprise recording (54.81%) while those that combined enterprises recorded 33.25%. Respondents' level of contact with agricultural extension agents was impressive (30.00%) and only 26.00% were without extension contact. However the major constraints experienced by the respondents were lack of infrastructural facilities such as roads, water, storage and processing facilities. Others are Markets and finance. It is therefore recommended that extension services should be improved in order to increase level of awareness. Infrastructural facilities should be made available to ease their operation and improve value addition. Marketing links should be provided to expand their market horizon, increase their level of income and improving their living standard.

Keywords: Participation, Adult, Extension, Farmers**.**

Introduction

In Nigerian economy, Agriculture is reported as a very imperative sector with a high potential of employment generation, poverty reduction and food security potentials that are yet to be taped (FMARD, 2011). Corroborating FMARD, (2011), Jeter (2004) described Agricultural development as a powerful stimulus to economic growth, improved food security, national and regional trade, and employment generation. But lamented that Agricultural productivity in the country had seriously deteriorated over the past two decades and, as a result, rural poverty is rampant despite Adeyekunu (1990)'s rating of Agriculture as the utmost significant enterprise and remain the backbone of our Nigeria's economic development.

Ajayi (2014) identified Agricultural Extension services as a great institutional input that could contribute a great deal to agricultural development in Nigeria. The author further emphasized that farmers need to be mindful of the constant changes that are recorded in new agricultural technological innovations which could be exploited for their inherent yield potentials. Jamilah, *et al.* (2010). re-echoed the significant role of Agricultural Extension in promoting the adoption of new technologies and innovations through awareness creation and further communication that could educate farmers so as to improve their knowledge, attitude and skills which is a panacea for improved productivity.

UNICEF (2008) highlighted that the Nigeria is endowed with abundant human and natural resources that could enhance production and the opportunity could be exploited to improve yield but noted that 7% of the Nigeria populace live in the rural areas and about 9% of the rural dwellers are engaged in agricultural production.

Who is an adult farmer? Many authors ascribe various definition to the etymology of the word adult. A young adult is generally a person in the age range of 20 to 39 (or 40), although definitions and opinions, such as Erik Erikson's stages of human development, vary. The young adult stage in human development precedes middle adulthood. A person in the middle adulthood stage ages from 40 (or 41) to 64. In old age, a person is 65 years old or older (Erikson, 2009). In this study, an adult farmer is considered as one above forty years of age.

Madukwe, *et al.* (2002) affirmed that Agricultural Technology remained a viable tool for improving Agricultural productivity in Nigeria. To this end, step must be taken for the improvement of food production. In addressing increase in this sector, the following research questions are essential: who are the major players? If adult farmers, what roles can they play in productive participation towards food increase? How do extension workers boost the adult farmers to achieve set goals?

Objective of the Study
The major purpose of the study was to assess the participation of adult farmers in Agricultural development in Delta State of Nigeria. Specifically, the objectives of the study were to:

- describe the socio-economic characteristics of the respondents in the study area;
- determine the level of participation in farming activities and
- determine the level of extension contact with Adult farmers and activities and extension contact with farmers.

Hypothesis (Ho): It was assumed that there is no significant association between farmers' socioeconomic and personal characteristics, the level of participation in farming activities and extension contact with farmers.

Methodology
Area of Study: The study covered some areas in Delta State, Nigeria. The State is located between longitude 5°00' and 6'45' East and latitude 5ᶜ00' and 6° 30' North and has a land area of about 17011 square kilometres and shares boundary with Edo, Imo, Anambra and Bayelsa (States). In the south-west and the east with approximately 122 kilometre of Coastline bounded by the Bight of Benin (Federal Republic of Nigeria (2013). Edo, Imo, Anambra and Bayelsa (States). The State has 25 Local Government Areas and these where politically structured into three

(3) senatorial zone namely Delta North, Delta south, and Delta Central (senatorial zones). The state has an estimated population of about 4,098,391 persons with the male recording 2,074,306 representing 50.62 percent while the female recorded 2,024,085 representing 49.38 percent of the population (National Population Commission, 2006).

Sampling Technique and Sample Size
A multistage sampling procedure was used to generate sample size. Stage one involved the three Agricultural zones in the State. Stage two involved using a simple random technique to select 3 Local Government Area (LGAs) (12%) out of the 25 LGAs across the State on zonal basis. Stage three involved a random selection of nine communities from each of the LGAs respectively. This resulted to a sample size of 270 respondents. A structured questionnaire as instrument for data collection was used to elicit information from respondents.

Result and Discussion
Personal characteristics of the respondents (n= 270)
Results in Table 1 indicates that most of the adult farmers in the study area fell within the age range of 45-49 years (65.93%) while those above 49 year were 34 percent. This implies that rubber production in the study area was dominated by middle age farmers who were ir. their active age: acknowledging that farming requires strength, adequate attention and high sense of responsibility. This finding was in consonance with Jibowo (2003 who asserted that most of the rural dwellers (farmers) within the aforementioned age bracket were still vibrant and in their active productive age. Most of the respondents (89.2%) farmers were male and 98.7% were married. This indicates that rubber production was basically a male and married men dominated enterprise. Most (93.0%) of the household-size was low (1-5) while others were between, an indication of low dependability on family labour. 46.00% of the respondents had primary school as the peak of their educational qualification while 27.04 had no formal education.

