INFLUENCE OF SOCIO-ECONOMIC FACTORS AND CONSTRAINTS TO LIVESTOCK COOPERATIVE WOMEN FARMERS IN OBAFEMI OWODE LOCAL GOVERNMENT AREA, OGUN STATE, NIGERIA

[1]SHITTU Kazeem Adesina (Phd), [2]JIMOH Bashiru Oladayo, [3]BOLARINWA Oluwaseun Kazeem (Phd) &[4]ADEBOWALE Sarah Adenike

[1]Department of Cooperative Economics and Management, Nnamdi Azikiwe Awka, Anambra State, NIgeria

[2]Department of Cooperative Economics and Management, Federal Polytechnics Ekowe, Bayelsa State, Nigeria

[3&4]Department of Cooperative and Rural Development, Olabisi Onabanjo University, Ago-Iwoye Ogun-State, Nigeria

Corresponding Author: Shittu, Kazeem. A., +2348074359460;

email address: shittuadesina81@gmail.com, ORCID ID: 0009-0003-6381-8926

ABSTRACT

The study examined the influence of socio-economic factors affecting livestock cooperative women farmers in Obafemi-Owode Local Government Area Ogun-State, Nigeria. A multi-stage sampling technique was employed to select a sample size of one hundred (100) respondents through the use of structured questionnaire. Descriptive statistics result showed that majority (50.0%) of the respondents source of finance was obtained from personal savings to set up their business. 50.0% of the respondents also agreed that they benefited from cooperatives through loan facilities. Regression analysis further indicated that household size, education, farming experience, marital status, access to loan, membership of cooperative and income were significant variables of socio-economic factors determines livestock production and profitability. To alleviate constrains encountered by livestock women farmers' production in order to increase farmers' income and enhance farm profitability, all the challenges facing livestock women farmers should be addressed properly. The study therefore recommended that government and agricultural development agencies intensify training and extension programmes to improve female farmer's technical knowledge. Access to affordable inputs, improved seed varieties, and credit facilities should be expanded through cooperatives, government and nongovernmental organizations to further enhance livestock farm profitability. **Keywords**: Cooperative, Farmers, Livestock, Constraints, Socio-economic, Women

Introduction

The agricultural and food production sectors are fundamental to global sustenance, economic development, and poverty reduction. Globally, women constitute a significant share of the

agricultural workforce and are central to the functioning of agrifood systems. According to the Food and Agriculture Organization (FAO, 2023), as of 2019, 36 per cent of working women were employed in agrifood systems. This proportion is even more pronounced in regions such as sub-Saharan Africa, where it rises to 66 per cent, and Southern Asia, where it reaches 71 per cent. Women participate at multiple points along the value chain as producers, wage workers, processors, distributors, traders, consumers and their labour is essential to both economic production and household nutritional security. Notably, smallholder farmers are the backbone of global food systems, producing nearly onethird of the world's food (FAO, 2023), and the majority of these smallholders are women. In many developing contexts, rural women cultivate food crops, manage livestock, and oversee post-harvest activities while also fulfilling unpaid domestic responsibilities. Their dual roles place them at the heart of both food production and family well-being. Despite their indispensable contributions, women remain systematically marginalized within agricultural systems. They face widespread barriers such as restricted access to land, credit, extension services, agricultural inputs, training, and markets (UN Women, 2022; Aguilar *et, al.,* 2023). Legal and cultural norms often favour male ownership of land and assets, while discriminatory institutional practices further entrench gender inequality. Women's limited participation in policy and decision-making spaces exacerbates their exclusion from programmes designed to support agricultural development. As the FAO (2023) argues, the persistence of gender inequality in agrifood systems is not merely a human rights issue but a critical development challenge. Closing gender gaps in agriculture would significantly improve productivity, enhance food security, and contribute to poverty reduction. In economic terms, it is estimated that eliminating gender-based barriers in agrifood systems could increase global GDP by 1 per cent (approximately US$1 trillion) and reduce the number of food-insecure people by 45 million (FAO, 2023). Globally, women play a role in agricultural and food production, constituting nearly 43% of the agricultural labour force in developing countries (FAO, 2021). Despite this significant contribution, gender disparities in access to land, credit, education, extension services, and decision-making continue to undermine women's productivity and limit their full participation in agricultural development. These inequalities have contributed to persistent food insecurity and rural poverty, prompting calls for more inclusive agricultural systems worldwide (UN Women, 2022). In Sub-Saharan Africa, women contribute between 60–80% of labour in food production, yet they face structural constraints rooted in patriarchal norms and institutional exclusion (UN Women, 2022). Limited access to productive resources and support services hampers their capacity to move beyond subsistence farming and participate meaningfully in value chains (Aguilar *et, al.,* 2023). These barriers are particularly pronounced in rural communities, where cultural and legal frameworks further entrench gender-based marginalization in agriculture.In Nigeria, women's involvement in agriculture remains largely informal and unrecognized, despite their indispensable role in ensuring household and national food security. Particularly in northern states like Kastina, socio-economic challenges such as poverty, low literacy levels, and restricted access to resources continue to hinder women's agricultural potential (Akinola & Yusuf, 2023). Livestock and crop farming are the major sources of income and food production in Nigeria (Zewdu *et, al.,* 2018). Recognizing women cooperative societies seem to be the

