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ASSESSMENT OF PARTICIPATION OF WOMEN IN LEADERSHIP IN AGRICULTURAL COOPERATIVES IN SOUTH -SOUTH NIGERIA

[1]Owan, T.O., [1]Ogbanje, E.C.,[1]Ashiko, F.T.G. and [2]Abah, D.
1 Department of Agricultural Marketing and Cooperatives, Joseph Sarwuan Tarka University, Makurdi, Benue State, Nigeria
2 Department of Agricultural Economics, Joseph Sarwuan Tarka University, Makurdi, Benue State, Nigeria
Email: owantonica@yahoo.com; +234 803 750 2140

Abstract
The study assessed participation of women in leadership in agricultural cooperatives in South-South Nigeria. Stratified sampling technique was used to select sample size of 332 respondents, Primary data were collected with the aid of a structured questionnaire. Descriptive and inferential statistics were used for data analysis. Findings showed women occupied mainly (32.83%) the position of treasurer. Although, women's participation in meeting (68.98%) and commitment to financial obligations (58.43%) were high, their participation in leadership was low (63.86%). The results of the binary logistic regression showed that the z-statistics of age (6.57), marital status (-4.08), years of schooling (6.04) and years of cooperative membership (6.66) were statistically significant ($p<0.01$). It was recommended that policies aimed at improving participation of women in leadership of agricultural cooperative societies should place more emphasis on age, formal education and duration of membership.
Keywords: *Assessment, cooperatives, women, participation, leadership.*

1.0 Introduction

Agricultural cooperatives are crucial for the socio-economic development of rural communities, providing services such as credit facilities, market access, and technical support to farmers. In Nigeria, where agriculture is a dominant sector of the economy, these cooperatives play a critical role in facilitating access to resources, information, and markets for rural communities (Olowa, 2015). Agricultural cooperatives have long served as a foundation for rural development and poverty alleviation, particularly in Nigeria, where the agricultural sector contributes approximately 24% to the national

GDP (World Bank, 2020). Similarly, in South-South geopolitical zone, agriculture is a cornerstone of the economy, with cooperatives playing a significant role in the sector's growth and sustainability (Food and Agriculture Organization, 2017). The geopolitical zone, known for its rich natural resources and agricultural activities, relies heavily on cooperative structures to enhance productivity and ensure sustainable development (Onah, Ume, Nwangwu, Ejiofor, Omeje & Oranu, 2024)

Farmers multipurpose cooperative societies offer platforms to improve agricultural production, as they play a key role in regulating the market where women outnumber their male counterparts (Anigbogu, Taiwo and Francis, 2016). In spite this importance of cooperative, the traditional gender roles, cultural expectations, and historical inequalities continue to shape participation and influence within agricultural cooperatives. Women, in particular, face several barriers in accessing leadership roles, decision-making power, and equal distribution of benefits. According to FAO (2021), women make up about 40% of the agricultural workforce in Nigeria. However, they are often underrepresented in cooperative leadership roles. Ogunlela and Mukhtar (2009) reported that women face structural barriers that limit their access to decision-making positions within cooperatives, reducing their influence on key decisions related to resource allocation and strategy. Okoro, Onah and Eze (2021) who worked on survey of agricultural cooperatives in the South-South zone observed that only 20% of cooperative leaders were women. This low representation in leadership positions translates into disparities in the distribution of cooperative benefits, with male members often receiving priority in access to loans, farm inputs, and training opportunities.

2.0 Objectives of the study

The specific objectives of this study were to:

i. describe the socioeconomic characteristics of members of agricultural cooperative societies in Nigeria's south-south region; and
ii. assess the participation of women in the leadership of agricultural cooperative societies in the region.

It was hypothesized that socioeconomic characteristics of members of agricultural cooperative societies have no significant effect on the participation of women in the leadership of the cooperative societies.

Women make essential contributions to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes. Many of these activities are not defined as economically active employment in national accounts but they are essential to the well-being of rural households (Doss, 2011). Nevertheless, there has been less recognition to women contribute to agricultural and food security; women's work in the agriculture and food security often remains invisible (Marowa, 2022).

