Determinants of Rural Women Attitude towards Participating in Farmers Local Organizations: Challenges and Prospects in South-South, Nigeria.<br>${ }^{1}$ Okwuokenye, G. F. and ${ }^{2}$ Onyemekihian, F.<br>${ }^{1}$ Department of Agricultural Economics and Extension, Faculty of Agricultural Sciences, National Open University of Nigeria, Km 4, Kaduna Zaria Express Way, Kaduna State<br>${ }^{2}$ Department of Vocational and Technical Education (Agric Education), Faculty of Education, University of Delta, Agbor<br>Corresponding author's email: ofolunsho@noun.edu.ng<br>Orcid: https://orcid.org./0000-0002-3866-0317


#### Abstract

The study examined rural women's attitude towards participating in farmers' local organizations along with its challenges and prospects in South-South States, Nigeria. The sample size of 295 respondents was drawn using the multi-stage sampling technique. Descriptive statistics was used to analyze the objectives of the study while inferential statistics (Spearman's Rank Correlation Coefficient and Binomial test statistics). Results showed that the average age, household size, farm experience, farm size and years of membership in the social group were 39.76 years, about 6 persons, 6.71 years, 2.48 ha and 6.07 years. Statements like participation in the group have enhanced my farm output ( $56.61 \%$ ) and participation in the group has improved my income ( $56.61 \%$ ) were statements that showed favourable attitudes of the farmers which have improved the livelihood status of the respondents. Prevalence of corruption and dishonesty of leaders (mean $=4.13$ ), membership poor response to loan repayment $($ mean $=4.08)$ and lack of government assistance $($ mean $=4.08)$ were some of the challenges limiting the farmers from participating in FLOs. Factors such as respondents age ( $r=0.398 ; p=0.000$ ), level of formal education ( $\mathrm{r}=-0.217 ; \mathrm{p}=-0.002$ ), household size $(\mathrm{r}=0.443 ; \mathrm{p}=0.001)$ and membership of FLOs $(\mathrm{r}=$ $0.362 ; p=0.000$ ) were significant to rural women farmers attitude on participating in farmers local organizations. Based on the results, the study recommended that there is a need for the leaders of the FLOs to be up and doing and try to keep clean and transparent practices that can help to instil confidence amongst the people so that they can be encouraged to improve in their level of participation.


Keywords: Rural women attitude, participation, farmers' local organizations, livelihood status, farmers' income, production level

## Introduction

Nigerian women have played a significant role in the practice and development of agriculture. They constitute a large group with diversity in culture and class and are also bound by common issues and experiences which they encounter in different stages of their lives (Izekor and Ilavbarhe, 2021). It was recently revealed by a report of the Consortium of International Research Centres (CGIAR) (2021) that a fraction as large as $43 \%$ of the populace that is involved in the agricultural sector is made up of women. The report of CGIAR (2021) also stated that this fraction increases with the least developed countries. The report precisely stated that two out of every three women are employed in one farming business or the other. Izekor and Ilavbarhe (2021) stated that $60-80 \%$ of the food produced and marketed is carried out by women. This assertion underscores women's essential contributions
to the agricultural and rural economies both to the developing nations in particular and the rural economies in general. It has been stated by Nnadi et al. (2021) that women, within their abode work round the clock, from dawn to dusk and that they do well in getting themselves involved in different tasks within the farm environment with a particular purpose of ensuring that they meet up with their family needs.

To a large extent, the role of women in this regard (meeting family needs) is achieved through their participation in different organizations whose activities are majorly farm-related. Okwuokenye et al. (2023) indicated that such organizations may include Community Agricultural Workers, Model Farmers, Lead Farmers, Extension Workers, Extension agents, community-based Extension Organizations, Farmers Local Organizations etc. It is through the women's
participation in similar or related organizations that they have in recent times strategically made their voices heard. Ellis (2023) was of the view that women's participation in social groups within their social settings or environment has created an important space for them to exercise their voice in the quest for access to credit and control of community resources along line with enhanced decision-making power in the household and community where they live.

Okwuokenye et al. (2023) asserted that the more farmers participate in such groups, the greater the cohesion amongst them and they are provided with the opportunity to improve their outputs and income which consequently helps them to improve their livelihood. This accounts for why Izekor and Ilavgbarhe (2021) stated that women's contributions to economic development have increased despite the several barriers faced by them. This increase has been adduced to their participation in groups like micro, small and medium enterprises which are synonymous with other farm or social groups. The women's level of participation is however influenced or guided most importantly by their attitude and some other factors. It is against this background that this study sought to know the extent and the direction to which these factors influence rural women's attitudes to participation in farm organizations. In achieving the overall objective, the specific objectives focus on to; describe the socio-economic characteristics of the rural women farmers participating in farm local organizations (FLOs) in the area of study, determining the attitude of the rural women farmers towards participating in farm local organizations, determine the livelihood status of rural women farmers before and during participation in farmers local organization and identify the challenges limiting the rural women from effectively participating in farmers organizations.

