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Research Article

PERCEPTION OF HOUSEHOLD HEADS ON THE PRACTICE VEGETABLE FARMING VIA HOME GARDENING IN OLUYOLE LGA OF OYO STATE

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Abstract

This study examined the perception of household heads toward the practice of vegetable farming through home gardening in Oluyole Local Government Area of Oyo State, Nigeria. Specifically, the study described the socio-economic characteristics of household heads, assessed their level of awareness of vegetable farming through home gardening, examined their perception toward the practice, and identified the constraints affecting vegetable production through home gardening. A two-stage sampling technique was employed to select 135 household heads for the study. Data were collected using a structured interview guide. Descriptive statistical tools including frequency counts, percentages, mean, and Weighted Mean Score (WMS) were used for data analysis, while Pearson Product Moment Correlation (PPMC) was used to test the relationship between selected socio-economic variables and respondents' perception. The findings revealed that the mean age of the respondents was 42 years. The majority (63.0%) were male and 61.5% were married. The respondents had an average household size of seven members and spent an average of 10 years in formal education. The results further showed that 51.9% of the respondents had an above-average level of awareness of vegetable farming through home gardening. Regarding perception, respondents indicated that vegetable farming through home gardening contributes to income generation (WMS = 3.87), promotes entrepreneurship development (WMS = 3.54), improves household food and nutritional security (WMS = 3.51), empowers women (WMS = 3.48), reduces soil erosion and enhances soil conservation (WMS = 3.42), and facilitates nutrient cycling (WMS = 3.42). The major constraints affecting vegetable production through home gardening included inadequate supply of seeds and planting materials (WMS = 2.34), insecurity and theft (WMS = 2.08), insufficient knowledge of home gardening practices (WMS = 2.08), and destruction of crops by animals (WMS = 2.07). The Pearson Product Moment Correlation analysis showed that age ($p = 0.321$), household size ($p = 0.625$), years of schooling ($p = 0.242$), annual income ($p = 0.714$), and farming experience ($p = 0.831$) were not significantly related to respondents' perception of vegetable farming through home gardening, while farm size showed a significant relationship ($p = 0.001$).The study therefore recommends that government and private institutions should facilitate improved access to essential inputs such as quality seeds, irrigation water, extension services, and training programmes to enhance household participation in vegetable farming through home gardening.

Keywords: Perception, Household heads, Vegetable farming, Home gardening.

INTRODUCTION

The economic landscape of Nigeria has been deeply affected by a combination of factors, including inflation, high unemployment rates, and food insecurity. The rapid increase in food prices, coupled with stagnant or decreasing income levels for many households, has exacerbated the challenges faced by Nigerian families, especially those in low-income groups. With the rising cost of living, particularly in urban and peri-urban areas, families are finding it increasingly difficult to meet their basic nutritional needs. In response to these challenges, many households are exploring alternative means to sustain their food supply and reduce their reliance on the volatile market (World Bank, 2020).One such solution is home gardening**,** specifically vegetable farming. Home gardening involves growing vegetables such as tomatoes, peppers, spinach, okra, and other edible crops in residential spaces like backyards, rooftops, and even balconies. This form of farming offers a unique opportunity for households to produce fresh and nutritious food, cut down on food expenditures, and enhance food security, all within the confines of their own homes. Given the simplicity of the practice, low-cost investment, and the immediate benefits it can bring in terms of fresh food production, vegetable farming through home gardening has become an attractive option for many households, especially in the face of the ongoing economic crisis (Okunmadewa & Adebayo, 2018; Nwajiuba, 2020). In Nigeria, while the importance of home gardening has been acknowledged, there are significant variations in the practice across different regions and household types. Household heads, who are primarily responsible for the economic well-being and food security of their families, may have differing perceptions about the benefits and challenges of engaging in home gardening. These perceptions play a critical role in the adoption and sustainability of vegetable farming at the household level (Fadimu & Alabi, 2018). Despite the growing interest in urban agriculture globally, particularly in response to food security concerns, there is limited empirical research on how Nigerian households perceive and engage with vegetable farming through home gardening. This gap in knowledge has hindered the ability of policymakers, agricultural extension services, and non-governmental organizations to effectively promote and support home gardening as a sustainable practice for enhancing household food security and alleviating economic hardship (FAO, 2019). Moreover, while some households may view home gardening as a viable means of supplementing household income or reducing food costs, others may face significant barriers that prevent them from fully embracing it. These barriers include factors such as limited space, inadequate access to water, lack of knowledge or skills in gardening, and socio-economic challenges that limit the resources available to

