Socioeconomic Factors Influencing the Adoption of Leafy Vegetable Technologies for Increased Vegetable Production in Akwa Ibom State, Nigeria

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DOI: 10.56201/ijaes.v10.no6.2024.pg170.183

Abstract
This study investigated the socio-economic factors influencing the adoption of leafy vegetable technologies for increased vegetable production in Akwa Ibom State, Nigeria. Interview schedule was used to obtain information from 181 leafy vegetable farmers selected from 9 Local Government Areas using the multi-stage sampling procedure. The analysis was carried out with the use of frequencies, percentage, mean scores, standard deviation and multiple regression analysis. Analysis showed that the majority were female (51.4%), with age mean of 41 years, and 76.8% being married. Notably, 46.5% and 51.9% had tertiary and secondary education, respectively. Wild spinach-ukazi (92.8%) and water leaf (91.2%) were predominant crops. Organic fertilizer (compost) exhibited higher adoption (mean score = 3.95) than inorganic fertilizer (NPK) (Mean score = 3.22). Community-based sources of information such as fellow farmers and community leaders were prevalent. Regression analysis identified age, household size, and educational level as factors that influence technology adoption. The study concluded that socio-economic factors (age, household size and education) affect technology adoption. It was recommended that more channels of sources of information should be created not just community and government agencies but to encompass media in order to enlighten leafy vegetable technologies in the study area.

Keywords: *Socioeconomic Factors, Affecting, Adoption, Leafy Vegetable Technologies*

Introduction

Modern technology and innovation in agriculture is seen in farming, planting, harvesting, processing, packaging of crops fruits, cereal, root crops, vegetables (fruits and leafy), amongst others. According to Agbugba et al. (2011), tropical leafy vegetables are those vegetables that can grow in tropical soils with their natural habitat in the sub-Saharan Africa. Leafy vegetable farms are very common in the agricultural zones of Akwa Ibom State. Leafy vegetables are well adopted for their nutritional values, rich in vitamins, fibre and other essential minerals. A diet rich in vegetables can lower blood pressure, control the risk of obesity, reduce the risk of heart disease and digestive problems also; have a positive effect upon blood sugar (Slavin & Lloyd, 2012). Leafy vegetables most often, come from short-lived herbaceous plants such as; African spinach, bitter

leaf, eggplant leaf, fluted pumpkin, garden parsley, wild spinach, scent leaf, water leaf, wild letus, cabbage, etc. (Maseko et al,2018). Examples of some tropical leafy vegetables with their botanical, English and native names are: Fluted pumpkin (*Telfairia occidentalis)* commonly called in Ibibio/Efik, Water-leaf (*Talinum triagulare*) commonly called Mmomong ikong in Ibibio/Efik, Bitter-leaf (*Vernonia amygdalina*) called Etidot in Ibibio/Efik dialect, Wild spinach (*Gnetum africanum*) commonly called Ukazi, Afang in Ibibio/Efik dialect, among others.

The benefits of leafy vegetables include; profit making, food for the teaming population, employment, dietary needs, medicinal uses, income generation, animal feed amongst others. Indigenous leafy vegetables have been found to be as good as conventional vegetables to provide essential nutrients to sustain human health (Mungofa et al., 2018). Vegetables are common in the market and command affordable prices. Studies by Mungofa et al. (2018) revealed that some leafy vegetables can be fermented because fermentation can be a preferred to processing method inorderto preserve the nutritional component of leafy vegetable (Ifesan et al., 2014).

A variety of techniques including organic production methods are used to manage leafy vegetable crops. The types of leafy vegetable grown can depend on environmental conditions, market demands and preference. Some leafy vegetable crops have a limited growth range depending on temperatures, available water supply, pests, and other factors. Others may be cultivated in a wider range of conditions. Leafy vegetable farmers test the soil and assess their land to determine what kind of products they can grow that would be commercially viable. The key constraints to increasing productivity per farmer are mainly inadequate use of yield-enhancing technology as reflected by non-use of mechanization, inadequate use of agro-chemicals as well as inadequate investments in irrigation (Olukunle, 2016).