## Hypotheses of the study

Hoi: Socio-economic characteristics of rural women farmers have no significant relationship with their attitude toward participating in farmers' local organizations.
Hoii: There is no significant difference between rural women farmers' livelihood status before and during membership of farmers' local organization

## Methodology

## Area of Study

The study was carried out in two South-South States out of the six States, namely: Edo, Delta, Bayelsa, Cross River, Delta, Edo and Rivers States. The States are Edo and Delta.

## Edo State

Edo State is one of the South-South States of Nigeria. It was carved out of the defunct Bendel State in August 1991. The state presently has 18 local government areas (LGAs) and the capital seat is Benin City. Its estimated population size as of 2022 according to NPC (2022) was $4,777,000$ people spread over about $19,639.7$ square
kilometres (Edo State, Nigeria - Population). The State has major towns like Benin, Auchi, Ekpoma, Uromi, Irrua, Okpella, Agenegbode, etc. The official language is English, with Edo as their main spoken language. The people of Edo State are popular in Arts and crafts and also rich in culture. The State has major industries at NIFOR, Ewu, Okomu, etc. and it is also rich in agricultural production several minerals endowed in the State are quartzite, marble, limestone, lignite, and gold. Petroleum is found in Ovia and Orhionmwon areas of the State (Okwuokenye and Akintoye, 2015).

## Delta State

Delta State is another among the six States in the South-South geopolitical zone of Nigeria and was created from the defunct Bendel State on $27^{\text {th }}$ August 1991. It has 25 Local Government Areas with the capital seat at Asaba. The state has a total land area of 17,698 $\mathrm{Km}^{2}$ and an estimated population of 5,636,100 people as of 2022 (Delta State, Nigeria - Population). Most of the land is suitable for agricultural production activities like production of crops, fish and livestock for food and industry and this stands as the predominant occupation of the people (Okwuokenye and Akintoye, 2015). Ethnic and tribal groups of the State are mostly the: Isoko, Ika, Urhobo, Itshekiri, Izon, Ukwuani and Aniocha-speaking people. Other occupations of the people include oil prospecting, civil service, trading and commerce (Okwuokenye and Akintoye, 2015). The area is known to have two distinct seasons which are the dry and the rainy seasons. The state is described as having a monsoon climate with a yearly temperature of $28.64^{\circ} \mathrm{C}$ $\left(83.55^{\circ} \mathrm{F}\right)$, and its average rainfall is 241.52 mm (Delta Climate Summary, 2022).

## Validation of Research Instrument

The validity approach used was the jury method and it involves the presentation of the research instrument to experts for corrections and criticisms to suit the purpose vis-à-vis the stated objectives of the study.

## Sampling Techniques

A multi-stage random sampling technique was adopted in selecting the sample of the study. It started with the purposeful selection of Edo and Delta States, leaving out the other four (Rivers, Akwa-Ibom, Bayelsa, Cross River) of the South-South States of Nigeria (stage 1). From each of the States, two (2) agricultural zones were randomly selected, thus making it four zones that were used for the study (stage 2). Stage 3 involved the random selection of two (2) Local Government Areas (LGAs) from each agricultural zone, making a total of eight (8) LGAs selected for the study. Stage 4 involved the random selection of three (3) communities/villages from each of the LGAs and this made the communities used to be twenty-four (24). It was from each of these villages that thirteen (13) farmers were randomly selected (stage 5). Efforts were made by the researcher to ensure that the guiding criteria adopted in the selection of farmers include the fact that they are farmers and membership of any farmer's organization that is still in existence or functional in their community of abode. The total number of farmers then became three hundred and twelve (312) and they were the ones administered with the question instrument
(questionnaire and interview schedule administered to literates and illiterates respectively). Out of the returned instruments, two-hundred and ninety-five (295) of them suitable for analysis provided the primary data of the study.