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invest in the practice. Furthermore, the level of awareness about the potential benefits of home gardening and its ability to ease the economic burden may be low, especially among those who are unaware of the various support systems available to facilitate such practices (Rogers, 2003). The importance of home gardening in the context of Nigeria's economic crisis cannot be overemphasized. As the country continues to battle inflation, a volatile food market, and high levels of poverty, the ability for households to grow their own food has the potential to not only provide immediate relief but also contribute to long-term food security. Understanding how household heads perceive and practice home gardening is, therefore, essential in order to create effective strategies and interventions that can foster the widespread adoption of this practice (Okunmadewa& Adebayo, 2018). This study, therefore, aims to examine the perception of household heads regarding the practice of vegetable farming through home gardening as a coping mechanism to ease the present economic crisis in Nigeria. By exploring their motivations, challenges, and socio-economic influences, the study seeks to provide valuable insights that could help improve policies and programs aimed at promoting vegetable farming as an essential tool for tackling food insecurity and economic hardship in Nigerian households. In view of the above, the study provides answers to the following research questions:

- What are the socio-economic characteristics of household heads in the study area?
- What is the level of awareness of household heads towards home gardening?
- What is the perception of household heads towards vegetable farming via home gardening?
- What are the constraints affecting vegetable production via home gardening?

Objectives of the study

- Describe the socio-economic characteristics of household heads towards home gardening in the study area.
- Investigate the level of awareness of household heads toward vegetable farming via home gardening.
- Examine the perception of household heads toward vegetable farming via home gardening.
- Identify the constraints affecting vegetable production via home gardening.

Hypothesis of the study

The hypothesis of the study was stated in null forms as follow;

HO_1: There is no significant relationship between selected socio economic characteristics and the perception of household heads towards vegetable farming via home gardening.

RESEARCH METHODOLOGY

The study was conducted in Oluyole Local Government Area, one of the eleven Local Government Areas that constitute the Ibadan metropolis in Oyo State, Nigeria. The local government is located in the south-western region of Nigeria, with its administrative headquarters at Idi-Ayunre. Oluyole Local Government Area is predominantly agrarian, with major agricultural activities including the production of cash crops such as cocoa, coffee, kola nut, and cashew, as well as arable crop cultivation and poultry farming.The local government shares boundaries with Ibadan South-West Local Government Area, Ibadan South-East Local Government Area, Ona-Ara Local Government Area, and Ido Local Government Area within the Ibadan metropolis. It also borders Ogun State through Egbeda Local Government Area–Obafemi, Odeda Local Government Area, and Ijebu North Local Government Area. The local government was established in 1976 and covers an estimated land area of approximately 4,000 km². According to the 2006 national population census conducted by the National Population Commission, the population of Oluyole Local Government Area was 202,725.

Sampling Procedure

A two-stage sampling technique was employed for the study.

Stage 1: Four major household associations operating within the study area were identified. These include Iwajowa I Association, Iwajowa II Association, Ifelodun Association, and Orisun Association. All four associations (100%) were purposively selected for the study due to their relevance to household-based agricultural activities.

Stage 2: The registered membership of the associations consisted of 52 members in Iwajowa I Association, 108 members in Iwajowa II Association, 83 members in Ifelodun Association, and 26 members in Orisun Association. From each association, 50% of the registered members were randomly selected, resulting in a total sample size of 135 household heads for the study.

RESULTS AND DISCUSSION

Socio economic characteristics of the respondents

Age: The distribution of respondents by age is presented in Table 1. The findings indicate that 45.2% of the respondents were between 31 and 40 years of age, while 34.0% were between 41 and 50 years. In addition, 4.9% were aged 30 years or below, and 17.6% were above 50 years. The mean age of the respondents was 42 years. This suggests that the majority of household heads in the study area are within their economically active age group, which may positively influence their capacity to engage in vegetable farming through home gardening.