Women play a significant role in the agricultural labour force and in agricultural activities, although to a varying degree. Consequently, their contribution to agricultural

output is undoubtedly extremely significant, although difficult to quantify with any accuracy. It has often been claimed that women produce 60-80 percent of food. However, assigning contributions to agricultural outputs by gender is problematic because in most agricultural households both men and women are involved in crop production. Policy-makers, donors and development practitioners need information and analysis that reflect the diversity of the contributions which women make and the specific challenges they are confronted with in order to make gender-aware decisions about the sector(Patil & Babu, 2019)

Women's equal participation and leadership in political and public life are essential to achieving the Sustainable Development Goals by 2030. However, data show that women are underrepresented at all levels of decision-making worldwide and that achieving gender parity in political life is far off. The participation of women in leadership is significant for the following reasons among others:

Diverse Perspectives: Women bring different life experiences and viewpoints, which lead to more balanced and comprehensive decision-making.

Improved Performance: Studies have shown that organizations with higher gender diversity, particularly in leadership roles, tend to perform better financially.

Role Models: Women in leadership positions serve as role models, inspiring young girls and women to aspire to similar roles.

Inclusive Policies: Female leaders often champion policies that promote gender equality and address issues that disproportionately affect women.

However, the following challenges to the participation of women in leadership are obvious:

Bias and Stereotypes: Women often face unconscious biases and stereotypes that question their leadership abilities.

Work-Life Balance: Balancing professional and personal responsibilities can be particularly challenging for women due to societal expectations.

Lack of Mentorship: There is often a shortage of female mentors and sponsors to guide and support aspiring women leaders.

Women have made significant strides in leadership, but there's still much work to be done to achieve true equality. Hence, the following approaches are important for encouraging women to participate actively in leadership:

Promote Mentorship Programs: Establish mentorship programs to support and guide women in their careers.

Address Bias: Conduct training to recognize and mitigate unconscious biases.

Work-Life Policies: Implement policies that support work-life balance, such as flexible working hours and parental leave.

Education and Advocacy: Promote education and advocacy programs that highlight the importance of women in leadership roles.

3.0 Methodology

The study was carried out in the South-south region of Nigeria. The South-South geopolitical zone is one of the six zones in Nigeria, located in the country's Southern region. The region consists of Akwa-Ibom, Bayelsa, Cross River, Delta, Edo and Rivers States. The Niger Delta is the delta of the Niger River sitting directly on the Gulf of Guinea on the Atlantic Ocean in Nigeria (Ojo, Ogundeji and Alimi, 2020). The South-South geopolitical zone extends to about 70,000km^2 (27,000 sqm) and makes up 7.5%

of Nigeria landmass. In 2000, Abia, Imo and Ondo were added to form Niger Delta. Climatically, the region is equatorial, with mean maximum temperature ranges from 30-32^{0}c in the south and annual rainfall in the zone varies from 750mm - 2000mm all year round (Ikehi and Zimoghen, 2015). The South-South is ethnically diverse, with major ethnic groups including the Ijaw, Urhobo, Itsekiri, Ibibio, Efik, and Kalabari, among others. Each ethnic group has its unique language, customs, and cultural festivals. Notable cultural events include the Calabar Carnival (Cross River State) and Ekpe Festival (Efik people). The zone is central to Nigeria's oil and gas industry, contributing a significant percentage of the country's oil production (Izah, 2018). Delta, Bayelsa, and Rivers States are among Nigeria's top oil-producing regions. In addition to oil, the zone has rich agricultural resources like rubber, palm oil, timber, and fish, supporting agriculture and fishing industries. Agriculture in Nigeria's South-South geopolitical zone plays a crucial role in the local economy, providing employment and supporting rural communities. While the region is widely known for its oil and gas resources, it also has a strong agricultural base due to fertile land and favorable weather conditions. Some of the major crops grown in the area include Oil Palm, which supports the production of palm oil, palm kernel oil, and other by-products, rubber which supports Nigeria's rubber industry. Other crops cultivated in the zone include cassava, yam cocoyam, plantain and banana. The South-South, being largely coastal, has a thriving fishing industry '(Alexander et al., 2018; Ukwayi et al., 2018). Livestock farming, though less prominent than in Northern Nigeria, still plays a role in the South-South, particularly in the rearing of poultry, goats, and pigs. Poultry farming is especially popular as it provides eggs and meat for local consumption.

