



## Identifying the Influence of Livelihood Indicators on Social Participation among Rural Farmers in Eastern Kogi State, Nigeria

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### Abstract

#### Keywords:

Livelihood, Development, Logit, Participation, Rural

The study identified the influence of livelihood indicators on social participation among rural farmers in Eastern Kogi State, Nigeria. A total of 120 rural farmers were selected using a three-stage random sampling procedure. Questionnaire administration and structured interview schedule were used to collect primary data. Data collected were analyzed using descriptive statistics – percentage and mean and inferential statistics - binary logit regression analysis. The findings from this study revealed that the majority of the rural farmers were males (93.3 %) within middle age (34 years), and possessed formal education (85%). The perceived indicators of rural livelihood were on-farm income (M= 3.7), level of savings (M= 3.4), assets owned (M= 3.3), membership of organizations (M= 3.2), level of education (M= 2.8), and occupational status (M= 2.7). At  $P < 0.05$ , the probability of social participation among rural farmers in the area was positively influenced by education ( $\beta = 2.559$ ), occupational status ( $\beta = 2.894$ ), access to loan ( $\beta = 5.064$ ), assets owned ( $\beta = 2.565$ ), and membership of organization ( $\beta = 5.107$ ). The study recommends the formation of cooperative societies and easy access to loan facilities for economies of scale, own more assets and as well, participate in rural developmental efforts. Also, there should be increased access to education.

### 1. Introduction

Globally, participation as a concept is a concern mainly in social and health studies. In social terms, participation could be used in relation to social inclusion or social integration. This includes social participation as a reflection of positive social behaviors, health and/or well-being. There is an established link between participation, health and well-being of rural farmers (Segal 2002; Jette et al. 2003). Bathgate et al., (2011) pointed out that social participation comprises of the fairness for significant engagement in decisions and planning concerning health and well-being of individuals and community.

Social participation is seen as a synonym for social activity particularly interactions occurring among people (Koster et al., 2009). It is a presence of positive social contact/interaction between a given set of people with common interest. Furthermore, Shattuck et al. (2011) highlighted that social participation can be referred to as the voluntary

engagement in social activities within friends or groups (Shattuck et al. 2011). Ekong (2010) described the term “social group” as aggregates or categories of persons who have a consciousness of belonging or membership and interaction. A social group is formed when a number of people come together to share certain values and interests and thereby identify closely with each other. Group participation on the other hand is the “engagement in activities with others.” According to the author, participation in most formal associations is a function of: holding of membership; regular attendance at meetings; contribution of money/payment of levies; holding formal positions or offices; serving in committees; and going out to work for the associations. Members share ideas/problems and learn through networking and exchange of ideas. There is an established link between participation, health and well-being of rural farmers, (Segal, 2002; Jette et al., 2003; Kelly et al., 2010; Shaibu et al.,

2015). Several scholars consider social participation as an indicator of health, well-being and positive social behaviors. Social participation could be used in relation to social integration, social inclusion or social activity. Social participation involves the right for “meaningful involvement in decision-making about health, policy and planning, and the well-being of self and the community (Bathgate et al., 2011). Three components are central in the description of social participation that enable people to experience self-determined modes (states) of engagement, these are; the references to the concepts of social capital and social inclusion; the individual’s human right to experience self-determined modes (states) of engagement in all aspects of society; and the societal responsibility to provide conditions necessary for the above (Bathgate et al., 2011).

Social participation is seen as a synonym for social activity (Koster et al. 2009). The authors restrict social participation to interactions between people. It is a presence of positive social contact/interaction between a given set of people with common interest. Furthermore, the engagement in social activities that take place within friends, or groups (Shattuck et al. 2011) which is voluntary in nature is referred to as social participation.

Ekong (2010) describes the term “social group” as aggregates or categories of persons who have a consciousness of belonging or membership and interaction. A social group is formed when a number of people come together to share certain values and interests and thereby identify closely with each other. Group participation on the other hand is the “engagement in activities with others.” According to the author, participation in most formal associations is a function of: holding of membership; regular attendance at meetings; contribution of money/payment of levies; holding formal positions or offices; serving in committees; and going out to work for the associations. Members share ideas/problems and learn through networking and exchange of ideas.