Sex: The results in Table 1 further show that 63.0% of the respondents were male, while 37.0% were female. This indicates that household heads in the study area are predominantly male, reflecting the traditional household structure where men often assume the role of household head.

Marital status: The findings reveal that 61.5% of the respondents were married, 18.5% were single, 8.8% were divorced, and 6.7% were widowed. The high proportion of married respondents suggests that most household heads have family responsibilities, which may influence their participation in home gardening as a means of supporting household food supply and income.

Household size: The results show that 63.8% of the respondents had household sizes of 3–5 members, while 19.2% had more than five members, and 17.1% had two members or

fewer. The mean household size was seven members. This indicates that households in the study area are relatively large, which may provide additional labor for home gardening activities.

Years spent in school: Table 1 further indicates that 66.7% of the respondents had spent more than five years in formal education, 29.6% had between three and five years of schooling, while 3.7% had two years or less. The mean years of schooling was 10 years. This suggests that most respondents possess a moderate level of education, which may enhance their ability to adopt improved agricultural practices and innovations.

Farm size: The findings reveal that 50.4% of the respondents cultivated vegetable farms of two acres or less, 37.0% cultivated between three and five acres, while 12.5% had farm sizes greater than five acres. The results indicate that most respondents operate on relatively small farm holdings, suggesting that vegetable production in the study area is largely practiced on a small-scale basis.

Annual income: The results further show that 56.7% of the respondents earned ₦50,000 or less annually, while 10.9% earned between ₦50,001 and ₦70,000. In addition, 13.2% earned between ₦90,000 and ₦110,000, and 9.5% earned above ₦110,000 annually. The mean annual income was ₦48,000. This suggests that most respondents fall within the low-income category, which may influence their reliance on home gardening as a supplementary source of food and income.

Table 1. Distribution of the respondents according to their socio economic characteristics

Variables	Frequency	Percentage	Mean
Age			
≤30	4	4.9	42
31-40	61	45.2	
41-50	46	34.0	
>50	24	17.6	
Sex			
Male	85	63.0	
Female	50	37.0	
Marital Status			
Single	25	18.5	
Married	83	61.5	
Divorced	12	8.8	
Widowed	9	6.7	
Household Size			
≤2	23	17.1	7 Members
3-5	86	63.8	
>5	26	19.2	
Years Spent In School			
≤2	5	3.7	10years
3-5	40	29.6	
>5	90	66.7	
Years of Farming Experience			
≤2	3	52.6	2years
3-5	12	43.2	
6-10	23	3.6	
>10	1	0.7	
Farm Size (Acre)			
≤2	68	50.4	1acre
3-5	50	37.0	
>5	17	12.5	
Annual Income			
≤#50,000	67	56.7	#48,000
#50,001-#70,000	15	10.9	
70,001-90,000	12	8.8	
90.001-110,000	18	13.2	
>#110,000	13	9.5	
Total	135	100.00	

Source: Field Survey, 2025

Years of farming experience: The distribution of respondents according to years of farming experience shows that 52.6% had two years or less of farming experience, while 43.2% had between three and five years of experience. Only 0.7% of the respondents had more than 10 years of farming experience. The mean farming experience was two years. This indicates that many of the respondents are relatively new to vegetable farming, suggesting a growing interest in home gardening within the study area.

The level of awareness of household heads toward vegetable farming via home gardening

The results presented in Table 2 show the distribution of respondents according to their level of awareness of vegetable farming through home gardening. The findings indicate that 51.9% of the respondents were aware of vegetable farming through home gardening, while 46.7% reported that they were not aware of the practice. This suggests that a slightly higher proportion of the respondents had prior knowledge of vegetable farming through home gardening. The result implies that the practice is relatively known among household heads in the study area, although a considerable proportion of respondents still lack awareness, indicating the need for increased awareness and extension efforts to promote the practice.