Most of the agricultural practices are done manually in Nigeria. According to Isife et al. (2009), rural people/farmers are endowed with traditional skills and knowledge but they are at the primitive levels which need to be improved upon to conform to modern skills and development technology. There is need for farmers to invest in modern farm tools and equipment, take advantage of the available credit facilities as modernization, above all, adopt intensive farming which requires application of fertilizer and organic manure (Mwangi et al., 2015). Leafy vegetable production technologies available to vegetable farmers includes; traction and power, soil conservation, planter, fertilizer and pest control, center pivot irrigation harvesting/post-harvest, hay making, amongst others. Agricultural machines have been designed practically for every stage of the agricultural process. Leafy vegetable farmers should be made to embrace modern agricultural production techniques to ease farming.

Other production constraints necessary to complement yield-increasing technologies to achieve the goal of poverty reduction and food security have been neglected (Ogundari & Bolarinwa, 2018). So many modern technologies have been introduced in leafy vegetables in a bid to enhance productivity and food security. Some of these technologies are faced with acceptability, cost of the technology, transformability, compatibility, complexity, age, educational level of the farmers, farm size and the financial level of the farmers. Based on the technological advances in agricultural

production, this study was designed to investigate the socio-economic factors influencing the adoption of technologies on leafy vegetable production in Akwa Ibom State.

Objective of the Study

The specific objectives of this study were to:

i. describe the socio-economic characteristics of leafy vegetable farmers in the study area;
ii. identify the kinds of leafy vegetables produced;
iii. identify the types of agricultural technologies on leafy vegetable production available to vegetable farmers; and
iv. determine sources of information to farmers in adoption of agricultural technologies on leafy vegetable production; and
v. ascertain socio-economic factors that influence the adoption of leafy vegetable technologies for increased vegetable production in the study area.

Methodology

The study was carried out in Akwa Ibom state; it is one of the 36 States in the Nigerian Federation. Its area formed part of Cross River state until 1987, when Akwa Ibom state was created with the inland city of Uyo been the state capital. Akwa Ibom State is a state in the South-South geopolitical zone of Nigeria, bordered on the east by Cross River State, on the west by Rivers State and Abia State, and on the south by the Atlantic Ocean. The state takes its name from the Qua Iboe River which bisects the state before flowing into the Bight of Bonny. The state lies between 4.9057° N and 7.8537° E. Akwa- Ibom State has 31 Local Government Areas which includes: Abak, Eastern Obolo, Eket, Esit Eket, Essien Udim, Etim Ekpo, Etinan, Ibeno, Ibesikpo Asutan, Ibiono Ibom, Ika, Ikono, Ikot Abasi, Ikot Ekpene, Ini, Itu, Mbo, Mkpat Enin, Nsit Atai, Nsit Ibom, Nsit Ubium, Obot Akara, Okobo, Onna, Oron, Oruk Anam, Udung Uko, Ukanafun, Uruan, Urue-Offong. Akwa Ibom people are farmers, craftsmen, and merchants. A majority of the rural populace engage in farming. Other traditional occupations of the people are fishing, trading, hunting, wood-carving, raffia works, blacksmithing, pottery, iron works, tailoring, and crafts creation. The population of the state stood at 5.451 million in 2016 (Akwa Ibom State Government**,** 2021).

The research design for this study was descriptive survey. The population of the study comprised of all male and female registered leafy vegetable farmers in Akwa Ibom State Ministry of Agriculture, Nigeria. There are 605 registered leafy vegetable farmers in Akwa Ibom State. The multistage sampling procedure was employed. First was the purposive selection of 3 LGAs that are synonymous with core vegetable farming from each agricultural zone. The second stage involved selection of 9 core vegetable farming communities from each of the selected LGAs and the third stage was the selection of vegetable farmers using the simple random sampling. A total of 181 vegetables farmers were used for the survey. The primary data source was gathered using interview schedule data instrument. The analysis was carried out with the use of descriptive statistics such as frequencies, percentage, mean scores and standard deviation. Multiple regression analysis was used in determining the relationship between socioeconomic characteristics of leafy vegetable farmers and the adoption of agricultural technologies for leafy vegetable production.

The four functional forms of regression model viz: linear, semi-log, double log and exponential was tested. The multiple regression model was presented as thus;

Y= a+b1X1+b1b2X2 + …..+ bnXn ………………………………………. 3.1

Where: Y-is the dependent variable; X-is the independent variable; a-is the intercept (the value of Y when X is zero), a constant; b-is the slope of the line or the coefficient.

