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DETERMINANTS OF MEMBERSHIP PARTICIPATION IN AGRICULTURAL COOPERATIVE SOCIETIES AMONG RURAL WOMEN IN UMUAHIA NORTH LOCAL GOVERNMENT AREA, ABIA STATE, NIGERIA

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***Detailed author information and related declarations are provided in the final section of this article.*

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ABSTRACT

This study analysed the determinants of membership participation in Agricultural Cooperative Societies among rural women in Umuahia North Local Government Area, Abia State, Nigeria. A multi-stage sampling procedure was employed in the sampling of 80 respondents that were involved in the survey. Structured copies of questionnaire were used to get responses from the women. Both descriptive and inferential statistics analysis were used to analyse the data. Major findings showed that the rural women belonged mostly to Credit and Savings Cooperative (68.75%), Crop-based Cooperatives (57.5%) and Input Supply Cooperatives and Marketing Cooperatives (50%) among others. Also, Training programs (97.5%), Market information (96.25%) and collective marketing of farm produce (85%) came 1st, 2nd and 3rd as the major reasons for membership participation in agricultural societies' activities by the respondents. Further results showed that the women participated highly in the various agricultural cooperatives with a grand mean of 2.30 which is higher than the bench mark mean of 2.00. There is a significant positive relationship between respondents' reasons for participating in agricultural cooperative societies and their level of participation in the Societies ($r = 0.248$, $p = 0.027$). The study concluded that the determinants for membership participation in Cooperatives Societies among the rural women are the greater benefits they stand to get to solve their farming needs and therefore recommends that Cooperative Societies and policymakers should prioritize understanding and responding to members' reasons for joining while designing targeted interventions in the study area.

Keywords: Determinants, Membership participation, Rural women, Cooperative societies

Introduction

Rural women play a significant role in agricultural production, food security, and rural development. According to FAO (2022), they contribute nearly 50% of the agricultural workforce in developing countries, engaging in crop cultivation, livestock rearing, and agro-processing. They also manage household nutrition by producing food for family consumption (IFAD, 2021). However, rural women often lack access to land, credit, and agricultural inputs, which limits their productivity (World Bank, 2023). Despite their relevance, women face challenges in agricultural production and hence creating the need to join agricultural cooperatives. Agricultural Cooperative Societies are voluntary organizations formed by farmers to collectively manage agricultural production, marketing, and supply of inputs (ICA, 2022). These cooperatives are designed to empower farmers by pooling resources to achieve economies of scale, increase bargaining power, and access credit facilities (FAO, 2022).

They are crucial in promoting sustainable farming practices, rural employment, and food security. By fostering collective decision-making, cooperatives support rural farmers, particularly women, in overcoming challenges related to market access, financing, and technology adoption. Also, Agricultural Cooperatives play a crucial role in empowering women farmers and improving their livelihoods. Firstly, they provide access to financial services, including loans and credit, enabling women to invest in productive agricultural activities (FAO, 2022). Cooperatives enhance women's access to agricultural inputs such as fertilizers, improved seeds, and farming equipment at subsidized prices, increasing productivity (ICA, 2022). This access enables rural women to expand their farming operations and improve food security. Thirdly, agricultural cooperatives facilitate capacity-building programs, offering training on modern farming techniques, business management, and value addition. This knowledge empowers women to adopt innovative practices and increase their earnings. Also, cooperatives create networking opportunities, allowing women to build market connections and collectively bargain for better prices (World Bank, 2022). These structures promote women's economic independence, reducing gender disparities in agricultural participation (FAO, 2022). Nevertheless, rural women tend to participate actively depending on their perceived greater benefits they stand to get in solving their felt farming needs. Hence, emphasizing the need for this study to ascertain what those determinants are, so as to enable targeted interventions in those areas to enhance robust effective participation in agricultural cooperatives by the rural women in the study area. The following specific objectives guided the study: identify various agricultural cooperative Societies the respondents belong to; ascertain reasons from respondents for

belonging to the various agricultural Cooperative societies, and determine the level of participation of the respondents in the various agricultural cooperatives they belong to.