Table 4.1: Distribution According to the Personal characteristics of the Respondents (n= 270)

Personal Characteristics	Frequency	Percentages
Age		
46-50	178	65.93
41-55	92	34.07
Sex		
Male	241	89.15
Female	29	10.85
Marital Status		
Married	258	95.70
Single		
Widow	7	2.59
Widower	5	1.51
Household Size		
1-5	251	92.96
6-10	2	0.74
11-15	5	1.85
16-20	12	4.44
Educational Qualification		
No formal education	73	27.04
Primary education	124	45.93
Secondary Education	42	15.55
Tertiary	31	11.48

Results in Table 2 indicated that 28.78% of the respondents had farm size 2.00-2.99ha with a mean farm size of 1.9 ha which indicates that a sizable hectare of farmland was cultivated. The table also showed that 22.96% of the respondents had an income range between N151,000 to N200,000 with a mean income of N115, 079. 63; this is in consonance with Madukwe (2000) who asserted that increased agricultural productivity and enhanced farmers income can only be attainable when an effective Agricultural Extension system is put in place. Kehinde,*et al*. (2014) asserted that higher income from produce enables farmers to live a better and a more fulfilled life while lower income limits their living standard.

Table 2: Distribution of respondent according to their Socio-economic Characteristics of the respondents (n= 270)

Variables	Frequency	Percentage	Mean
Farm Size (ha)			
0.0-4.9	19	7.04	
0.5-0.99	47	17.59	
1.0-1.49	51	18.89	1.9 ha
1.5-1.99	75	27.78	
2.00 -2.99	78	28.7	
Annual Income (N)			
0 - 50,000	19	7.04	
50,000-100,000	51	18.89	
101,000-150,000	45	16.67	

151,000-200,000	62	22.96	N115,079.63
201,000-250,000	47	17.40	
251,000-300,000	27	10.00	
301,000-350,000	19	7.04	

Results in Table 3 shows that majority of the respondents (68.29%) cultivated maize and cassava (55.07%) respectively. Other crops grown were; yam (47.03%), plantain (45.92%), Oil palm (33.70%), rice (36.29%) and vegetable (28.15%). The implication of the results is that most of the farmers prefer growing crops that have short gestation period and those that are not capital intensive. This may be as a result of the low resources available to them.

Table 3: Distribution of respondents according to the types of crops grown

Type of Grown	*Frequency	Percentage
Cassava	153	55.07
Yam	127	47.03
Maize	185	68.29
Rice	98	36.29
Vegetable	76	28.15
Plantain	124	45.92
Oil palm	91	33.70

* *Multiple responses,hence the total exceeded the sample size*

Distribution of respondent according to the types of crops grown
Results in Table 4 Indicated that majority (54.81%) of the respondents took only crop production as their favourite enterprise while those that grew crops/livestock and crop/fishery recorded 18.5% and 15.18% respectively. The least enterprise of the respondents was of the combination of Fishery and livestock (2.96%).

Table 4: Percentage distribution according to enterprise Combination of respondents (n=270)

Enterprise combination	Frequency	Percentage
Crop only	148	54.81
Livestock only	13	4.81
Crop/livestock	49	18.15
Crop/ fishery	41	15.18
Crop/Fishery/livestock	8	2.96
Fishery/livestock	11	4.07

Contact with Extension Agents
Results in Table 5 shows the Percentage distribution of respondents according to their Level of contact with Agricultural extension agents; it shows that 30.00% of the adult respondents had frequent contact and 43.70% rarely had contact with the extension agents. Only 26.30% did not have contact with extension agents. This result indicates that significant extension contact were experienced in the study area; this is in agreement with Opia (2000) who reported the presence of theGreen River Project Agricultural Extension agents (An outfit of the Nigeria Agip Oil Company (NAOC) in the study area.

Table 5:   Distribution of Respondents Contact with Extension Agents

Contact	Frequency	Percentage
Not At All	71	26.30
Rarely	118	43.70
Frequently	81	30

Distribution of respondent according to their Production Constraint

Results in Table 6 shows that the respondents experienced serious constraints with a mean score of above 1.50; the important constraints were lack of infrastructural facilities (roads, electricity, water, etc.) (2.47), Lack of market (2.46), lack of storage facilities (2.41) and lack of finance (2.40),

Table 6: Distribution of respondent according to their Production Constraint Distribution of Respondents according to their Production Constraint

Variables	Mean Score
Lack of Infrastructure	2.47*
Lack of Market	2.46*

Serious

Conclusion and Recommendation

The study focused on adult farmersin Delta State of Nigeria and assessed the personal and socio-economic characteristics of the respondents, the results showed the age range, and sex, marital status level of education and household size of the respondents. Crop production was the major farm enterprise of the respondents. Though they also participated in farm enterprise combination. Their mean income was appreciable. Respondents' level of contact with agricultural extensionagents was impressive. However the major constraints experienced by the respondents were lack of infrastructural facilities such as roads, water, storage and processing facilities. Others are Markets and finance. It is therefore recommended that extension services should be improved in order to increase level of awareness. Infrastructural facilities should be made available to ease their operation and marketing links should be provided to increase their level of income thereby improving their living standard.

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