The three functional forms of the multiple regression model are as follows:

Linear

X= bo +b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + …..bnXn + ei….. 3.2

Exponential-Log function

LnY= bo +b1X1+ b2X2 + b3X3 + b4X4 + b5X5 + …..bnXn + ei….. 3.4

Double log function

LnY= Lnbo +b1 Ln X1+ b2 Ln X2 + b3 Ln X3 + b4 Ln X4 + b5 Ln X5 +...bn Ln Xn + ei…,,3.5

Socio-economic characteristics of leafy vegetable farmers,

Where:Y= Impact of socialization

X_1 = Gender (Male=1, Female=2); X_2 = Age range in years; X_3 = Marital status (single=1, married=2, divorced=3, separated=4, widowed=5); X_4 = Local Government Areas (Etinan, Itu, Uruan, Abak, Essien, Obot, Onna, Mbo, Okobo; X_5 = Educational level (No education =1 Primary =2, Secondary =3, Tertiary=4); X_6 = Household size (persons); X_7 = Farming status (full time =1, part time =2,), X_8 = Monthly income (1-20,000=1, 21,000-40,000=2, 41,000-60,000=3, 61,000-80,000=4); X_9 = Contact with extension agents (Annually = 1, Bi-annually = 2, Monthly = 3, Fortnightly =4); Ei = error term

Results And Discussion

Socioeconomic Characteristics of Respondents

The socio-economic characteristic of the respondents is shown in table 1.

Table 1: Response on Socio-economic Characteristics of the Respondents

Variables	Freq (n=181)	(%)	Mean
Sex			
Male	88	48.6	
Female	93	51.4	
Age (Years)			
17 – 27	18	9.9	

28 – 38	52	28.7	
39 – 49	76	42.0	41yrs
50 - 60	29	16.0	
> 60	6	3.3	
Marital Status			
Single	20	11.0	
Married	139	76.8	
Separated/divorced	6	3.3	
Widowed/widower	16	8.8	
Level of Education			
Primary education	3	1.7	
Secondary education	94	51.9	
Tertiary education	84	46.4	
Household Size			
1-3	18	9.9	
4-6	5	2.8	
7-9	78	43.1	9 persons
10-12	64	35.4	
> 12	16	8.8	
Farming Status			
Full-time	60	33.1	
Part-time	121	66.9	
Monthly Income (N)			
< 21,000	11	6.1	
21.000-40,000	47	26.0	
41,000-60,000	48	26.5	
61,000-80,000	35	19.3	₦57.749
81,000-100,000	22	12.2	
> 100,000	18	9.9	
Extension Visit			
None (0)	5	2.9	
Fortnightly (24)	15	8.3	
Monthly (12)	23	12.7	
Bi-Annually (6)	60	33.1	5/year
Annually (1)	78	43.1	

Source: Field Survey (2021)

The result in table 1 shows that 48.6% were male and 51.4% were female, indicating a more involvement of women in leafy vegetable production than their male counterpart. This result agrees with Ndubueze-Ogaraku (2017) comparative study on fluted pumpkin production in the Niger Delta reported a majority of female respondents at 64.4%. These consistent trends emphasize