METHODOLOGY

Study Area

The study was conducted in Umuahia North Local Government Area (LGA) in Abia State, Nigeria. Umuahia North is one of the 17 Local Government Areas in the state and serves as the administrative headquarters of Abia State. It is located within the southeastern part of Nigeria, lying between longitude 7°23'E and 8°21'E and latitude 5°50'N and 6°01'N.

Umuahia North is characterized by a tropical rainforest climate, with distinct wet and dry seasons. The wet season typically extends from April to October, while the dry season lasts from November to March. The average annual rainfall is about 2,200mm, supporting diverse agricultural activities. The area is dominated by the Igbo ethnic group, with farming being a primary economic activity.

Agriculture plays a crucial role in the local economy, with the cultivation of staple crops such as cassava, yam, maize, rice, vegetables, and melon. Livestock farming, including poultry, goat, sheep, pig, and fish farming, is also common. Umuahia North benefits from its location as a trade and administrative hub, providing access to agricultural markets and cooperative societies that support local farmers.

Population of the Study

The population of the study comprised of all the registered women farmers who are members of agricultural Cooperative Societies in Umuahia North Local Government Area, Abia State, Nigeria.

Sample and Sampling Procedure

A multi-stage random sampling technique was used to select respondents for the study. In the first stage, Umuahia North LGA was purposively selected as the study area because of the high level of active participation by rural women in agricultural cooperative societies and the significant involvement of women in agricultural production.

At Stage Two, registered Agricultural Cooperative Societies within Umuahia North LGA was gotten from Corporate Affairs Commission (CAC), Abia State. From this list, a number of cooperative societies and the communities in which they are located was identified. At the third stage, four autonomous communities having at least two Agricultural Cooperative Societies were purposively chosen making a

total of 8 farmers’ cooperatives. The four communities and the cooperative societies were tabulated below:

Communities	Agricultural Cooperative Societies
Ndume	Akwada Fishery farmers, cooperative Society
	Umunna Ndume Oil Palm Processors Cooperative Society
Nkwoegwu	Nkwoegwu Multipurpose Farmers’ Cooperative Society
	Omega farmers’ Cooperative Society, Okaiuga Nkwoegwu
Ossah	Uzodinma Cassava processing farmers’ cooperative society, Ezianya Ossah
	Unity Farmers’ Cooperative Society, Ossah
Isingwu	Ugwumba Cassava growers’ cooperative society, Isingwu
	Otuobi Poultry Farmers’ Cooperative Societies

At the fourth stage, ten women (10) farmers were randomly selected from each of the eight (8) cooperative societies in the four communities, resulting in a total sample size of eighty 80 respondents sampled for the Study.

Measurement of Variables

Objective I: Identify Various Agricultural Cooperative Societies the respondents belong to

A list of recognized agricultural cooperative societies in Umuahia North Local Government Area was obtained from CAC and grouped into: Crop based, Livestock based, agro-processing, input supply, marketing of produce, multipurpose etc. Respondents were required to tick a “Yes” or “No” against each society to indicate membership. Data were analyzed using means and percentages.

Objective II: Ascertain Reasons for Belonging to the Various Agricultural Cooperative Societies

A list of potential reasons (such as access to credit facilities, training opportunities, market information, and social networking) were presented to respondents. They were required to tick “Yes” or “No” against each reason. The responses were computed using means and percentages.

Objective III: Determine the Level of Participation of the Respondents in the Various Agricultural Cooperatives They Belong To

The level of participation was measured using a 3-point Likert-type rating scale as follows: Always = 3, Occasionally = 2, and Never = 1. Respondents’ mean scores were computed for participation in various cooperative activities by summing the weighted responses. A bench mark mean score of 2.0 was obtained and used for this objective and thus $3+2+1 = 6/3 = 2.0$. The following decision rules were adopted: Mean scores between 1.0 – 1.49 indicate low participation. Mean scores between 1.50 – 1.99 indicate moderate participation. Mean scores of 2.0 and above indicate high participation

Test of Hypothesis

H0: which states that there is no significant relationship between the respondents’ reasons for participation and their level of participation in the Cooperative Societies

The model is stated thus;

$$PPMC(r) = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{(n\sum X)^2 - (\sum X^2)(n\sum Y^2) - (n\sum Y)^2}} \dots \dots \dots \text{eq 5}$$

Where,

r = correlation coefficient

Y = respondents’ reasons for participation (Mean scores)

X = level of participation (Mean scores)

N = sample size of women farmers that belong to Cooperative Societies

RESULTS AND DISCUSSION

Agricultural Cooperative Societies Respondents belong to

Distribution of the respondents according various agricultural cooperative Societies the respondents belong to is presented in Table 1.