Table 2. The level of awareness of household heads toward vegetable farming via home gardening

Variable	Aware	Not Aware
Are you aware of vegetable farming via home gardening.	70(51.9)	63(46.7)

Source: Field Survey, 2025

The perception of household heads toward vegetable farming via home gardening

The results presented in Table 3 show the perception of household heads toward vegetable farming through home gardening in the study area. Respondents' perceptions were measured using a five-point Likert scale comprising strongly agree, agree, undecided, disagree, and strongly disagree. The responses were analyzed using Weighted Mean Score (WMS) and ranked accordingly. The findings indicate that respondents generally held positive perceptions toward vegetable farming through home gardening. Among the perception statements, the view that vegetable farming contributes to income generation ranked first with a WMS of 3.87. This was followed by the perception that it promotes entrepreneurship development (WMS = 3.54), and that it improves household food and nutritional security (WMS = 3.51). Other notable perceptions included women empowerment (WMS = 3.48), reduction of soil erosion and enhancement of soil conservation (WMS = 3.42), and facilitation of nutrient cycling (WMS = 3.42). Furthermore, respondents perceived that home gardening improves household livelihoods (WMS = 3.36), conserves biodiversity and natural resources (WMS = 3.23), improves family health and human capacity (WMS = 3.21), and strengthens social ties and community relationships (WMS = 3.15). Additional benefits identified include the transfer of knowledge and skills related to home gardening across generations (WMS = 3.13) and the preservation of indigenous crop varieties (WMS = 3.05). Recreational benefits (WMS = 2.84) and environmental beautification (WMS = 2.67) were also recognized by respondents, although these ranked lower compared to the economic and nutritional benefits.

Table 3. The perception of household heads toward vegetable farming via home gardening

S/N	Variables	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	WMS	RANK
1	It contributes to income generation	57(42.2)	38(28.1)	23(17.0)	10(7.4)	7(5.2)	3.87	1st
2	It promotes entrepreneurship development	23(17.0)	54(40.0)	36(26.7)	18(13.3)	4(3.0)	3.54	2nd
3	It improves household food nutrition	39(28.9)	31(23.0)	29(21.5)	32(23.7)	4(3.0)	3.51	2nd
4	It empowers women	37(27.4)	33(24.4)	29(21.5)	30(22.2)	6(4.4)	3.48	3rd
5	It reduces soil erosion and enhance soil conservation	34(25.2)	30(22.2)	37(27.4)	28(20.7)	6(4.4)	3.42	4th
6	It enable nutrient cycling	23(17.0)	42(31.1)	44(32.6)	22(16.3)	4(3.0)	3.42	4th
7	It improves livelihood	35(25.9)	34(25.2)	22(16.3)	33(24.4)	11(8.1)	3.36	5th
8	It conserves biodiversity and natural resources	31(23.0)	29(21.5)	30(22.2)	31(23.0)	14(10.4)	3.23	6th
9	It improves family health and human capacity	25(18.5)	32(23.7)	34(25.2)	35(25.9)	9(6.7)	3.21	7th
10	It creates and reinforce social status and ties between communities	26(19.3)	31(23.0)	31(23.0)	32(23.7)	15(11.1)	3.15	8th
11	It transfers of knowledge and skill of home garden from one generation to the other.	26(19.3)	26(19.3)	34(25.2)	38(28.1)	11(8.1)	3.13	9th
12	It serves as valuable repository for preserving and transferring indigenous Crops	19(14.1)	31(23.0)	37(27.4)	34(25.2)	14(10.4)	3.05	10th
13	Recreation	20(14.8)	19(14.1)	33(24.4)	46(34.1)	17(12.6)	2.84	11th
14	Beatification of the environment	15(11.1)	21(15.6)	36(26.7)	31(23.0)	32(23.7)	2.67	12th