Population of the Study

The population of the study comprises members of all the agricultural cooperatives in south-south States of Nigeria, Akwa-Ibom, Cross River, Rivers, Bayelsa, Delta and Edo States. Available information from various cooperative offices indicated that there are 1,955 registered members of agricultural cooperatives. Further investigation revealed that the population comprised 1,113 and 842 male and female members, respectively.

Sample size and Sampling Techniques

Stratified random sampling technique was used to select the respondents for the study. Male and female members of agricultural cooperatives represented the two strata for the study. The application of the technique involved the adoption of Taro Yamane formula for sample size determination .

$$n = \frac{N}{1 + N(e^2)}$$

Where:

n = sample size

N = Total population

e = Margin of error (typically 5%, or 0.05)
Using this formula, we can calculate the sample size as follows:

$$n = \frac{1{,}955}{1 + 1{,}955(0.0025)}$$

$$n = 332$$

Data Collection

Primary data for the study were obtained with the aid of a structured questionnaire. Officers of cooperative societies assisted in accessing the respondents.

Data Analysis

The binary logistic regression was used to test hypothesis two. It was specified as follows:

The binary logistic regression was used to test hypothesis two. It was specified as follows:

$$zi = lnY\frac{P}{1-P} = lnY = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6$$

Where,

Y = level of participation in leadership (1=high, 0=low)

$X_1 = Age\ (years)$

$X_2 = Marital\ status\ (1 = Single, 0\ otherwise)$

$X_3 = Household\ size\ (number\ of\ people\ in\ a\ household)$

$X_4 = Years\ of\ schooling\ (years)$

$X_5 = Farming\ experience\ (years)$

$X_6 = Years\ of\ cooperative\ society\ membership\ (years)$

4.0 Results and Discussions

4.1 Socioeconomic Characteristics of the Respondents

Table 1 presents an analysis of the socioeconomic characteristics of the respondents, which provides important insights into the demographic profile and context of the study. The findings show that majority (52.11%) of the respondents were male, while the females constituted 47.89%, reflecting a slight gender imbalance, though not an overwhelming one. This is consistent with broader trends in research in Nigeria, where male dominance in various social and professional domains often occurs due to cultural and societal factors. This gender disparity is frequently observed in many academic, political, and business settings across the country, where traditional gender roles and expectations may skew participation toward men (Akinboye, 2019; Oludayo et al., 2021).

Table 1 also shows that 26.81% of the respondents fell within 45 to 54-years. This age group consists primarily of middle-aged adults, who are typically well-versed in societal dynamics and likely to possess both personal and professional insights into gender-related

issues. Their position in society, often occupying leadership or managerial roles, makes them particularly adept at assessing and engaging with gender dynamics in the management of cooperative societies. This demographic is also seen as key in understanding the long-term impact of sociocultural norms on gender equality in communal activities (Hussain et al., 2020).

Table 1 further reveals that majority (71.69%) of respondents reported having between 5-8 members in their households. This family structure is indicative of typical Nigerian households, where extended family systems and communal living often prevail. Larger family sizes are often tied to cultural expectations, with family labor playing a significant role in economic activities, thus mitigating household expenditures. This can also impact the respondents' views on gender roles, particularly in how resources and responsibilities are distributed within families and cooperative structures (Omoniyi, 2018). The large family size is also often reflective of the importance placed on social cohesion and collective labor in Nigerian society, which could influence cooperative society dynamics and gender roles within these groups.

Table 1 reveals that majority (51.81%) had between 1-7 years of experience with cooperative societies, while 41.57% had been involved for 8 -14 years. This suggests a level of familiarity and expertise in managing gender dynamics within cooperative structures. Experience in such organizations often provides individuals with a nuanced understanding of the role that gender plays in decision-making, resource distribution, and conflict resolution within these groups. Cooperatives, being collective organizations, often present opportunities for both women and men to participate in governance, but the gendered nature of power and influence in such spaces remains an important consideration (Kabbah *et al.,* 2018).