Tope (2011) asserts that, participatory learning and action (PLA) is a system of acquiring knowledge and interaction among people involved in developmental activities. It is a process of learning that leads to action by the people who are beneficiaries of developmental programmes. The process facilitates the active involvement of beneficiaries and ensures that their specific needs are addressed. In planning and acting, participation plays a vital role in the improvement, analysis, and sharing of farmers’ knowledge of life and conditions. Tope (2011) further contends that participation as an approach is being promoted for agricultural management in order for the entire segment of the society to have a say in their affairs and encourage

the “bottom-top approach” as against the “top-bottom approach” that has not been effective in addressing farmers’ constraints and interest. Participation promotes innovation, increases technology acceptability or adoption including ownership. Participation enables farmers to share, enhance and analyze their knowledge of life and conditions, to plan and act. Participation promotes innovation and ownership, increase adoption rate and acceptability of new technologies. Tope (2011) further contends that, a participatory approach is being advocated for agricultural management in order for the entire segment of the society to have a say in their affairs and encourage the “bottom-top approach” as against the “top-bottom approach” that has not been effective in addressing farmers’ constraints and interest. Apparently, the contribution of active participation and commitment of people cannot be jettisoned in the enhancement of agricultural and rural development (Akinloye and Banji 2011 and Shaibu et al. 2014). It is in view of the impact of rural farmers’ involvement in the rural development efforts that this paper assessed the correlates for social participation among rural farmers in eastern Kogi State, Nigeria. Specifically, the study described the socio-economic characteristics of farmers; identified farmers various livelihood indicators; and ascertained the influence of selected livelihood indicators on social participation of farmers.

#### Theoretical Framework

This study is hinged on the social interaction theory. The theory points to ‘value consensus’, which is the agreement of community residents about their goals and the appropriate way of achieving those goals (Hess, et al., 2000). It highlights the need for individuals to meet and discuss problems, identify solutions and access mutual support from group members (Forsyth 2006). Social participation indicators can be applied to the various actors engaged in community development activities to boost the process. Where professionals have had an involvement in projects, their attitudes towards, and relationships with members of the community, can demonstrate a radical change: they testify to a deeper understanding of, and greater respect for community perspectives - and a commitment to continue or upscale the process (Daniel et al., 2003).

Critics of this model insist that several factors could affect the information generated during the period and subsequently invalidates dissemination efforts. In addition, the idea that information received by perception through leaders will trickle down to their subordinates hardly happens in reality.

#### 2. Materials and methods

The study was carried out in the Eastern senatorial area of Kogi State. Eastern Kogi State is

made up of two agricultural zones namely; Anyigba and Alloma Agricultural zones. The Anyigba agricultural zone consists of four local government areas/blocks (Dekina, Bassa, Omalla and Ankpa) while Alloma agricultural zone consists of five local government areas/blocks (Idah, Ibaji, Ofu, Igala Mela/Odolu and Olamaboro). From Anyigba agricultural zone, two local government areas/blocks (Dekina and Ankpa) were randomly selected, while three (because of the largeness of the zone) local government areas/blocks (Idah, Ofu and Olamaboro) were randomly selected, hence, making a total of five local government areas or blocks. And from Anyigba Agricultural Zone, 10 farm communities were randomly selected, while 14 farm communities were randomly selected from Alloma Agricultural Zone making a total of 24 farm communities for the study. And from each farm community 5 farmers were randomly selected making a total of 120 respondents for the study. Structured questionnaire was administered to the selected respondents for data collection. A total of 120 administered questionnaires were retrieved from the respondents, giving a response rate of 100%. Data collected were analyzed using descriptive statistics (frequency distribution, percentage and means) and inferential statistics (logit regression model).