"quickest way innovations could get individual farmers and it is the surest way of increasing food that is available to the masses (Fayese *et, al.,* 2019). The issue of women's entrepreneurial

participation in cooperative organizations in Nigeria, and its impact on their livelihoods has therefore at best received peripheral attention. Women entrepreneurship refers to women's participation in initiating, owning, and managing businesses. It plays a critical role in reducing poverty, promoting gender equality, and improving household livelihoods. In Nigeria, women entrepreneurs are heavily involved in informal and micro-enterprises, particularly in trade, food processing, agriculture, and services (Adeyeye, 2017). Most of the world's poor people live in the rural areas and earn their living from agriculture, and agriculture remains the major source of income and employment in rural areas and the majority of cooperatives are found in the agricultural sector. The cooperative form of enterprises which aggregates people's resources and capital into economic units, provides the rural population an option to organize and improve their livelihood by providing income and creating jobs. Cooperatives are globally known to be of great importance in society, which have resulted in the upliftments of their members' economic conditions. The cooperative form of enterprise is flexible so it can respond to the needs of its members. There is no doubt that there is global campaigns for poverty reduction sounding across the world, especially in the least developed economies. Agriculture is the mainstay of the least developed economies, underpinning their food security, export earnings, and rural development (FAO 2022). Agriculture is the main source of employment and income in developing countries, where majority of the worlds' poor and hungry people live (FAO, 2023). It is an industry of major proportions and has always plays important role in the economic history of any country. Its activities are often constituted and carried out in groups, like cooperatives. Agricultural facilitation of optimal production. This includes joint purchase of farm inputs like seedlings, farm machinery, aiding members morally and financially, during cultivations seek marketing channels for farm products to ensure better and fair prices (Msimango & Oladele, 2023). It could also mean a unit of business organizations charged with the responsibility of meeting welfare needs of members in particular and society in general. Agricultural cooperatives hold much potential to enable economically weak farmers to increase their collective bargaining power, enhance income, provide inputs, and create market opportunities. Agriculture contributes significantly to the Gross Domestic Product (GDP). NBS (2023) agriculture contributed 21.66% to real GDP in first quarters of 2023 and it is an important tool in the fight to alleviate poverty in the country. Agriculture does not only provide food for the increasing population, it is also a major source of employment, provides markets for the products of the industrial sector, generates foreign exchange earnings, and supplies adequate raw materials to the growing industrial sector (Eze *et, al.,* 2020). In light of the importance of agriculture to Nigeria, the importance and history of agricultural cooperative societies in the country is a long standings one. Cooperative societies are an effective community development avenue by their nature of operation, they improves economic self-reliance of their members and civil society. The importance of cooperative societies extends to the larger society for the fact that, they create local jobs, invest locally, emphasize on education and skill improve local management capacity, and reduce migration and concentration of capital. People come together in cooperative societies to pool their resources together to meet individual needs which they could not resolve by individuals limited financial capacity (Jeeva, 2019).

Research Questions

i. What are the socio-economic characteristics of the livestock cooperative women farmers? ii. What are the sources of finance to the respondents?

iii. What are benefits derived by livestock women from cooperatives?

iv. What are the socio-economic factors influencing cooperative livestock women farmers?

v. What are the problems facing cooperative livestock women farmers in the study area?

Objectives of the Study

The main objective of this study was to determine the socio-economic factors influencing cooperative women farmers' participation and constraints facing livestock production in Obafemi Owode Local Government Area of Ogun-State, Nigeria. While specific objectives were to: i. examine the socio-economic characteristics of the women farmers; ii. identify the sources of finance to the respondents; iii. identify the various benefits received from cooperative by livestock women: iv. determine the socio-economic factors influencing cooperative livestock women farmers; and

v. investigate the constraints associated with cooperative women's involvement in livestock production the study area.