Table 1 shows that, the majority (61.75%) of the respondents had completed secondary school. This level of education indicates a reasonable understanding of cooperative management and gender dynamics. Education plays a crucial role in shaping people's perceptions of gender equality, and individuals with secondary education are typically more likely to engage critically with issues like gender disparity and power structures in cooperative settings (Njoku, 2016). The link between educational attainment and gender equity in cooperative management is significant, as it equips individuals with the tools to challenge entrenched gender norms and advocate for more inclusive policies.

Finally, the marital status of the respondents shows that majority (75.00%) were married. This aligns with the age bracket, as marriage is a common social expectation in adulthood, particularly in Nigerian society, where marriage is often viewed as a foundation for family and social stability. Marital status is also crucial in understanding gender dynamics, as married individuals may have additional responsibilities at home, which can influence their perspectives on gender roles in both the household and broader society. The dynamics of marital relationships often mirror the broader societal expectations of gender, making this group particularly important when analyzing gender relations in cooperative societies (Adamu and Mohammed, 2017).

The findings from this study are consistent with existing literature on gender dynamics in cooperative societies, particularly in the context of Nigeria. Several studies have highlighted the gender imbalances in cooperative membership and leadership, often reflecting societal norms that prioritize male participation in decision-making roles (Akinboye, 2019; Adamu and Mohammed, 2017). In particular, while women are often the backbone of rural economies, their participation in leadership roles within cooperatives is frequently marginalized.

Furthermore, the relationship between household size and cooperative participation is also well-documented. Large families often play a role in household-level economic activities, and this familial structure may influence attitudes toward gender roles within cooperative settings. Research by Omoniyi (2018) suggests that in Nigerian communities, collective labor within the household often translates into similar practices in cooperative societies, where gender roles are defined by traditional expectations of labor division.

In addition, education has been shown to have a significant impact on gender attitudes and involvement in cooperative governance. Studies by Kabbah et al. (2018) and Njoku (2016) emphasize that higher educational levels among cooperative members correlate with greater gender sensitivity and an increased willingness to challenge traditional power structures. Therefore, the moderate level of education among the respondents in this study is likely to foster more progressive views on gender equality in cooperative societies.

Lastly, marital status, as a significant sociocultural factor, is integral in understanding how gender dynamics are shaped. The role of marriage in reinforcing or challenging gender norms is well-established in Nigerian society (Oludayo *et al*., 2021). As most respondents in this study were married, their experiences in gender roles at home are likely to influence their perspectives on gender equity within cooperative settings, further shaping the dynamics of power and participation in these groups.

Table 1: Socioeconomic Characteristics of the Respondents (n = 332)

Variables	Frequency	Percentage
Sex		
Male	173	52.11
Female	159	47.89
Age (years)		
25 to 34	48	14.46
35 to 44	166	50.00
45 to 54	89	26.81
55 and above	29	8.73
Marital status		
Single	83	25.00
Married	249	75.00
Household size		
1 to 4	62	18.67
5 to 8	238	71.69
9 to 12	29	8.73
13 and above	3	0.90
Years of cooperative membership		
1 to 7	172	51.81
8 to 14	138	41.57
15 to 21	10	3.01
22 and above	12	3.61
Level of education		
Non formal	30	9.04
Primary	26	7.83
Secondary	205	61.75
Tertiary	71	21.39

Source: Field Survey (2024).

4.2 Women's Participation in Agricultural Cooperatives

The analysis of women's participation in agricultural cooperatives, as shown in Table 3, highlights both the significant contributions women make and the barriers they face in accessing leadership roles. A notable finding is that women are most commonly (32.83%) elected or assigned the role of treasurer, a position typically associated with financial management. However, women are rarely (4.52%) elected as chairpersons and only occasionally (10.54%) serve as vice chairpersons. This distribution of roles signals a gender imbalance, with women occupying support or secondary roles rather than leadership positions. This disparity underscores the persistence of gender-based

discrimination in the governance structures of agricultural cooperatives, where leadership positions remain predominantly male-dominated.