Table 1: Various agricultural cooperative Societies

Agricultural cooperative Societies	Frequency*	Percentage
Crop-based Cooperative	46	57.5
Livestock-based Cooperative	9	11.25
Agro-processing Cooperative	37	46.25
Input Supply Cooperative	40	50
Marketing Cooperative	40	50
Multipurpose Cooperative	41	51.25
Credit and Savings Cooperative	55	68.75

Source: Field survey (2025). Multiple responses recorded

The most common form of cooperative among respondents was the Credit and Savings Cooperative, with 68.75% membership. This high level of participation demonstrates the critical role that access to financial resources plays in women’s agricultural activities. Credit cooperatives offer flexible lending and savings options that are particularly beneficial for women who may lack access to formal banking institutions. These platforms help members fund farm inputs, household needs, or small agribusinesses (Yusuf & Aliu, 2021)). The implication is that strengthening credit cooperatives could significantly improve rural women’s financial inclusion, enabling them to invest more effectively in agriculture and diversify income sources.

Crop-based Cooperatives also had significant representation, with 57.5% of respondents reporting membership. This aligns with the predominantly agrarian nature of Umuahia North, where crop production is a major economic activity. Crop cooperatives typically help members gain access to inputs, land preparation tools, and training on good agricultural practices (Danlami & Mohammed, 2022). Their

prominence suggests that enhancing support to crop cooperatives through improved training and input delivery systems would directly impact productivity and sustainability of women farmers.

Input Supply Cooperatives and Marketing Cooperatives were each reported by 50% of the women surveyed. These cooperatives are essential in ensuring that members can access subsidized or bulk inputs like seeds and fertilizers, and sell their produce collectively to avoid market exploitation. Their dual role in input procurement and output marketing makes them key to enhancing farm productivity and profitability (Oladipo & James, 2023). Therefore, policies promoting efficient input distribution and collective marketing strategies through these cooperatives can help reduce costs and improve income stability for rural women.

Multipurpose Cooperatives were noted by 51.25% of respondents. These cooperatives combine several functions—credit, marketing, production, and social welfare—making them attractive to women engaged in multiple income-generating activities. Their versatility allows members to benefit from diverse services within a single organization, which is cost-effective and time-saving for rural women managing both farms and households (Kehinde & Amaka, 2020). Supporting these cooperatives with capacity building and resource mobilization could enhance their ability to meet the complex and varied needs of rural women.

Participation in Agro-processing Cooperatives was reported by 46.25% of the respondents. These cooperatives are especially relevant for women involved in value addition of agricultural products, such as cassava, palm oil, or groundnut processing. Through shared machinery, technical training, and group marketing, agro-processing cooperatives help rural women increase product quality and market value (Fatima & Okoro, 2021). Encouraging investment in agro-processing infrastructure and skills training within these cooperatives could foster higher incomes and reduce post-harvest losses among rural women. Lastly, Livestock-based Cooperatives had the lowest participation rate at 11.25%, possibly due to lower livestock farming prevalence or higher capital requirements. Nevertheless, these cooperatives can play a key role in improving animal health, breed quality, and access to feed and veterinary services (Bello & Tanko, 2022). Targeted support for livestock cooperatives could diversify rural women’s livelihood options and enhance food security.

Reasons for membership participation in agricultural cooperative societies

Distribution of the respondents according to their reasons for participating in the various agricultural Cooperative societies is presented in Table 2.