Hypothesis test

The research hypothesis is stated as follows: Ho_1: There is no significant difference between farmers' livestock output before and after joining cooperatives.

Review of Related Literature

Globally, women face significant legal and customary restrictions that limit their economic opportunities. Over 2.7 billion women are legally restricted from having the same choice of jobs as men. In 2023, more than one-third of the 190 economies assessed (69 economies) had laws constraining women's decision to work. Discriminatory social norms, attitudes, and beliefs, alongside rigid gender roles, are identified as fundamental causes of gender inequalities, influencing behaviour, opportunities, and aspirations. A critical constraint is women's limited access to productive resources. Their access to essential assets and resources such as land, inputs (including improved seeds, fertilisers, and mechanised equipment), services (such as extension

and irrigation), finance, and digital technology consistently lags behind men's. For instance, women account for less than 40 per cent of owners or rights-bearers for agricultural land in 32 out of 49 countries with available data. In over 40 per cent of reporting countries, men's land ownership or secure tenure rights are twice that of women. Progress in closing gaps in women's access to irrigation and ownership of livestock has been notably slow over the past decade. Despite decades of advocacy, women in Nigeria and across Sub-Saharan Africa continue to face significant socio-economic and structural constraints in agricultural participation. These barriers limit their productivity, income, and empowerment, despite the fact that they constitute a substantial portion of the agricultural labour force. Saito and Weidemann (2019) earlier identified key constraints facing women in agriculture, including limited access to land, technology, credit, information, and markets. These constraints are compounded by low levels of awareness and inadequate inclusion in extension services. NCEMA (1991) echoed similar concerns, noting that land fragmentation, gendered inheritance laws, and cultural norms often restrict women to cultivating low-value food crops, while men dominate the more lucrative cash crop sectors. These early insights remain relevant, as recent studies continue to confirm the gendered segmentation of agricultural labour (FAO, 2020; UN Women, 2021). Today, formal barriers such as low education levels, lack of technical training, and discriminatory labour laws continue to hinder women's entry into high-productivity agricultural sectors. Adebayo *et, al.,* (2021) categorised these alongside informal barriers, including religious and cultural constraints, gender-based domestic responsibilities, and patriarchal attitudes within agricultural institutions. Women are often expected to contribute substantial labour, particularly in weeding, harvesting, and processing, yet receive disproportionately lower returns compared to their male counterparts (Mehra & Rojas, 2021; Nnadozie & Ibe, 2020). Further evidence reveals that land ownership remains a critical bottleneck. According to the World Bank (2019), less than 15% of women in Nigeria own land, largely due to customary land tenure systems that favour men. Without land titles, women are excluded from access to formal credit, further reducing their ability to invest in inputs or technology (Ogunlela & Mukhtar, 2019). Akinbamijo *et, al.,* (2022) similarly emphasiszed that inadequate extension services, lack of targeted training, and limited decision-making power reduce women's agricultural productivity. Compounding these issues is the gender digital divide. Adebayo *et, al.,* (2021) observe that many rural women lack access to mobile phones and digital platforms that disseminate critical market and climate information. In an era of climate change, women's inability to access weather forecasts, agronomic advisories, or pricing information places them at greater risk of crop failure and income loss. Culturally sanctioned patriarchal systems also reinforce stereotypes that view women as secondary economic actors, mostly confined to reproductive and subsistence roles (FAO, 2020). These stereotypes continue to influence national and regional policy frameworks, often rendering women invisible in official agricultural planning and resource allocation (Action Aid, 2020). Although Nigerian women are central to agricultural labour, they remain marginalized in terms of resource access, recognition, and policy support. These gendered constraints have not only entrenched rural poverty among women but have also hindered the broader goal of inclusive agricultural transformation. These disparities directly translate into significant productivity and wage gaps. Productivity on female-managed farms lags that of male-managed farms of the same size by 24 per cent. In wage employment within agriculture, women earn, on average, 18.4 per cent less than men, receiving only 82 cents for every dollar earned by men. This contributes to a broader global earnings gap

where women make 77 cents for every dollar men make. The burden of unpaid care work and resulting "time poverty" further exacerbates these challenges. Women globally spend 2.5 times as many hours a day on unpaid care and domestic work as men. This significant unpaid work burden, combined with the "motherhood penalty" mentioned previously, severely limits their time for productive agricultural activities, market engagement, and skill development.