## Data analytical techniques

Data collected were analyzed using descriptive and inferential statistics. The descriptive statistics involved the use of frequency, percentage and mean. They were used to analyze respondents' socio-economic characteristics and rural women's attitudes towards participating in farmers' local organizations (FLOs). The rural women farmers' livelihood status before and during their participation in FLOs was achieved using the livelihood status index (Mohammed et al., 2019). The index involved presenting the list of 38 likely accrued benefits acquired from the extra or difference in production and income since they became members of FLOs. The assets include tables, chairs, televisions, decoders, radios, and water pumps, purchases of land, block-made houses, mattresses, sewing machines, cattle, sheep, plough, ox-plough, and fine clothing. It is believed that social benefits such as above mentioned, derived from participation in FLOs can improve productivity, encourage knowledge sharing, promote more rural women farmers participation, improve the people's well-being, develop and strengthen relationships among the participants, increase income generation activities and promote diversification and can even give room for off-farm business activities. In financial consideration, the benefits that can be accrued include inflow of money, cash availability, more deposits made in the bank, human capital development, and improvement of skill, health, labour and knowledge.
The livelihood index was obtained using the model:
LSI $=\frac{\text { Number of livelihood factors benefited by the respondent }}{\text { Total number of livelihood benefits }} . . .$. . (1)
Where: LSI = Livelihood status index.
The categorization is stated as: $\leq 0.25=$ Very low livelihood; $0.26-0.49=$ Low livelihood; $0.50-0.75=$ Moderate livelihood and $>0.75=$ High livelihood.
Challenges limiting rural women from active participation in farmers' local organizations were analyzed using a five-point Likert type scale, coded 5, 4, 3, 2 and 1 for Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree respectively. The weighted mean score of 3.0 (which was obtained as follows: $[5+4+3+2+1] / 5$ ) was used to determine if the farmers agreed to the factor under consideration as a challenge or not. Factors whose values are equal to 3.0 and above were considered as challenging factors to women's participation in FLOs. Contrarily, the factors with values less than 3.0 were regarded as nonchallenging factors.
Inferential statistics involved the use of Spearman's Rank Correlation Coefficient (r) and Binomial test statistics. Spearman's Rank Correlation Coefficient was used to analyze hypothesis one (socio-economic characteristics of rural women have no significant
relationship with their attitude toward participating in farmers' local organizations). It measures the association between the dependent $(\mathrm{Y})$ and independent variables ( X ). The formula is stated thus;
$\mathrm{r}=1-\frac{6 \Sigma^{2}}{\mathrm{~N}\left(\mathrm{~N}^{2}-1\right)} \ldots \ldots$ (2) (Okwuokenye, 2020)
Where; $\mathrm{D}=$ the difference between two ranks of each observation of two independent variables
$\mathrm{N}=$ total number of cases or sample size
Decision: The value of Spearman's Rank Correlation Coefficient ranges between -1 to +1 . When $\mathrm{r}=+1$, it implies that there is a perfect (linear) relationship between X and Y , where a unit increase in X always leads to a constant increase in Y. On the other hand, when $r=-1$, it implies a perfect functional relationship, but in this case, a unit increase in X leads to a constant decrease in Y. The variables are determined thus:
$Y=$ Farmers attitude (favourable attitude $=1$;
unfavourable attitude $=0$ )
$\mathrm{X}_{1}=$ Marital status (single $=1$; married $=2$; divorced
$=3$; widow $(e r)=4$ ),
$\mathrm{X}_{2}=$ Age of farmers (years)
$\mathrm{X}_{3}=$ Level of formal education of farmers (no formal educ. $=1$; primary. educ. $=2$; secondary educ. $=$ 3 and post-secondary educ. $=4$ )
$\mathrm{X}_{4}=$ Household size (number of people living and feeding together)
$\mathrm{X}_{5}=$ Farm size (measured in hectares)
$\mathrm{X}_{6}=$ Years of membership of FLOs (dummy: membership $=1$; non-membership $=0$ )
$\mathrm{X}_{7}=$ Farm income (measured in naira, N$)($ high $=1$; low $=0$ )

Binomial test statistics were used to analyze hypothesis two (there is no significant difference between rural women farmers' livelihood status before and during membership of farmers' local organizations). The Binomial test statistics were used to determine the significant difference in the proportion of respondents' livelihood status before and during their membership in farmers' local organizations (FLOs). The formula for binomial distribution is given as follows:
$\mathrm{b}(\mathrm{x} ; \mathrm{n}, \mathrm{p})=\mathrm{nCx} * \mathrm{px} *(1-\mathrm{p}) \mathrm{n}-\mathrm{x} \ldots$.
Where:
$\mathrm{b}=$ binomial probability; $\mathrm{x}=$ total number of successes (livelihood status before and during their membership); $\mathrm{p}=$ probability of success on an individual trial; $\mathrm{n}=$ number of trials

## Results and Discussion

## Socio-economic characteristics of the respondents

The socio-economic characteristics of the respondents are shown in Table 1. The results revealed that most ( $64.75 \%$ ) of the respondents are married. Being married is an indication that they are responsible, have people to cater for and are qualified to belong to social groups in their community. In addition, most ( $77.29 \%$ ) of them have husbands as heads of their households and from whom they take instructions. This result further justifies
their high level of responsibility. It is expected that their husbands would be rendering farm assistance that perhaps will be helping to boost the performance of the farm. The report of Adamu (2018) supported this result for the fact that he found the dominance of married women who also have husbands as heads of their households. The age of the respondents revealed that most ( $40.34 \%$ ) of the respondents were between the age bracket of $30-39$ years and their average age was 39.76 years. About $38-99 \%$ and $20.68 \%$ were above 39 and less than 30 years respectively. The result implies that the rural women farmers are young and in their economically active age group capable of taking farm risks for their personal development and also qualified to participate in farmers' organizations. This result is justified by that of Adamu (2018) who found a similar mean age ( 38.5 years) of rural women farmers in their study.
Almost (93.56\%) of all the rural women had formal education, with the majority ( $50.85 \%$ ) having secondary school qualifications. Only a few (6.44\%) had no formal education. The result implies that the rural women farmers are literate and so can participate profitably in community local organizations. The result is in line with the findings of Aliyu et al. (2022) which revealed that most of the farmers participating in groundnut production were literate.