Table 2: Reasons for participating the various agricultural Cooperative societies

Reasons for participating in Cooperative societies	Frequency*	Percentage
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Access to credit facilities	41	51.25
Training opportunities	78	97.5
Market information	77	96.25
Social networking	62	77.5
Access to input supply	57	71.25
Government support programs	52	65
Higher bargaining power	57	71.25
Reduction of production costs	19	23.75
Better access to extension services	26	32.5
Group participation in decision-making	60	75
Risk-sharing among members	20	25
Improved access to storage facilities	65	81.25
Easier access to mechanized farming services	25	31.25
Collaboration in agricultural processing	60	75
Collective marketing of farm produce	68	85

Source: Field survey (2025). Multiple responses recorded

Among the various reasons for cooperative membership, training opportunities emerged as the most significant, with 97.5% of respondents emphasizing its importance. This overwhelming majority highlights how rural women in Umuahia North view cooperatives as vital channels for gaining new knowledge and skills related to agriculture. Training programs offered by cooperatives often include modern farming techniques, pest and disease management, post-harvest handling, and financial literacy. Access to such education empowers women to improve crop yields, reduce losses, and manage their enterprises more efficiently (Ezeh & Nwafor, 2024). Moreover, cooperative-based training enhances women’s confidence and leadership capacity, enabling them to take more active roles both within the cooperative and their communities. This also contributes to the sustainability of cooperatives, as informed members are better equipped to participate in decision-making and governance.

Market information, cited by 96.25% of respondents, is another crucial reason driving cooperative membership. For rural women farmers who often face barriers to market access, cooperatives act as information hubs that provide timely data on market prices, demand trends, and buyer preferences. This information helps women avoid exploitation by middlemen, make strategic sales, and plan production according to market needs (Nwachukwu & Okeke, 2023). The ability to access market intelligence through cooperative networks reduces uncertainty and improves bargaining power, which is essential in volatile agricultural markets. Furthermore, cooperatives can facilitate direct linkages with buyers and processors, shortening the value chain and increasing farmers’ share of profits. The implication is that strengthening the capacity of cooperatives to collect, analyze, and disseminate market information will enhance members’ profitability and resilience.

The third major reason, collective marketing of farm produce, was identified by 85% of respondents. This reflects the well-documented advantage of pooling produce to achieve economies of scale, reduce transaction costs, and increase negotiating leverage. By marketing collectively, women farmers can access larger and more lucrative markets that would otherwise be inaccessible individually (Afolabi & Nnaji, 2020)). Collective marketing also provides opportunities for better quality control, branding, and packaging, which can improve product value and customer satisfaction. The cooperative structure supports trust and coordination among members, which are essential for organizing group sales and meeting market demands consistently. The implications are significant: promoting collective marketing strategies and investing in infrastructure such as storage, transportation, and quality assurance within cooperatives can substantially raise women farmers’ incomes and market competitiveness.

Among the reasons for belonging to agricultural cooperative societies, reduction of production costs was cited by only 23.75% of respondents, making it the least frequently mentioned motivation. This low percentage suggests that many rural women in Umuahia North may not yet fully recognize or benefit from the potential cost-saving advantages cooperatives can offer. Typically, cooperatives help reduce production costs by enabling members to purchase farm inputs—such as seeds, fertilizers, and agrochemicals—in bulk at discounted rates, and by facilitating the shared use of farming equipment. However, the limited emphasis on this benefit could indicate gaps in the cooperatives’ ability to organize collective procurement or a lack of effective coordination and communication with members about such opportunities. Furthermore, rural women might prioritize more immediate benefits such as training and market information, which are easier to perceive and directly linked to improved productivity and income. Cost reduction, although important, may be less visible or less well-promoted within the cooperative framework. Despite this, focusing on reducing production costs through cooperative efforts has substantial potential to enhance members’ profitability. By strengthening collective input supply systems and promoting awareness about cost-sharing benefits, cooperatives can empower women farmers to optimize their expenditures and increase their net returns (Oluwatosin & Emmanuel, 2023). This could also encourage higher membership retention and active participation.