Theoretical Framework

Liberal feminism, as one of the oldest and most recognized schools of feminist thought, began to take shape in the late 1700s as women started advocating for individual liberty. It emerged distinct from more radical feminist branches, focusing on reformist approaches within the existing liberal democratic framework, rather than demanding a complete societal overhaul. Its roots lie in 19th century first-wave feminism, which sought recognition of women as equal citizens, with a particular emphasis on women's suffrage and access to education. Early liberal feminists, such as Mary Wollstonecraft, Frances Wright, and Judith Sargent Murray, drew parallels between sex discrimination and race discrimination, advocating for women's political inclusion and equal rights under the law. John Stuart Mill, one of the first men interpreted as a liberal feminist, argued in "The Subjection of Women" that without equal rights, women could not be sufficient in marriages, society, or academia. The movement's infrastructure was designed to be adaptable as women gained political and personal autonomy, making it one of the most enduring forms of feminism. The intellectual lineage of liberal feminism includes a diverse array of influential thinkers and activists. Historically, prominent figures include Mary Wollstonecraft, whose "A Vindication of the Rights of Woman" (1792) is considered a foundational text. Elizabeth Cady Stanton and John Stuart Mill are also central to its origins. Later, Betty Friedan, author of "The Feminine Mystique," became a significant proponent. In contemporary times, notable liberal feminists continue to advocate for equal rights, including figures like Kamala Harris and Sheryl Sandberg. These proponents consistently champion legal and political reforms to ensure women's equal participation in society. Liberal feminism operates on several core assumptions. Firstly, it posits that gender inequality is primarily a result of reduced access for women and girls to civil rights and social resources such as education and employment. It believes that women should possess the same rights and opportunities as men, including access to education, employment, and political participation. Secondly, it rejects the notion that women are inherently inferior or less capable than men, arguing that such stereotypes and biases must be challenged and eliminated. Thirdly, liberal feminists believe that gender equality can be achieved through legal and political reforms within the existing social system, rather than requiring a revolutionary overhaul. They advocate for laws and regulations that promote gender equality and prohibit discriminatory practices against women. This approach emphasizes individual rights, equal opportunities, and the belief in society's capacity for reform. Applying Liberal Feminist Theory to this study on socio-economic factors influencing cooperative women farmers' participation and constraints facing in livestock production in Owode Local Government Area of Ogun-State, Nigeria is highly relevant. The theory's focus on equal access to opportunities and the removal of structural barriers directly aligns with the study's objectives: to assess the socioeconomic characteristics of women participants and investigate the constraints they face. Liberal feminism helps to frame these disparities not as inherent differences, but as consequences of unequal access to resources and opportunities. This theoretical lens therefore guides the investigation into how

legal, political, and social reforms can enhance women's participation and address the inequalities inherent in agricultural systems.

Empirical Review

Viashima & Daniel (2025) examined the socio-economic characteristics and constraints affecting women's participation in agricultural and food production in Dutsinma Local Government Area (LGA) of Katsina State, Nigeria. Anchored on the Liberal Feminist Theory, which advocates for equal access to opportunities and the removal of structural barriers limiting women's agency, the study seeks to illuminate the roles, challenges, and socio-economic contexts of female agricultural participants. A mixed-methods approach combining quantitative and qualitative methodologies was adopted. Data were collected from a sample of 110 women selected through stratified and purposive sampling techniques. Structured questionnaires, in-depth interviews, and focus group discussions were employed to gather comprehensive data. Findings revealed that most women involved in agriculture in Dutsinma are middle-aged, have limited formal education, and rely heavily on subsistence farming for livelihood. Despite their active participation, women face multiple constraints, including limited access to land, agricultural inputs, credit facilities, extension services, and market opportunities. Socio-cultural norms and gender-based discrimination further impede their productivity and decisionmaking power.