The average farm experience of the rural women farmers was 6.71 years with the modal ( $36.27 \%$ ) having between $7-9$ years of experience. About $16.95 \%$ and $46.78 \%$ respectively had more than 9 years and less than 7 years of farming experience. The result out rightly implies that rural women are experienced in their farming activities. The experience affords them the knowledge to know the intricacies of their farming and how to manage and reduce challenges for better output and income. The result aligns with that of Aliyu et al. (2022) who reported similar farming experience and that the experience they had was sufficient to help them determine soil fertility, onset and offset of rainfall. The average farm size of the respondents was 2.48 ha with most ( $53.22 \%$ ) of them having farms that range in size that is between $1-3 \mathrm{ha}$. About $20 \%$ of the rural women had farmers that were larger than 3ha while $26.78 \%$ had farmers that were less than 1 ha. The result by implication reveals that rural women farmers are smallscale farmers and produce at the subsistence level. Declaring the farmers as small-scale farmers is consistent with the findings of Zakari, et al. (2021).

Respondents' years of membership in social society or social club revealed that the average period they had spent as members was 6.07 years and most ( $41.02 \%$ ) of them were seen as farmers who had spent between 7-9 years in their social society of clubs. The result indicates that the respondents are not new but have experience as members of the social group they belong. Respondents also participate in these social groups because as claimed by most $(85.76 \%)$ of them, it is one major outlet where they easily source credit from. Having most of the farmers belonging to social groups is an indication that
they have been benefiting from being members of the groups, thus confirming the assertion that it perhaps has been a source of access to capital for them. This study is on the findings of Akpomedaye (2023) who agreed to the fact that membership of cooperative societies earns them some benefits which enhance their farming activities. A larger fraction ( $82.71 \%$ ) agreed to have had access to extension services at one time or the other. This is not unconnected to some of the benefits offered by belonging to social groups to which most of them are members. This result resembles the findings of Akpomedaye (2023) who claimed that farmers' participation in social groups exposes them to some benefits which enhance their farming activities and more access to extension services.

## The attitude of rural women farmers towards participating in farm local organizations

The attitudes of the rural women farmers in the different groups (FLOs) they belong to vary among themselves and among different statements that assume attitude levels among the farmers. These attitudes were rated on a four-point scale level which include: insignificant, minor, moderate and major. Statement of attitudes that were rated at $50 \%$ and above were considered favourable to the participation in the group they belong to, while less than $50 \%$ were rated otherwise. Table 2 shows the attitudes of the participants to the different statements. First, the statement is: participation in the group has enhanced my farm output (56.61\%) the second: participation in the group has improved my income (56.61\%) and the third statement is that participation in the group has improved my knowledge of farming practices ( $50.51 \%$ ). The Farmers strongly agreed to the above statements and therefore showcased a favourable attitude to the statements. Rural women farmers who are participants are likely to learn new skills and farming practices from the group they belong. This finding is supported by the studies of Madukwe (2005) which revealed that participants of farmers' organizations help to get across to the farmers and train them on the latest agricultural information that helps improve their farm output and farm income.

Other statements that give rise to farmers' favourable attitude are: participation in the group has improved my living standard ( $50.51 \%$ ) and participation in the group has helped in improving my farming skills (50.17\%). The farmers showed favourable attitudes to the above statements and that implies participation in farmers' local organizations has a real impact on the lives of the rural women in different ways and in general improved their farm output and income. This result aligns with the assertions of Okwuokenye, et al. (2023) who pointed out that rural farmers need to come together and participate in social or community groups where policy programmes and investments of the government can reach and impact them through extension packages like inputs, cash, agricultural advice provision as well as training from the extension arm of agriculture Ministry and other agricultural service providers.

Results on further analysis of the attitude of the rural women towards participating in farmers' local organizations, Table 3 revealed that a larger fraction ( $87.46 \%$ ) of the respondents indicated that the farmer's attitudes towards participation were favourable, while few ( $12.54 \%$ ) of them indicated unfavourably attitude towards participation in FLOs activities. Drawing inference, it could be deduced that a good proportion of the farmers developed a positive attitude toward themselves and practices in the groups they belong. The favourable attitude exhibited by most of the farmers is an indication that the groups they belong to are meeting their needs or purpose of registering.
Rural women farmers' livelihood status before and during membership of farmers' local organizations
The livelihood status of the rural women farmers is examined and this was ascertained before and during their membership in farmers local organizations. Results in Table 4 revealed that most (50.51\%) of the rural women farmers had low livelihood. On the other hand, during the period of their membership with FLOs, most ( $56.95 \%$ ) of the rural women farmers' livelihood status changed or improved to a high livelihood status level. The result implies that as members of FLOs, they have access to extension agents who make improved agricultural information and technology available to the farmers and this helps to improve the farm output of the farmers which consequently translates into increased income. In addition, in most of the FLOs, the rural women are members to have outlets for the conduction of thrift activities or "osusu" frIsuzuere the farmers can obtain finance to improve their farming activities. Soon they begin to build on their capital base which goes a long way in enhancing their household welfare and livelihood. This result was supported by that of Mohammed, et al. (2019) who reported that farmers' livelihood status gets improved when they participate well in community organizations.