Level of Participation of the Respondents in the Various Agricultural Cooperatives

Table 3: Distribution of respondents based on Level of participation in cooperatives

Cooperative Activities	Always	Occasionally	Never (1)	Total	Mean	Remark
	-3	-2				
Attending meetings	75	2	3	232	2.9	Accepted
Contributing financially	31	46	3	188	2.35	Accepted

Participating in decision-making	57	13	10	205	2.63	Accepted
Accessing cooperative services	56	20	4	212	2.65	Accepted
Engaging in cooperative projects	14	66	0	174	2.17	Accepted
Benefiting from cooperative training programs	11	63	6	165	2.06	Accepted
Contributing to cooperative investments	14	59	7	167	2.09	Accepted
Taking leadership roles in the cooperative	17	19	44	133	1.66	Rejected
Using cooperative marketing channels	46	20	44	192	2.4	Accepted
Participating in cooperative-organized farm exhibitions	54	4	22	192	2.4	Accepted
Applying for cooperative loans and grants	17	48	15	162	2.03	Accepted
Helping to recruit new cooperative members	18	58	4	174	2.18	Accepted
Advocating for cooperative policies and benefits	53	17	10	203	2.54	Accepted
Assisting in cooperative infrastructure development	19	44	17	162	2.03	Accepted
Providing feedback and suggestions	47	15	18	189	2.36	Accepted
Grand mean					2.3	Accepted

Source: Field Survey, 2025

Attending Meetings (Mean = 2.90)

With the highest mean score of 2.90, attending cooperative meetings is the most consistently practiced activity among respondents. This near-universal engagement underscores the importance of meetings as the primary avenue for communication, information exchange, and collective decision-making in cooperative societies (Ezeh & Nwafor, 2024). Regular attendance fosters transparency and accountability, while also ensuring members remain updated on cooperative affairs. The overwhelming participation suggests a strong sense of commitment and recognition of meetings as critical for sustaining cooperative functionality. Moreover, consistent meeting attendance likely facilitates networking and social cohesion, which are vital in rural settings for mutual support and knowledge sharing.

Accessing Cooperative Services (Mean = 2.65)

Accessing services provided by cooperatives ranks second in participation, with a mean of 2.65. These services typically include credit access, input supplies, training, and marketing assistance. The high engagement here reflects the practical benefits that cooperatives deliver to women, supporting their agricultural productivity and household livelihoods (Nwachukwu & Okeke, 2023). While a majority of members regularly utilize these services, some participate occasionally or never, suggesting that barriers such as lack of awareness, eligibility criteria, or distance might limit full access. This points to the need for cooperatives to enhance outreach and tailor services to reach less active members, ensuring equitable benefits distribution.

Participating in Decision-Making (Mean = 2.63)

Decision-making participation, with a mean score of 2.63, indicates active involvement of women in governance and policy formulation within cooperatives. This engagement is crucial for empowering members and fostering a democratic cooperative culture (Afolabi & Nnaji, 2020). Women's input in decisions about resource allocation, project implementation, and leadership selection ensures their needs and priorities are addressed. However, the fact that some members only occasionally or never participate reveals ongoing challenges such as gender norms, limited confidence, or insufficient training in leadership skills. Addressing these challenges through targeted capacity building can deepen inclusivity and strengthen cooperative governance.

Advocating for Cooperative Policies and Benefits (Mean = 2.54)

Advocacy for cooperative policies and benefits holds the fourth-highest participation mean at 2.54. This reflects the active role women take in promoting cooperative interests, lobbying for favorable policies, and ensuring members receive adequate support from government and other stakeholders. Effective advocacy can lead to enhanced funding, improved extension services, and better regulatory frameworks

(Ezeh & Nwafor, 2024). The participation level suggests a growing awareness among women of their collective power to influence agricultural development. Strengthening advocacy skills through training and networking opportunities could further amplify their voice in policy arenas.

5. Contributing Financially (Mean = 2.35)

Financial contribution is another key cooperative activity, with a mean of 2.35. This reflects members' willingness to invest money into cooperative funds, which are critical for sustaining operations, providing loans, and financing projects. Regular financial contributions signify trust in the cooperative's management and a commitment to its long-term success (Nwachukwu & Okeke, 2023). However, the lower mean compared to other activities may indicate constraints such as limited disposable income, irregular cash flow, or concerns about financial transparency. Addressing these concerns by improving financial management practices and offering flexible contribution schemes could encourage higher participation.