The binary logit regression model is specified below;

$$\Pr(y = 1|x) = \Pr(y^* > 0|x) = (X\beta)$$

$$y_i^* = \beta X_i + \varepsilon_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \varepsilon_i$$

$$y = 1 (y^* > 0), i = 1, \dots, N$$

Where:

Y= Criterion (Dependent) variable (Social Participation)

$\beta_0$  = Constant;  $\beta_1, \beta_2, \dots, \beta_n$  are Coefficients, while  $X_1, X_2, \dots, X_n$  are independent variables

$X_1$  = Educational status (educated = 1, otherwise, 0)

$X_2$  = Participation in off farm activities (yes = 1, No = 0)

$X_3$  = Access to loans (Dummy variable; Yes =1, No= 0)

$X_4$  = Savings (Dummy variable; Yes =1, No= 0)

$X_5$  = Occupational status (working; Yes=1, No=0)

$X_6$  = Assets owned (Dummy, Have=1, don't have=0)

$X_7$  = Membership of organization (Dummy, Yes=1, No=0)

e = Error term

### 3. Results and discussion

#### Socioeconomic Characteristics of Farmers

Data presented in Table 1 show the various socioeconomic variables of farmers in the study area. Majority (93.3%) of these farmers were males with a mean age of 34.1 years, and most (41.7%) had

secondary school education, though the findings revealed that 85.0% of the farmers had one form of formal education or the other. The table further shows that, the mean household size of the farmers was seven persons. About 86.0% of the farmers had farm size between 1-5 hectares, while their mean farm size was 3.7 hectares, with a mean farming experience of twenty three years. The table also indicated a mean annual income of ₦12,012.50.

This implies that low income accrue from farmers' operations, despite their long experience in farm business. Ibitoye et al. (2016) and Ekong (2010) asserts that, acquisition of formal education has been found to relate highly to organizational and societal participation. It was also reported that literate ruralites are often given key organizational positions such as the secretary, treasurer and auditor which require literacy. Tologbonse (2004) also reported that, education affects the speed with which new ideas or innovation are being diffused and accepted by farmers. Literate farmers find it easier to interpret extension messages as well as adopt an innovation. Farmers that are literate can easily mix up with like minds to carry out societal programmes that are anchored on societal needs.

#### Perceived Indicators of Rural Livelihoods

Table 2 shows the various correlates of rural livelihoods as perceived by the respondents. It is against these indicators that the researchers based their measurement of social participation by rural farmers in the study area. The major indicators were on-farm income (M= 3.7), level of savings (M= 3.4), assets owned (M= 3.3), membership of organizations (M= 3.2), level of education (M= 2.8), and occupational status (M= 2.7). The principle of decentralization which empowers the community people including farmers to take their destiny in their hands was seriously upheld in Nigeria since 1986 (Akinloye and Banji 2011). The private sector has been called upon to play active role in job creation, provision of social services and welfare packages to people. In Nigeria, communities have been encouraged to partner with Government in identifying, planning, and implementing projects in the community and areas of agriculture and rural development. Income from farm operations is vital to farmer's purchasing power especially during farming seasons: such income is used for acquiring inputs like fertilizers, pesticides, and payment for hired farm labour etc. The extent to which the farmer performs or makes these expenses is dependent upon his savings. Osuntogun (1975) in Ekong (2010) reported that, the level of social participation in rural western Nigeria was related to the amount of deposit members have made as well as the amount of credit they have received. Acquisition of income and level

of savings can also facilitate group formation and participation in community projects/programmes. The uneducated ones may not see the need for social participation as they tend to be conservative and not receptive to innovative ideas.

#### **Influence of Some Selected Livelihood Indicators on Social Participation among Rural Farmers**

The estimate of binary logit regression model on the influence of some selected livelihood indicators on social participation among rural farmers is presented in Table 3. The model's log likelihood ratio and the  $\chi^2$  value indicate that variables included in the model significantly influenced the probability of social participation among farmers at 1%. Significant variables in the model are discussed. All the variables included in the model were significant at 5% level of probability, except for the coefficients of off farm activities and saving. The probability of social participation among the rural farmers increases with the literate farmers. Apparently, the importance

of social participation can be created through education. Access to loan by rural farmers in the study area also increases social participation. This finding is consistent with previous study (Etwire et al., 2013) in Ghana that purported a positive association between participation and access to credit among farmers. Access to loan can influence farmers' willingness to take advantage of the new funds for expansion and its multiplier effect on farm income.