## Challenges limiting respondents from participating effectively in farmers' local organizations

The challenges limiting the rural women farmers' participation in farmers' local organizations (FLOs) are shown in Table 5. The result shows that several factors limit the effective participation of the respondents in FLOs. The factors were analyzed on a five-point Likert scale and those factors with a mean of 3.0 and above are considered as limiting factors. The factors are the prevalence e of corruption and dishonesty of leaders (mean $=4.13$ ), membership poor response to loan repayment ( mean $=4.08$ ), lack of government assistance (mean $=4.08$ ) and presence of political influence (mean $=4.01)$. They respectively ranked the $1^{\text {st }}, 2^{\text {nd }}, 2^{\text {nd }}$, and $4^{\text {th }}$ most serious challenge limiting rural women farmers from effectively participating in FLOs. This result is consistent with the findings of Okwuokenye et al. (2023) who identified similar factors constraining farmers' participation in community-based extension organizations (CBEOs). The $5^{\text {th }}, 6^{\text {th }}, 6^{\text {th }}$ and $8^{\text {th }}$ most serious constraints to rural women farmers' participation in FLOs are financial challenges (mean $=$ 3.89), poor access to credit and other agricultural inputs
(mean $=3.81$ ), poor leadership style of the executives (mean $=3.81$ ) and lack of awareness (mean $=3.76$ ). This result supports the findings of Abdullahi et al. (2015) that the later-mentioned factors constrained the effective beneficiaries' participation in women's nongovernmental organizations. Other constraining factors to rural women's participation in local organizations include socio-economic barriers like age, marital status and educational level (mean $=3.73$ ), time and duration of organization's activities $($ mean $=3.66)$, cultural and traditional norms and values (mean $=3.60$ ), poor dissemination of meeting days (mean $=3.41$ ) and clashing of organization's meeting days and communal market days (mean $=3.24$ ). The findings of Deekor (2019) confirmed this result as an important factors that affect rural farmers' participation in community development projects.

## Relationship between respondents' socio-economic characteristics and their attitude on participating in farmers' local organizations

Spearman Rank's Correlation was computed to assess the relationship between the rural women farmers' socio-economic characteristics and their attitude toward participating in farmers' local organizations (FLOs) and this was carried out to find a solution to hypothesis one which states that: socio-economic characteristics of rural women have no significant relationship with their attitude on participating in farmers local organizations. Table 6 shows Spearman's Rank Correlation Coefficient (r) revealing relationship between socio-economic variables and rural women farmers' attitude on participating in farmers local organizations. The factors under consideration amongst the socio-economic variables are marital status, age, level of education, household size, farm size, years of membership of FLOs and farm income. The significant variables among them all include respondents' age, level of education, household size and years of membership in FLOs. The age of the respondents ( $\mathrm{r}=0.398, \mathrm{p}=0.000$ ) was positively signed and significant at the $1 \%$ level to rural women farmers' attitudes toward participating in FLOs. The result implies that as the farmers advance in age, so would they perhaps continue to display a positive attitude to participating in FLOs. For the responsible in the African context, the increase in age is accompanied by responsibility which may be better met or resolved by social groups to which they belong. This result is in agreement with that of Ilori et al. (2022) who found age of women positively relates to women's participation in self-help development projects. The level of education of the rural women farmers was negatively signed and significant at the $5 \%$ level. The correlation coefficient was -0.217 while its probability value was -0.002 . The result implies that as rural women improve their level of formal education, so probably do they develop unfavourable attitudes toward participating in FLOs. An increase in the level of formal education enlightens them on other avenues where information could be more profitably sourced rather than sourced through participation in social groups. On the other hand, the inverse relationship could be to discriminate other
illiterate rural women from associating with them in such groups. This result was confirmed by Lawal et al. (2021) who stated that women empowered with a high level of formal education would like to re-invest their money rather than participate in saving mobilization schemes.

Household size of the rural women farmers had a correlation coefficient and probability value of 0.443 and 0.001 respectively. The relationship was positively signed and significant at the $1 \%$ level. The result by implication, means that rural women with large household sizes are most probably bound to have a more favourable attitude to participating in FLOs. Having a large household size will call for more household expenses and that may result in why the women may want to participate in FLOs where quality agricultural information and innovations could be sourced to better their farm production and income and meet up with the economic needs of the households. This result was confirmed by the findings of Lawal et al. (2021) which established a positive relationship between household size and women farmers' participation in a similar group. The study established a positive correlation coefficient ( $\mathrm{r}=0.362 ; \mathrm{p}=0.000$ ) between rural women farmers' attitudes on participation and years of membership of FLOs. Impliedly, an increase in the number of years rural farmers have spent in FLOs may result in the farmers developing more positive attitudes to participating in FLOs. Several benefits such as exposure to improved farm technology and innovations as well as access to extension services are likely to be derived from the group and that can enable them to take care of the economic needs of their households. Ngango and Hong (2021) findings were in line with this result that shows a positive influence of membership in farm organizations and the rate of access to farm innovations and adoption which indicates a favourable attitude.