Despite this underrepresentation in leadership, the study reveals that women demonstrate high levels of commitment to the cooperative's activities. A significant majority (68.98%) of women attend meetings regularly, and more than half (58.43%) fulfill their financial obligations. Women's strong commitment to participation may stem from a variety of factors, including intrinsic qualities of dedication and responsibility, as well as a desire to challenge gender inequality. Their consistent involvement in meetings and financial matters highlights their active engagement in cooperative activities, despite their limited representation in leadership roles. This paradox—where women are deeply committed yet excluded from top leadership positions—reflects the broader gender dynamics at play, where women's contributions are valued in certain areas but not in decision-making roles (Akinboye, 2019).

The study further identifies cultural norms (53.31%) as the primary barrier to women's participation in leadership roles within agricultural cooperatives. These cultural norms, deeply rooted in Nigerian society, dictate traditional gender roles that often marginalize women from public and leadership spheres. In many Nigerian communities, women are expected to play secondary or supportive roles, and in extreme cases, they are excluded from public decision-making entirely. This cultural framework reinforces the view that leadership, particularly in public or male-dominated spaces such as cooperatives, is reserved for men. These gendered expectations limit the scope for women to step into positions of authority, despite their significant contributions to agricultural and community development (Oludayo *et al.,* 2021).

Similar findings have been documented in other studies on women's participation in

cooperatives across sub-Saharan Africa. For instance, studies by Kabbah et al. (2018) and Omoniyi (2018) indicate that, while women play an integral role in cooperative activities, they often face cultural and social obstacles that limit their leadership opportunities. In many African contexts, cultural beliefs and practices restrict women's autonomy in public life, thereby reinforcing gender inequality in organizational structures. These norms create an environment where women are often excluded from the leadership tables, even when they are active participants in the day-to-day operations of cooperatives.

It was observed that policy change (65.96%) is crucial to enhancing women's participation in leadership within cooperatives. This underscores the need for formal institutional support to address the gender gap in leadership positions. Policy interventions from both the government and other influential institutions—such as traditional and religious bodies—are essential for dismantling barriers to women's leadership. Such policies could include gender quotas, affirmative action measures, or the promotion of gender-sensitive training programs that equip both men and women with the tools to challenge traditional norms. By institutionalizing gender equality in leadership roles, these policies can create a more inclusive environment where women's leadership capabilities are recognized and encouraged.

Similar studies have highlighted the importance of institutional support in increasing women's representation in leadership roles. Research by Njoku (2016) and Hussain et al. (2020) demonstrates that in settings where governments or cooperatives themselves have implemented gender-focused policies, women's leadership participation tends to rise. For example, gender-sensitive policies in Uganda and Kenya have led to increased female representation in cooperatives' decision-making processes. This suggests that

when formal institutions take a proactive role in promoting gender equality, they can effectively shift societal perceptions and encourage women's leadership in agricultural cooperatives (Kabbah *et al.,* 2018).

The findings from this study resonate with broader literature on women's participation in cooperative governance, particularly in rural settings across Africa. While women contribute significantly to agricultural production and community development, they remain largely excluded from leadership roles due to entrenched cultural and gender biases. The pattern of women being assigned supportive roles (like treasurer) while men dominate leadership positions is not unique to this study. Similar findings are reported by studies in other parts of Africa, where women often face barriers such as gender norms, lack of access to education and training, and limited social capital that hinder their ability to take on leadership roles (Oludayo *et al.,* 2021; Adamu and Mohammed, 2017).

The study's emphasis on the importance of policy change aligns with a growing body of research that calls for structural reforms to improve gender equality in leadership positions within cooperatives. As noted by Njoku (2016), women's limited access to leadership roles in cooperatives is not due to a lack of ability but rather due to systemic and cultural barriers that need to be addressed through targeted policy interventions. This is further supported by Kabbah et al. (2018), who argue that institutional frameworks must be designed to actively promote female leadership in cooperatives, whether through quotas, mentorship programs, or community-based initiatives.