METHODOLOGY Areas of the Study

The study area is Obafemi Owode Local Government Area of Ogun-State, Nigeria. Obafemi Owode is a Local Government Area in Ogun State, Nigeria. Its headquarters are in the town of Owode at 6°57′N 3°30′E. It has an area of 1,410 km2 and a population of 228,851 at the 2006 census. The population was estimated to be 399,800 in 2022. Obafemi Owode Local Government is one of the Local Governments that came into existence through Edict No.9 of 1976, resulting from the 1976 Local Government reforms, prior to this period, the administration of the area was carried out by Oba Provincial Authority, Owode District Council and Obafemi District Council. Obafemi Owode Local Government has its headquarters at Owode Egba. Obafemi Owode Local Government shares common boundaries with the following Local and State Governments: North - Odeda Local Government and Oyo State, East Ekiti-State and Ikenne Local Government, South-Ifo Local Government and Lagos State. It is made up of about 1,204 towns and villages with a land mass of 104,787.07 hectares of largely agricultural land. Obafemi Owode Local Government is endowed with vast fertile land suitable for the cultivation of rice, kolanut, sugarcane, maize, cassava, tomatoes and a wide variety of vegetables. The Local Government is generally regarded as the land of OFADA rice. The major food crops of the area includes cassava, rice, cocoyam, plantain, maize and vegetable, while palm produced and cocoa form the major cash crops. The people are predominantly farmers, most of whom engage in farming of arable crops. There are also some who engage in livestock and fishing. In recent times, however, the people of the area engage in Quarry business, artisan works and handcrafts, such as dye making and pottery. The popular adire fabrics are also produced in some areas of the Local Government Area.

Methods and Materials of Data Collection

The data for the research was gathered from both primary and secondary sources. Primary data were acquired through the administration of structured questionnaires and oral interviews were utilized to capture pertinent information from the sampled respondents in the study area. Secondary data were sourced from published journal materials, online sources, academic texts, and other relevant publications. Both descriptive and inferential statistics were employed to analyzed the collected data. The data obtained was analyzed using descriptive statistics such as frequency distributioinvolveds, simple percentages, frequency counts to describe socio-economic characteristics of the respondents, identify sources of finance to the respondents, identify the various benefits received from cooperative by livestock women and identify constraints associated with livestock production among women cooperative farmers. Inferential statistics such as chi-square and linear regression was employed to determine socio-economic factors influencing livestock production among women cooperative farmers in the study area while Chi-square was used to test the significant difference between farmers' livestock output before and after joining cooperative.

Sampling Technique

Multi-stage sampling method was used in the selection of respondents for this study. The first stage involved purposive selection of Ogun-State because of prevalence production of livestock in the State. In the second stage one (1) Local Government Areas (LGA) was selected from the state out of twenty (20) Local Government Areas in the state namely: Owode Local Government Area. Third stage involved a random selection (5) communities/ towns. Fourth stage also involving selection of two (2) agricultural cooperatives from the selected LGA. In the final stage, ten (10) respondents were selected from each towns giving a total sample of one hundred (100) women cooperative farmers utilized as sample size for the study.

Analytical Technique

Objective four was analyzed with linear regression model.

Model specification

It is express implicitly as follows:

$$Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\beta_6X_6+\beta_7X_7+\beta_8X_8+\beta_9X_9+\beta_{10}X_{10}+\beta nXn + e_i \quad (6)$$

Where:

Y = Amount of farm output (grain crops/kg/₦)

X_1 = Age (years)

X_2 = Gender

X_3 = Membership of cooperative

X_4 = Access to loan (₦)

X_5 = Marital status

X_6 = Religion

X_7 = Farming experience (years)

X_8 = Household size (numbers)

$X_{9.}$ = Educational attainment

X_{10} = Income (*₦)*

β_0 = Intercept

β_1- β_8 = Parameter estimate e_i =

Stochastic variables or error

term

RESULTS AND DISCUSSIONS 3.1: Socio-economic Characteristics of the Respondents

Table 1 indicated the age of the respondents as follows. The highest percentage are those who fall within the age bracket of 31–40 which accounts for 41.7% of the total number of the respondents. They were followed by those less than or equal 30 representing 25.0%, next to those age bracket of 41-50 representing 20.8% of the respondents and the respondent between 51 and 60 years and above 60 years were accounted for 8.3% and 4.2% of the total number of the respondents respectively with an average of 36.5 years old. It is clearly evident from table 1 that there are younger and energetic people taking up the grain crops farming activities, and this is a good sign for the future of the farming in the study area. This justified the finding of Msimango & Oladele (2019). who claimed that the age bracket (35-55) is economically active age, very industrious and desirous for productivity-oriented opportunities. In term of marital status, the result of the study showed that vast majority (75.0%) of the respondents were married while only 25.0% of the respondents were single. This revealed that the majority (75.0%) of the respondents were married, have settled family and also have family responsibilities. The majority of the respondents being married could increase their farming operation, productive resources, productivity and profitability. The result is in support with Saini (2019) who asserted that married people engages most in income earning activities because they are highly concerned about their family and have responsibility to take care of the family. The findings revealed that the majority 39.2% of the respondents had between 4 and 6 persons as household size, 20.8% of the respondents had 3 or less, 23.3% of the farmers also had between 7 and 9 members as household size while 16.7% had 10-12 individuals as family members with an average of 5 persons per household. This showed that the sampled respondents maintain moderate household size. This finding supported FAO (2023) who asserted that a moderate household size could maintains a balance between production and consumption providing a leverage for profitable ventures. 12.5% of the cooperative farmers had spent less than 6 years in cooperatives and 26.7% of the sampled respondents had been in cooperatives between 6-10 years, 25.8% of the respondents had spent