Furthermore, the probability of social participation among rural farmers increases with farmers who are members of association; owners of assets, and those who are working. The findings of this result is not surprising as previous studies established that, social participation creates easy access to improved agricultural technologies, better earning markets for produce and improved produce transport to markets (Aliguma et al. 2007; Gibson et al. 2008 and Mwaura et al., 2012).

Table 1. Distribution of Respondents by Socioeconomics Characteristics

Socioeconomic Characteristics	Frequency	Percentage	Mean
Gender			
Male	112	93.3	
Female	8	6.7	
Age			
< 20	6	5.0	
21 – 30	21	17.5	
31 – 40	63	52.5	34.1
> 40	30	25.0	
Educational Level			
No formal education	18	15.0	
Primary education	46	38.3	
Secondary education	50	41.7	
Tertiary education	6	5.0	
Household size			
1 – 5	31	25.8	
6 – 10	72	60.0	7
> 10	17	14.2	
Farm Size (Ha)			
1 – 5	103	85.8	3.7
6 – 10	14	11.7	
>10	3	2.5	
Farming Experience (years)			
< 10	12	10.0	23.0
11 – 20	28	23.3	
21 – 30	42	35.0	
>30	38	31.7	
Estimated annual income (₦)			
₦50,000- ₦100,000	93	77.5	₦112,012.5
₦101,000- ₦150,000	21	17.5	
₦151,000- ₦200,000	6	5.0	
>₦200,000	0	0.0	

Source: Field Survey, 2017

Table 2. Mean Distribution of Respondents by Perceived Indicators of Rural Livelihood

Indicators	Mean (X)
Educational level	2.8*
On-farm income	3.7*
Off-farm income	1.6
Level of savings	3.4*
Assets owned	3.3*
Membership of organizations	3.2*
External contact/peer influence	2.2
Occupational status	2.7*
Gender/sex	1.6
Access to credits (loans)	1.5

Source: Field Survey, 2017

Table 3. Estimate of Binary Regression

Variables	Coefficient	Std. Error	z	p> z
Education status	2.559	0.940	2.72	0.007***
Off farm activities	3.343	2.362	0.99	0.321
Loan	5.064	2.018	2.51	0.012**
Saving	1.461	1.095	1.34	0.182
Occupational status	2.894	1.056	2.74	0.006***
Assets	2.565	1.336	1.92	0.054**
Membership of organization	5.107	1.230	4.15	0.000***
_Constant	-7.240	2.024	-3.58	0.000***
Log likelihood	-21.423			
LR chi <sup>2</sup>	93.06***			
Pseudo R <sup>2</sup>	0.685			

Source: Field Survey, 2017 \*\*\* and \*\* = coef. Sig. 1% and 5% respectively

#### 4. Conclusion and recommendations

The study analyzed the correlates of social participation among rural farmers in the Eastern part of Kogi State, Nigeria. It specifically ascertained the indicators of rural livelihood and the influence of selected variables on social participation among the rural farmers. The study concluded that the perceived indicators of rural livelihood majorly include on-farm income (M= 3.7), level of savings (M= 3.4), assets owned (M= 3.3), membership of organizations (M= 3.2), level of education (M= 2.8), and occupational status (M= 2.7). Furthermore, education, access to loan, occupational status, assets and member of organization positively influenced participation of rural farmers in social activities at 0.05.

In view of the findings, the study recommends that farmers should be encouraged to join comparatives. There should also be adequate access to loan facilities. In addition, their access to education should be increased. The private sector is also called upon to play active role in job creation, provision of social services and welfare packages to the rural farmers. Communities should be encouraged to participate in agricultural and rural project identification, planning and implementation.

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