Source: Field Survey, 2025

Table 4. The constraints affecting vegetable production via home gardening

S/N	Variables	Very Severe	Severe	Not Severe	WMS	RANK
1	Inadequate supply of seeds and planting materials	68(50.4)	54(40.0)	13(9.7)	2.34	1st
2	Insecurity and theft	53(39.3)	43(31.9)	37(27.4)	2.08	2nd
3	Insufficient knowledge of home gardening	48(35.6)	52(33.5)	34(25.2)	2.08	2nd
4	Destruction by animals	48(35.6)	51(37.8)	34(25.2)	2.07	3rd
5	Inadequate finance	47(34.8)	51(37.8)	37(27.4)	2.07	3rd
6	Conflict with neighbours	49(36.3)	45(33.3)	41(30.4)	2.07	3rd
7	Inadequate labor of home gardening	43(31.9)	56(41.5)	36(26.7)	2.05	4th
8	Pest and diseases	47(34.8)	50(37.0)	37(27.4)	2.05	4th
9	Inadequate source of water	44(32.6)	51(37.8)	40(29.6)	2.02	5th
10	Poor soil fertility and soil erosion	31(23.0)	69(51.1)	35(25.9)	1.97	6th
11	Inadequate information on the benefits	45(33.3)	43(31.9)	46(34.1)	1.97	6th
12	Social and cultural barriers	42(31.1)	47(34.8)	45(33.3)	1.96	7th
13	Shortage of land	48(35.6)	32(23.7)	55(40.7)	1.94	8th
14	Access to market	36(26.7)	51(37.8)	44(32.6)	1.88	9th
15	High temperatures	28(20.7)	63(46.7)	44(32.6)	1.88	9th
16	Inadequate transportation	39(28.9)	51(37.8)	44(32.6)	1.74	10th

Source: Field Survey, 2025

Overall, the results suggest that respondents in the study area generally agree with the positive statements regarding vegetable farming through home gardening, particularly emphasizing its economic, nutritional, and environmental benefits.

The constraints affecting vegetable production via home gardening

The results presented in Table 4 reveal the constraints affecting vegetable production through home gardening in the study area. The variables were measured using a three-point rating scale comprising *very severe, severe,* and*not severe*. The responses were analyzed using Weighted Mean Score (WMS) and ranked accordingly. The findings indicate that the most severe constraint faced by respondents was the inadequate supply of seeds and planting materials, which ranked first with a WMS of 2.34. This was followed by insecurity and theft (WMS = 2.08), and insufficient knowledge of home gardening practices (WMS = 2.08). Other notable constraints identified include destruction of crops by animals (WMS = 2.07), inadequate finance (WMS = 2.07), and conflicts with neighbors (WMS = 2.07). In addition, respondents reported inadequate labor for home gardening activities (WMS = 2.05), pest and disease infestation (WMS = 2.05), and inadequate water supply (WMS = 2.02) as significant challenges affecting vegetable production.

Environmental and resource-related constraints such as poor soil fertility and soil erosion (WMS = 1.97), inadequate information on the benefits of home gardening (WMS = 1.97), and social and cultural barriers (WMS = 1.96) were also identified. Furthermore, shortage of land (WMS = 1.94), limited access to markets (WMS = 1.88), high temperature (WMS = 1.88), and inadequate transportation facilities (WMS = 1.74) were reported as additional factors constraining vegetable production through home gardening. Overall, the results indicate that the identified variables constitute important constraints affecting the effective practice of vegetable production through home gardening in the study area. Addressing these challenges is therefore essential to enhance the productivity and sustainability of home gardening among household heads.

Test of Hypotheses

Test of relationship using PPMC between selected socio economic characteristics of the respondents and the perception of household heads toward vegetable farming via home gardening

The relationship between selected socio-economic characteristics of respondents and their perception of vegetable farming through home gardening was examined using the Pearson Product Moment Correlation (PPMC), and the results

are presented in Table 5. The findings indicate that age (p = 0.321), household size (p = 0.625), years of schooling (p = 0.242), annual income (p = 0.714), and farming experience (p = 0.831) showed no statistically significant relationship with respondents' perception of vegetable farming through home gardening. This suggests that these socio-economic variables did not significantly influence how household heads perceived the practice of vegetable farming through home gardening in the study area. However, farm size (p = 0.001) showed a statistically significant relationship with respondents' perception of vegetable farming through home gardening. This implies that the size of land available to household heads may influence their perception of the practice. Based on these results, the null hypothesis stating that there is no significant relationship between selected socio-economic characteristics and the perception of household heads toward vegetable farming through home gardening is accepted for all variables except farm size, which showed a significant relationship.