11-15 years, and 25.0% had joined cooperatives between 16 and 20 years while 10.0% of the respondents had spent 20 years or more in cooperative societies. This indicated that majority (87.5%) of respondents belong to one or more cooperatives for so many years between 6 and 21 years or more. This result concurred with Ofuoku and Urang (2019) who asserted that 70-89% of cooperators had stayed in cooperatives up to 20 years ago or more. Evidence on the Table 1 revealed that 15.0% of the respondents had no formal education, followed by 45 respondents constituting 37.5% primary education, 41.7% of the respondents possessed secondary education while 5.8% received tertiary education. The evident on the Table 1 also shown that majority 85.0% of the cooperative farmers possessed formal education. This implied that majority of the respondents had capability to read and write easily. This finding support Shittu *et, al.,* (2025) who opined that farmers with higher education levels had ability to increase their business and income, effective and efficiently and also participate actively in cooperative activities.

Table 1: Distribution of Socio-economic Characteristics of the Respondents

Variable	Value	Frequency	Percentage	Cumulative frequency	Average
Age	≤ 30	30	25.0	25.0	
	31-40	50	41.7	66.7	
	41-50	25	20.8	87.5	
	51-60	10	8.3	95.8	
	Above 60	5	4.2	100.0	36.5 years
Marital status	Single	30	25.0	25.0	
	Married	90	75	100.0	
Household size	1-3	25	20.8	20.8	
	4-6	47	39.2	60.0	
	7-9	28	23.3	83.3	
	10-12	20	16.7	100.0	5 persons

Membership of cooperative	< 6	15	12.5	12.5	
	6-10	32	26.7	39.2	
	11-15	31	25.8	65.0	
	16-20	30	25.0	90.0	
	21 and Above	12	10.0	100.0	13 years
Educational level (years)	No formal education	18	15.0	15.0	
	Primary	45	37.5	52.5	
	Secondary	50	41.7	94.2	
	Tertiary	7	5.8	100.0	
Total		**120**	**100**		

Source: Field Survey, 2026

3.2: Source of Funds to Livestock Women *Cooperative Farmer*s in the Study Area

Capital is most important factor of production and is always needed for the purchase of farm produce or output. The sources of finance to livestock production is presented in the table below**.** Table 2, revealed that majority (50.0%) of the respondents declared that their main finance source obtained from personal savings, (20.0%) of the respondents acquired their capital from cooperative societies while non of the respondents source their financing from banks. (2.0%) of the respondents agreed that they borrowed money from friends and relatives to start their livestock farming business, while only (12.0%) of the respondents sourced their capital through combination of personal savings and cooperative societies. (10.0 %) of the respondents were able to got capital to finance their livestock enterprise through their head of the family (husbands), while only (5.0%) of the respondents were not able to give account on how they obtained their sources of finance. This findings revealed that majority of the respondents sourced their capital through personal savings. This finding showed that females livestock farmers sourced their capital from difference sources their finances to start-up their livestock venture , therefore funds should be made available to them because their enterprise requires large amounts of funds to finance their enterprise. This result is consistent with Eze *et, al.,* 2020. **Table 2: Distribution of the Respondents Based on Sources of Finances**

Source of funds		

	Frequency	Percentage (%)	Cummulative frequency
Personal Savings and Cooperative Societies	50	50.0	50.0
Banks	20	20.0	70.0
Friends and Relatives	0	0.0	70.0
Personal savings Cooperative societies	2	2.0	72.0
Husband	12	12.0	84.0
No response	10	10.0	94.0
Total	6	6.0	100.0
	100	**100.0**	