Taking Leadership Roles in the Cooperative (Mean = 1.66)

Among all cooperative activities, taking leadership roles has the lowest mean participation score of 1.66, indicating that most respondents rarely or never assume leadership positions within their cooperatives. This low level of leadership involvement is a critical issue as it reflects barriers that rural women face in attaining influential roles that can shape cooperative policies and drive community development (Akinbode & Olaleye, 2023). Several factors may contribute to this limited participation in leadership. Socio-cultural norms and gender stereotypes in many rural Nigerian communities often restrict women's authority and decision-making power, relegating them to subordinate roles within both the household and cooperative settings (Nwafor & Ezeh, 2021). Additionally, women may lack the necessary confidence, education, or training to compete for leadership positions, especially when men or more educated members dominate the cooperative hierarchy. The low engagement in leadership also has practical implications. Without adequate female representation in leadership, cooperatives risk overlooking women's specific needs and perspectives, which can result in policies and projects that do not fully empower or benefit female members. It may also perpetuate existing inequalities and reduce the motivation of women to participate actively in other cooperative activities.

Addressing this challenge requires deliberate interventions such as leadership training programs tailored for women, mentorship schemes, and the promotion of gender-sensitive policies within cooperatives. Encouraging women's political participation and creating supportive environments can increase their confidence and opportunities to assume leadership roles. This, in turn, would enhance cooperative

governance, ensure diverse viewpoints are considered, and improve the overall effectiveness of these societies. Generally, with a grand mean of 2.30 which is higher than the bench mark mean of 2.00, it shows that the women’s level of participation in agricultural cooperatives is high.

Relationship between the respondents’ reasons for participation and their level of participation in Agricultural Cooperatives

H0: There is no significant relationship between the respondents’ reasons for participation and their level of participation in agricultural cooperative societies, the result is summarized below:

Table 4: Relationship between the respondents’ reasons for participation and their level of participation

		Reason For Participation	Level of Participation
Reason For Participation	Pearson Correlation	1	0.248*
	Sig. (2-tailed)		0.027
	N	80	80
Level Of Participation	Pearson Correlation	0.248*	1
	Sig. (2-tailed)	0.027	
	N	80	80

*. Correlation is significant at the 0.05 level (2-tailed).

The analysis of the hypothesis reveals a significant positive relationship between respondents’ reasons for participating in agricultural cooperative societies and their actual level of participation ($r = 0.248$, $p = 0.027$). This indicates that the motivations or incentives that drive rural women to join cooperatives such as access to credit facilities, training opportunities, market information, and social networking; play a crucial role in determining how actively they engage in cooperative activities. The statistically significant correlation suggests that when women perceive greater benefits or have stronger reasons to participate, they are more likely to be actively involved in cooperative meetings, decision-making processes, financial contributions, and utilization of cooperative services.

This finding aligns with the view that the reasons underpinning cooperative membership directly influence members' engagement and commitment (Mwangi & Muthoni, 2022). In rural agricultural settings, where women face numerous challenges such as limited access to resources and markets, cooperatives serve not only as economic platforms but also as social support networks. When these motivations are adequately addressed by cooperatives through relevant services and benefits, they can

stimulate increased participation, fostering a stronger sense of ownership and responsibility among members.

CONCLUSION AND RECOMMENDATIONS

The study concluded that the determinants for membership participation in Cooperatives Societies among the rural women are the greater benefits they stand to get to solve their farming needs such as Training programs, Market information and collective marketing of farm produce. It therefore recommends that Cooperative Societies and policymakers should prioritize understanding and responding to members' reasons for joining. By designing targeted interventions—such as enhanced credit schemes, capacity-building trainings, improved market linkages, and inclusive social activities—cooperatives can boost member participation. This, in turn, can enhance the cooperatives' overall effectiveness, sustainability, and contribution to rural women's empowerment and agricultural development. Strengthening the link between members' motivations and their participation is therefore critical for maximizing the impact of cooperative societies in rural communities.

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