Table 5. Test of relationship using PPMC between selected socio economic characteristics of the respondents and the perception of household heads toward vegetable farming via home gardening

Variable	t-value	p-value	Remarks
Age	0.086	0.321	NS
Household size	0.042	0.625	NS
Yeas spent in school	-0.101	0.242	NS
Annual income	0.032	0.714	NS
Farm size	0.274**	0.001	S
Farming experience	0.019	0.831	NS

Field survey, 2025, S – Significant, NS – Not significant

Test of relationship using Chi-square between selected socio economic characteristics of the respondents and the perception of household heads toward vegetable farming via home gardening

The results presented in Table 6 indicate a significant association between selected socio-economic characteristics and the perception of household heads toward vegetable farming through home gardening. Specifically, variables such as sex, marital status, farmland ownership, sources of finance, access to extension services, and membership in cooperative societies showed statistically significant associations with respondents' perception. This finding suggests that these socio-economic factors play an important role in shaping household heads' perceptions of vegetable farming through home gardening. In particular, access to productive resources, financial support, institutional services, and social networks may influence how household heads perceive the benefits and importance of practicing vegetable farming through home gardening in the study area.

Table 6. Test of relationship using Chi-square between selected socio economic characteristics of the respondents and the perception of household heads toward vegetable farming via home gardening

Variables	t-value	df	X^2	Remarks
Sex	78.933	2	0.0001	S
Marital status	270.637	6	0.0001	S
Sources of finance	130.370	4	0.0001	S
Access to extension service	192.815	4	0.0001	S
Farmland ownership	80.311	5	0.0001	S
Membership of cooperative societies	84.133	2	0.0001	S

Field survey, 2025, S – Significant

Conclusion and recommendations

Based on the findings of the study, it can be concluded that the majority of household heads in the study area were male (63.0%) and married (61.5%), with an average household size of seven members and an average of two years of experience in vegetable farming through home gardening. The results further indicated that slightly more than half of the respondents (51.9%) were aware of vegetable farming via home gardening, suggesting moderate familiarity with the practice. The study also revealed that household heads held positive perceptions regarding the benefits of vegetable farming through home gardening. Key perceived benefits included its contribution to income generation (WMS = 3.87), promotion of entrepreneurship development (WMS = 3.54), improvement of household food and nutritional security (WMS = 3.51), and enhancement of household livelihoods (WMS = 3.36). These findings underscore the economic and nutritional importance of home gardening as a livelihood strategy for household heads in the study area. Finally, several constraints were identified as limiting factors for vegetable production via home gardening. The most significant challenges included inadequate supply of seeds and planting materials (WMS = 2.34), destruction of crops by animals (WMS = 2.07), inadequate financial resources (WMS = 2.07), poor soil fertility and soil erosion (WMS = 1.97), and shortage of land (WMS = 1.94). Addressing these constraints through improved access to inputs, training, and support services would likely enhance the productivity and sustainability of home gardening in the study area. Based on these findings, the following recommendations were made:

- Improved Access to Inputs and Services: Both government and private institutions should ensure the availability of essential inputs, including quality seeds, irrigation water, and other planting materials. In addition, provision of extension services and adequate training facilities is necessary to equip household heads with the skills and knowledge required for effective home gardening.
- Post-Harvest Management and Storage: Given the perishable nature of vegetables and the high post-harvest losses resulting from inadequate storage, there is a need to develop central storage facilities accessible to farmers. Such facilities would help reduce post-harvest losses, stabilize market supply, and prevent price fluctuations, thereby improving farmers' income and profitability.
- Promotion of Cooperative Membership: Household heads engaged in vegetable farming should be encouraged to join cooperative organizations. Participation in cooperatives can enhance access to resources, facilitate collective marketing, and strengthen social networks, contributing to the achievement of sustainable development goals, particularly in food security and poverty reduction.

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