Moreover, the findings suggest that women's strong participation in meetings and fulfilling their financial commitments might be indicative of a desire to challenge existing gender norms and claim their rightful space within these organizations. This idea is echoed in the work of Omoniyi (2018), who observed that women in agricultural

cooperatives often view their participation as an opportunity to assert their agency in a traditionally male-dominated space. However, without systemic changes, their efforts are unlikely to lead to significant shifts in leadership representation.

Table 2: Women's Participation in Agricultural Cooperatives (n = 332)

Participation indicators	Frequency	Percentage
Women in cooperative leadership		
Chairperson	15	4.52
Committee member	63	18.98
None	90	27.11
Secretary	20	6.02
Treasurer	109	32.83
Vice Chairperson	35	10.54
Level of women commitment to meeting		
Low	103	31.02
High	229	68.98
Level of women financial commitment		
Low	138	41.57
High	194	58.43
Level of women's participation in leadership		
Low	212	63.86
High	120	36.14
Barriers to women in leadership		
Cultural norms	177	53.31
Inadequate support	114	34.34
Lack of confidence	41	12.35
Strategy for enhancing women participation in leadership		
Increased awareness	33	9.94
Leadership training	38	11.45
Membership programs	42	12.65
Policy change	219	65.96

Source: Field Survey (2024).

4.3 Effects of Socioeconomic Characteristics on Women's Participation in Leadership

In Table 3, the results of the logistic regression show that the loglikelihood ratio (211.64) was statistically significant ($p<0.01$). Hence, the null hypothesis was rejected in favour of the alternative hypothesis. Thus, socioeconomic characteristics of respondents have significant effect on the probability of participation in leadership by women. The results also show that the coefficient of determination was 0.4629, implying that the

independent variables in the model accounted for 46.29% of the variations in the probability of women's participation in leadership.

The z-statistic (6.57) of age was found to be statistically significant ($p<0.01$). Thus, increase in the age of women by one percent would increase the probability of women's participation in leadership by 1.21 units. As women advance in age, they also grow in wisdom and men accord them more respect as they actually become more responsible. This result suggests that older women are found in leadership positions in cooperative societies than the younger women.

The z-statistic (-4.08) of marital status was statistically significant ($p<0.01$). Thus, women who are married tend to have increased probability of participation in leadership. The African tradition views married women as more responsible and reliable. This status confers emotional stability on women. Married women also the experience of managing their homes, hence they can be entrusted with leadership position.

The z-statistic (6.04) of years of schooling was statistically significant ($p<0.01$). Thus, increase in years of schooling increases the probability of women's participation in leadership. Education is a great asset and an important condition for attaining leadership positions in cooperative societies. With higher levels of education, women acquire more abilities to manage the affairs of cooperative societies.

The z-statistic (6.66) of years of cooperative society membership was statistically significant ($p<0.01$). Thus, longer women stay in the cooperative society, the higher their probability of participation in leadership. The length of time of membership enables women to understand the needs and attitude of members of the cooperative society. Also, years of cooperative society membership help women to appreciate the challenges and demand of leadership.

Table 3: Effect of Socioeconomic Characteristics on Women's Participation in Leadership

Variables	Odds Ratio	Std. Err.	z	P>|z|
Constant	2.17E-05	3.34E-05	-6.96***	0.001
Age	1.208555	0.034822	6.57***	0.001
Marital status	-0.228241	0.08272	-4.08***	0.001
Household size	1.077406	0.100364	0.80	0.423
Years of schooling	1.303499	0.057202	6.04***	0.001
Farming experience	-0.952855	0.03649	-1.26	0.207
Years of cooperative society membership	1.410758	0.072882	6.66***	0.001

LR chi2(6) = 211.64***; Prob > chi2 = 0.0000; Log likelihood =-122.76; Pseudo R2 = 0.4629

5.0 Conclusion and Recommendations

Although women held some positions in cooperative societies, such as the treasurer, their overall involvement in decision-making and leadership was limited. This was largely attributed to sociocultural norms. It was recommended that policies aimed at improving the participation of women in the leadership of agricultural cooperative societies should emphasize age, formal education, and duration of membership.

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