Source: Field Survey, 2026

3.3: Various Benefits Received from Cooperative by Livestock Women

The respondents benefited from cooperatives in various ways. These include loan, expand business, advisory services, acquire new farm skills, farm inputs and health services. The result revealed that that majority (50.0%) of the respondents were able to obtained loan from cooperatives, (13.0%) derived farm inputs as benefit from cooperatives, followed by (12.0%) of the respondents claimed the they were able to expand their business through cooperatives, (11.0%) of the livestock women cooperator benefited advisory services from their cooperative societies. Other benefits received from cooperatives by the respondents including acquiring of new farm skills and health services (9.0%) and (5.0%) respectively. This unveiled that cooperative livestock women farmers benefited from cooperatives in various ways that assist them to improve their livestock farming business and enhance their well-being.

Table 3: Distribution of the Respondents Based on Various Benefits Received from Cooperative

Various Benefit Derived from Cooperative Societies			Cummulative frequency
	Frequency	Percentage (%)	

Cooperatives assist to obtain loan	50	50.0	50.0
Cooperatives help to expand business	12	12.0	62.0
Cooperatives assist in term of advisory services	11	11.0	73.0
Cooperatives help to acquire new farm skills	9	9.0	82.0
Cooperatives assist to give farm inputs	13	13.0	95.0
Cooperatives provide health services	5	5.0	100.0
Total	**100.0**	**100.0**	

Source: Field Survey, 2026 Multiple response

3.4: Socio-economics Factors Influencing Livestock Women Cooperative Farmers' Production

The Linear regression analysis was employed to scrutinize the factors influence livestock cooperative farmers. Based on the F-value, t-statistic, R^2 and the theoretical expectations of the variables, the FStatistic of 75.363 validated the sustainability of the overall regression equation. The adjusted R^2 of the model was 0.696, showed that 69% of the factors influencing grain crops among agricultural cooperative farmers explained by the independent variables included in the equation. From the ten (10) independent variables that were considered, seven (7) were found to be statistically significant, namely: household size, education, farming experience, marital status, access to loan, membership of cooperative and income significant at 5%, 1%, 1%, 5%, 1% 5% and 1% respectively. Out of seven (7) significant variables, five (5) of the variables were positively significant, two (2) variables were negatively significant while only three (3) variables do not show any significant. Furthermore, Age, religion and gender were not statistically significant factors influencing livestock production. The positive correlation of education, farming experience, access to loan and membership of cooperative suggests a direct positive relationship with livestock's production, while the negative correlation of variables such as household size and income indicated a detrimental impact on or negative relationship with livestock production. The factors like household size and income and may be attributed to a high number of dependents in the family, low income and diversion of farm income for other purposes. However, the result disagrees with Njoku and Odii (2019) that a cooperator with large household sizes are more likely to as larger household sizes entail spending more of their income on financing consumption and other basic household requirements than using it on profitable busines. Educational level showed a significant positive relationship with livestock farmers'

production (P<0.01) indicating that higher educational attainment leads more productive, possibly due to better financial literacy and record-keeping skills. Furthermore, access to credit had significant effect on numbers or quantity of livestock to be produced (P<0.01). Access to credit is significant and positive, this implied that the more women livestock farmers have access to credit may increase productions due to sufficient capital. Without gain saying capital, help to acquire farm inputs and services, ultimately enhancing livestock farm's output or yield and profitability.

Table 4: Distribution of Socio-economic Factors Influencing Women Cooperative Farmers on their Livestock Production

Variable	Coefficient (B)	Std. Error	T-value
Contact term	25.829	2.571	10.297***
Household size	2.585	-1.286	-2.146**
Age	0.775	0.754	0.572
Educational level	2.767	0.819	2.535***
Farming experience	1.897	0.576	3.115***
Marital status	-1.715	-0.975	1.826**
Religion	1.164	0.921	1.101
Access to loan	1.225	0.533	2.556***
Membership of cooperative	1.718	0.961	1.692**
Gender	0.859	0.792	1.333
Income	1.345	0.676	-2.512***
R-square	0.679		
Adjusted R^2	0.696		
F-statistics	75.363***		
D_1	97		
D_2	3		

Source: Field Survey, 2026

3.5: Differences between the farmers' Livestock Output Before and After Joining Cooperative Society

The result on Table 4 revealed that t-cal> t-critical, implied that there is a significant difference between the farmers' livestock output produced by women cooperative farmers before and after joining the cooperative societies. Thus, output realized by farmers after joining cooperative is higher than output before being a cooperative member, by implication, farmers enjoy greater livestock output as a result of engaging or participating in the activities of cooperative societies in the study area. This finding is in agreement of Salihu *et, al.,* 2017.