## Difference between rural women farmers' livelihood status before and during membership of farmers' local organization

Hypothesis two which stated that there is no significant difference between rural women farmers' livelihood status before and during membership of farmers' local organisations analysed with a Binomial test and the result is presented in Table 7. It revealed that a larger fraction (50.51\%) of the rural women farmers indicated that their livelihood status was low before becoming members of farmers' local organizations. The livelihood status became high after becoming members of farmers' local organizations as indicated by the majority ( $56.95 \%$ ). In a dichotomy consideration, the majority ( $56.95 \%$ ) indicated a high livelihood status level, while the other fraction (43.05\%) indicated a low livelihood status. Statistically, the result was significant at the $1 \%$ level of probability. For this reason, the alternative hypothesis which showed that (there is a significant difference between rural women farmers' livelihood status before and during membership of farmers' local organization) was accepted against the null. The result thus suggests that being members of farmers' local
organizations perhaps provides them the opportunity to have access to extension services that link them to improved farm technology and innovations that are sufficient to improve their farm output and income. Membership of FLOs also provides rural women farmers access to credit through thrift contributions which they can also use to enhance their agricultural activities and farm income which would in the long run improve their livelihood status. This assertion was supported by Mohammed, et al. (2019) who stated that participating in community organizations helps to improve farmers' productivity, income and standard of living.

## Conclusion

The rural women farmers showed their attitude to participation in farmers' local organizations in several ways and these attitudes of theirs were more favourable or in the positive direction likely to influence their participation in FLOs. This participation in FLOs helped to alleviate the livelihood status of many of the rural women. Several factors like respondents' age, level of formal education, household size and membership of FLOs were significant factors in the rural women farmers' attitude toward participation in FLOs. The participation would have been higher than what it was and possibly improved more on their livelihood status if not for the several limiting factors that constrained their participation level. Based on the results, the following were recommended:
There is a need for the leaders of the FLOs to be up and doing and try to keep clean and transparent practices that can help to instil confidence amongst the people so that they can be encouraged to improve their level of participation and thereby reap more benefits. The executives need to put in place strong strategies and modalities through which loans given out could be paid back by beneficiaries. This is necessary so that more money can be made available to give to others in need and have them encouraged to participate more.
The groups also need to be assisted by the government through access to capital (via loans) and farm inputs that may need to be subsidized; and the FLOs need to be free from all political affiliations so that they will not suffer government neglect, should in case the group appear to be on the other side of the government in power.

## References

Abdullahi, A.J., Atala, T.K., Akpoko, J.G. and Sanni, S.A. (2015). Factors influencing smallholder farmers' participation in IFAD-community-based agricultural and rural development projects in Katsina State. Journal of Agricultural Extension, 19(2): 93-105
Adamu, C.O. (2018). Analysis of access to formal credit facilities among rural women farmers in Ogun State, Nigeria. Nigeria Agricultural Journal, 49(1): 109-116
Akpomedaye, J.F. (2023). Impact of cooperative societies on agricultural development in Ughelli North and Ughelli South Local Government Areas of Delta State. Retrieved at:
https://researchgate.net>3688 --- On 6th May, 2023
Aliyu, Y.M., Mamza, N.J. and Shehu, H. (2022). Assessment of women participation in groundnut production in Hawul Local government area of Borno State, Nigeria. Nigeria Journal of Agriculture and Agricultural Technology, 2(2): 122 - 132

Consortium of International Research Centres (CGIAR) (2021). Recognizing the agricultural efforts of women. Retrieved at: https://www.cgiar.org/news-events/news/cgiar-celebrates-international-womens-day-2021/. On 23rd February, 2023
Deekor, H.L. (2019). Challenges of participation of rural farmers in community development in Rivers State. International Journal of Initiative Psychology and Social Development,7(1):75-81
Delta (State, Nigeria) - Population Statistics, Charts, Maps and Location. Retrieved at https://citypopulation.de>admin On 28th June, 2023
Delta, Nigeria Climate Summary. Retrieved at: http://tcktck.org>nigeria>delta On 23rd March, 2023
Edo (State, Nigeria) - Population Statistics, Charts, Maps and Location. Retrieved at https://citypopulation.de>admin On 28th June, 2023
Ellis, J. (2023). What is the role of women in community development? Smart Capital Mind. Retrieved at: https://smartcapitalmind.com>what-is-the-role-of-women-in-community-development? On 23rd February, 2023
Ilori, A, R., Fadipe, M.O. Oladoja, M.A. and Mufutau, R.A. (2022). Assessment of women's participation in self-help community development projects in Remo Division of Ogun State, Nigeria. Journal of Agripreneurship and Sustainable Development, 5(1): 270-279
Izekor, O.B. and Ilavbarhe, K.O. (2021). Administration of credit to women food crop marketers by Microfinance Banks in Benin Metropolis, Edo State, Nigeria. Journal of Agriculture and Life Sciences. 4(1):314-322
Lawal, M., Salihu, I.T., Tsado, J.H. Umar, S.I. and Abdullahi, A. (2021). Factors influencing women participation in saving mobilization scheme in Benue State, Nigeria. Journal of Agripreneurship and Sustainable Development, 5(1): 216-222
Madukwe, M.C. (2005). Agricultural extension administration. In: Adedoyin, S.F. (ed).
Agricultural extension in Nigeria, Agricultural Extension Society of Nigeria, Ilorin. PP. 182-185.