Table 5: Distribution Differences Between the Farmers' Livestock Output Before and After Joining Cooperative Society

Variables	Mean	Differences (%)	T-Value
Output before joining cooperatives	76.886577		
Output after joining cooperatives	92.565688	4.3322212	t = 7.21364***
			T- critical = 1.0
Total		**100**	

Source: Field Survey, 2026

3.6: Challenges Faced by Women Cooperative Farmers on Livestock Production

Table 5 sought the views of the respondents on the various challenges faced by cooperative livestock farmers. An analysis of these challenges uncovered including lack of storage facilities, insufficient funds/ credit facilities, gender disparities access to land, high cost of livestock farm inputs, lack of effective extension services, marketing problem, lack of decisions making without involvement of their husbands and insurgency. The result showed that insufficient funds was identified as top problems faced by women livestock cooperators (98.0%) and ranked 1st, followed by gender disparities access to land (90.0%) ranked 2nd, restricted access to resources such as land continue to hinder women's agricultural potential. Closing gender gaps in agriculture would significantly improve productivity, enhance food security, and contribute to poverty reduction. Lack of effective extension services (85.0%) was ranked 3rd position. High cost of livestock farm inputs (82.0%) positioned 4th and marketing problems (80.0%) was ranked 5th among the identified problems facing women cooperative livestock farmers. The other impediments includes lack decisions making without involvement of their husbands (79.0%) and insugency (77.0%) were ranked 6th and 7th respectively while lack of storage facilities (60.0%) was ranked 8th which was the least challenge facing women cooperative livestock farmers in the study area. Insugency came up as a result of banditary and kidnapping activities which cause lack of security and treat to farmers' lives and their livestock. If gender equality, access to land by women, effective extension services for women farmers and every other challenges are properly address this will increase their livestock farming business, enhance their income and improve standard of living, family well-being and improve food security.

Table 6: Distribution of Challenges Facing Respondents on Production of Livestock

Constraints to Livestock Production	Yes		No		Rank
	Frequency	Percentage (%)	Frequency	Percentage (%)	
Lack of storage facilities	60	60.0	40	40.0	8th
Insufficient funds/ credit facilities	98	98.0	2	2.0	1st
Gender disparities on access to land High	90	90.0	10	10.0	2nd
cost of livestock farm inputs	82	82.0	18	18.0	4th
Lack of effective extension services	85	85.0	15	15.0	3rd
Marketing problem	80	80.0	20	20.0	5th
Lack of decisions making without involvement of their husbands	79	79.0	21	21.0	6th
Insurgency	77	77.0	23	23.0	7th

Source: Field Survey, 2026

CONCLUSION AND RECOMENDATIONS.

Based on results descriptive statistic showed that majority of the respondents were youthful, agile and energetic with an average age of 36.5 years old. The result also revealed that the majority (75.0%) of the respondents were married, have settled family and also had family responsibilities with formal education and average size of 5 persons per household. Descriptive statistics result showed that majority (50.0%) of the respondents source of finance was obtained from personal savings to set up their business. 50.0% of the respondents also agreed that they benefited from cooperatives through loan facilities. Out of seven (7) significant variables, five (5) of the variables were positively significant, two (2) variables were negatively significant while only three (3) variables displayed no significant. Regression analysis further indicated that household size, education, farming experience, marital status, access to loan, membership of cooperative and income were significant variables of socio-economic factors determines livestock production and profitability. To alleviate constrains encountered by livestock women farmers' production in order to increase farmers' income and enhance farm profitability, all the challenges facing livestock women farmers should be addressed properly. The study therefore recommended that government and agricultural development agencies intensify training and extension programmes to improve female farmer's technical knowledge. Additionally, access to affordable inputs, improved animal breeding varieties, and credit facilities should be expanded through cooperative societies, government and non-governmental organizations to further enhance livestock farm

profitability. Based on the findings, it is recommended that government and agricultural development agencies intensify training and extension programmes to improve farmers' technical knowledge. Additionally, access to affordable inputs, credit facilities among others should be expanded through cooperative societies, government and non-governmental organizations to further enhance farm profitability as well. Cooperative societies should provide credit facilities and ensure prompt disbursement of credits to cooperative farmers within the appropriate time to utilize effectively and efficiently.

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