Mohammed, U., Umar, I.S., Olaleye, R.S., Salihu, I.T., Tsado, J.H. and Pelemo, J.J. (2019). Effects of forest resources utilisation on the livelihood of the rural farming populace in Kogi and Niger States, Nigeria. Journal of Agriculture and Environment, 15(1): 77-86
National Population Commission of Nigeria (web) National Bureau of Statistics, 2022. Retrieved at: http://www.citypopulation.de>php. ni..... On $25^{\text {th }}$ April, 2022
Ngango, J., and Hong, S. (2021). Speed of adoption of intensive agricultural practices in Rwanda: A duration analysis. Agrekon. 60(1): 43-56.
Nnadi, O.I., Ogbodo, F.N., Ohagwu, A.V., Onyia, C.C., Nnadi, U.V. and Ozioko, R.I. (2021). Effectiveness of climate change adaptation measures used by women garden egg farmers in Enugu State, Nigeria. Journal of Agricultural Extension 25(4): 50-61
Ogbonna, S.I. (2022). Role of women in palm fruit processing in Imo State, Nigeria. Nigeria Agricultural Journal, 2(2): 33-44
Okwuokenye, G.F (2020). Analysis of adoption level of fish farmers on spawning technologies and Usage in Delta State, Nigeria. African Scholar Publications \& Research International, 19(1): 15 30
Okwuokenye, G.F. and Akintoye, E.O. (2015). Economic implications of farmers level of participation in local organizations on farm productivity in Niger Delta Area, Nigeria. The International Journal of Science and Technology, 3(6): 207-217
Okwuokenye, G.F., Nwandu, I.P. and Ogbonna, S.I. (2023). "Small-Scale Farmers Participation in Community-Based Extension Organizations: Implications for Increased Productivity, Income and Food Security in Kaduna State, Nigeria." IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS), 16(4): 38-49.
Zakari, S., Moussa, B., Ibro, G. and Abdoulaye, T. (2021). Factors influencing farmers' participation in groups and the impact of collective marketing on household food security and income in Sahel, Niger. The World's Largest Open Access Agricultural and Applied Economics Digital Library. Retrieved at: https//ageconsearch.umn.edu. On 23rd August, 2022.

Table 1: Socio-economic characteristics of respondents. $\mathbf{N}=\mathbf{2 9 5}$

| Characteristics | Category | Freq. | Percentage | Mode / Mean |
| :---: | :---: | :---: | :---: | :---: |
| Marital Status | Single | 61 | 20.68 |  |
|  | Married | 191 | 64.75 |  |
|  | Divorced | 27 | 9.15 |  |
|  | Widowed | 16 | 5.42 | Married |
| Age (years) | $<30$ | 61 | 20.68 |  |
|  | 30-39 | 119 | 40.34 |  |
|  | 40-49 | 53 | 17.97 |  |
|  | 50-59 | 44 | 14.92 |  |
|  | 60 \& above | 18 | 6.10 | 39.76 years |
| Educ. Status | No formal educ. | 19 | 6.44 |  |
|  | Primary educ. | 58 | 19.66 |  |
|  | SeconEduc educ. | 150 | 50.85 |  |
|  | Post-secondary educ. | 68 | 23.05 | SeconEduc educ. |
| Household size | 1-3 | 71 | 24.07 |  |
|  | 4-6 | 134 | 45.42 |  |
|  | 7-9 | 49 | 16.61 |  |
|  | 10-12 | 25 | 8.47 |  |
|  | > 12 | 16 | 5.42 | 5.72 persons |
| Farming experience | 1-3 | 51 | 17.29 |  |
|  | 4-6 | 87 | 29.49 |  |
|  | 7-9 | 107 | 36.27 |  |
|  | 10-12 | 32 | 10.85 |  |
|  | > 12 | 18 | 6.10 | 6.71 years |
| Farm size (ha) | <1 | 69 | 26.78 |  |
|  | 1-3 | 157 | 53.22 |  |
|  | 4-6 | 56 | 17.29 |  |
|  | 7 \& above | 13 | 2.71 | 2.48 ha |
| Years of membership in social society/club | 1-3 | 66 | 22.37 |  |
|  | 4-6 | 83 | 28.14 |  |
|  | 7-9 | 121 | 41.02 |  |
|  | 10 \& above | 25 | 8.47 | 6.07 years |
| Credit provision | Yes | 253 | 85.76 |  |
|  | No | 42 | 14.24 | Yes |
| Head of household | Yes | 67 | 22.71 |  |
|  | No | 228 | 77.29 | No |
| Access to Extension services | Yes | 244 | 82.71 |  |
|  | No | 51 | 17.29 | Yes |

Source: Field survey, 2023

Table 2: Attitude of members towards participating in farmers local organization (FLOs)

| Statements leading to attitudes | Insignificant | Minor | Moderate | Major | Remark |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - Participation in the group has enhanced my farm output | 17 (5.76\%) | 25 (8.47\%) | 86 (29.15\%) | 167 (56.61\%)* | Favourable |
| - Participation in the group has improved my income | 23 (7.80\%) | 26 (8.81\%) | 79 (26.78\%) | 167 (56.61\%)* | Favourable |
| - Participation in the group has improved my knowledge of farming practices | 17 (5.76\%) | 41 (13.90\%) | 88 (29.83\%) | 149 (50.51\%)* | Favourable |
| - Participation in the Group has improved my living standard | 14 (4.76\%) | 37 (12.54\%) | 95 (32.20\%) | 149 (50.51\%)* | Favourable |
| Participation in the group has helped to improve skills | 24 (8.14\%) | 37 (12.54\%) | 93 (31.53\%) | 148 (50.17\%)* | Favourable |
| - Participation in the the group has helped in improving our linkage to input providers | 42 (14.23\%) | 82 (27.80\%) | 114(38.64\%) | 57 (19.32\%) | Unfavourable |
| - Participation in the the group has helped in improving people's good thinking about me | 37 (12.54\%) | 96 (32.54\%) | 103(34.92\%) | 62 (21.02\%) | Unfavourable |
| *50\% and above = Fa | rable attitude |  |  |  |  |
| Table 3: Categorization of the respondents based on their attitude towards participation in FLOs |  |  |  |  |  |
| Levels of attitudes towards FLOs |  |  |  | Frequency | Percent |
| Unfavourable (score: 18 \& below) |  |  |  | 37 | 12.54 |
| Favourable (score: >18) |  |  |  | 258 | 87.46 |
| Total |  |  |  | 295 | 100.0 |

Source: Field survey, 2023
Table 4: Respondents' livelihood status before and during membership of FLOs. N=295

| Livelihood status of rural women farmers | Livelihood class | Before membership of FLOs |  | During membership of FLOs |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Very low | 0.0-0.25 | 102 | 34.58 | 22 | 7.46 |
| Low | $0.26-0.50$ | 149 | 50.51 | 84 | 28.47 |
| High | 0.51-0.75 | 30 | 10.17 | 168 | 56.95 |
| Very high | 0.76-1.00 | 14 | 4.75 | 21 | 7.12 |

Source: Field survey, 2023
Table 5: Challenges limiting respondents from participating effectively in farmers' local organizations

| Challenges to farmers' participation | Mean | Standard Dev. | Rank |
| :--- | :--- | :--- | :--- |
| - Prevalence of corruption and dishonesty of leaders | $4.13^{*}$ | 0.58 | $1^{\text {st }}$ |
| - Members poor response to loan repayment | $4.08^{*}$ | 0.58 | $2^{\text {th }}$ |
| - Lack of government assistance | $4.08^{*}$ | 0.61 | $2^{\text {nd }}$ |
| - Presence of political influence | $4.01^{*}$ | 0.56 | $4^{\text {th }}$ |
| - Financial challenges | $3.89^{*}$ | 0.61 | $5^{\text {th }}$ |
| - Poor access to credit and other agricultural inputs | $3.81^{*}$ | 0.66 | $6^{\text {th }}$ |
| - Poor leadership style of the executives | $3.81^{*}$ | 0.69 | $6^{\text {th }}$ |
| - Lack of awareness | $3.76^{*}$ | 0.62 | $8^{\text {th }}$ |
| -Socio-economic barriers like age, marital status and educational | $3.73^{*}$ | 0.74 | $9^{\text {th }}$ |
| level |  |  | $10^{\text {th }}$ |
| - Time and duration of the organization's activities | $3.66^{*}$ | 0.73 | $11^{\text {th }}$ |
| - Cultural and traditional norms and values | $3.60^{*}$ | 0.78 | $12^{\text {th }}$ |
| - Poor dissemination of meeting days | $3.41^{*}$ | 0.81 | $13^{\text {th }}$ |
| - Clashing of organization's meeting days and community market | $3.24^{*}$ | 0.88 | $14^{\text {th }}$ |
| days | 2.8 | 0.83 | $15^{\text {th }}$ |
| Poor flow of communication and information | 2.4 | 0.78 |  |
| - High monthly dues |  |  |  |

*Agreed (mean $\geq 3.0$ )

Table 6: Relationship between respondents' socio-economic characteristics and their attitude on participating in farmers local organizations

| Socio-economic variables | $\mathbf{r}-$ value | P - value |
| :--- | :---: | :--- |
| Marital status | 0.218 | 0.061 |
| Age | $0.398^{* *}$ | 0.000 |
| Level of formal education | $-0.217^{*}$ | -0.002 |
| Household size | $0.443^{* *}$ | 0.001 |
| Farm size | 0.541 | 0.190 |
| Years of Membership of FLOs | $0.362^{*}$ | 0.000 |
| Farm income | 0.304 | 0.053 |

**Significant at 1\% level; *Significant at the 5\% level; $p \leq 0.05$
Table 7: Difference in rural women farmers' status before and after membership of FLOs

| Status level | Frequency | Proportions | Prob. Level |
| :--- | :---: | :---: | :---: |
| - Low Status (Status before <br> membership of FLOs) | 127 | 0.431 | 0.001 |
| - High Status (Status during <br> membership of FLOs) | 168 | 0.569 |  |
| Total | 295 | 1.000 |  |

Source: Field survey, 2023