the significant role played by women in leafy vegetable cultivation. Respondents' age distribution reveals an average age of 41 years, with the majority (42.0%) falling within the 39 to 49 years bracket. This age-related responsiveness is a positive indicator for the success of technology adoption in the study area. This confirms the work of Emodi and Elenwa (2018) got and average age of 41.3 years among urban homestead vegetable farming in Anambra State. Regarding marital status, 76.8% of respondents were married, a factor with potential implications for labour supply dynamics, as family members may contribute to farm labour, thereby reducing labour costs. This finding agrees with Obinaju and Asa (2015) economic analysis of vegetable farming, where a majority (72.2%) of respondents were reported as married. In education, majority (51.9%) attained secondary education followed by 46.4% of respondents having tertiary. This suggests that respondents in the study area have the educational background necessary for adopting leafy vegetable production technology. Educational attainment is recognized as a key influencer in the adoption of farming technologies, making this finding significant for technology adoption initiatives agreeing with the observation of Elenwa and Okorie (2019) on the use of organic materials in vegetable production in Ngor Okpala Local Government Area of Imo State. Analysis of household size indicates an average mean of 9 persons, with 43.1% of respondents having household sizes ranging from 7 to 9 persons; indicating a larger household size which could serve as family labour for vegetable production. Family labour is a positive factor for successful arable crop production including vegetable cultivation in the study areas (Elenwa and Emodi, 2019). The majority (66.9%) of respondents are part-time farmers, engaging in other jobs as their primary sources of income, while 33.3% were full-time farmers. A average monthly income of ₦57.749 indicates that the farmers earn above the approved monthly wage of ₦30.000 in the country. These findings is contrary to the study in Yakurr Local Government Area, where farmers reported monthly incomes in the range of ₦ 71,000 to ₦90,000 (Effiong et al., 2021).

Kinds of Leafy Vegetables Cultivated in the study area

Table 2 provides a comprehensive overview of the types of leafy vegetables cultivated by the respondents in the study areas.

Table 2: Kinds of Leafy Vegetables Cultivated in in the study area

s/n	Leafy vegetables	Freq. (n=181)	%	Rank
1	African rosewood plant	38	21.0	5th
2	Bitter leaf *(Vernonia amygdalina)*	143	79.0	4th
3	Black pepper (*Piper nigrum)*	20	11.0	7th
4	Bushbuck	19	10.5	8th
5	Curry leaf (*Murraya koenigii*)	30	16.6	6th
6	Fluted pumpkin (*Telferia occidentalis)*	143	79.0	4th

7	Garden egg-leaf (*Solanum aethiopicum*)	20	11.0	7th
8	Green or African Spinach (*Amaranthus hybridus*)	19	10.5	8th
9	Scent leaf (*Ocimum gratissimum*)	153	84.5	3rd
10	Water-leaf (*Talinum triangulare*)	165	91.2	2nd
11	Wild spinach (*Gnetum africanum*)	168	92.8	1st

Field Survey (2023) **Multiple Response**

Table 2 shows valuable insights into the diversity and prevalence of leafy vegetable production. Notably, the predominant leafy vegetables available in the study area are Wild spinach commonly called ukazi with impressive percentages of 92.8%, water leaf (91.2%) as they ranked first and second position. This signifies the paramount role of Wild spinach (*Gnetum africanum*) and water leaf (Talinum triangula) which emerged as the leading leafy vegetables. These findings align with Aboh and Effiong (2019) study on the contribution of vegetable production to food security in Uruan Local Government Area of Akwa-Ibom State, where water leaf (Talinum triangular), Wild spinach (*Gnetum africanum*) and fluted pumpkin (Telferia occidentalis) took precedence. The findings also align with Elenwa et al. (2021) study on leafy vegetable consumption pattern amongst rural and urban households in Rivers State, Nigeria where water leaf (Talinum triangular), Wild spinach (*Gnetum africanum*) and fluted pumpkin (Telferia occidentalis) where consumed by all (100%) of the rural and urban household. Beyond these leafy vegetables, Scent leaf (84.5%), Bitter leaf (79.0%), fluted pumpkin(79.0%) and African rosewood plant (21.0%), were also available as they ranked third, fourth and fifth, respectively.

Types of Agricultural Technologies on Leafy Vegetable Production Available To Vegetable Farmers in the study area

Tablev3 shows the types of agricultural technologies on leafy vegetable production available to vegetable farmers in the study area.

Table 3: Types of Agricultural Technologies on Leafy Vegetable Production Available To Vegetable Farmers in the study area

S/n	Leafy vegetables	Freq. (n=181)	%	Rank
A	Fertilizer/organic manure application	168	92.8	1st

1	Inorganic fertilizer (NPK)	168	92.8	1st
2	Organic fertilizer (compost)	153	84.5	4th
B	Improved planting material (seed, stem/seedling)	168	92.8	1st
1	Fluted pumpkin	168	92.8	1st
2	Water-leaf	153	84.5	4th
3	Bitter leaf	149	78.4	3rd
4	Scent leaf	153	84.5	4th
C	Planting distance	165	91.2	2nd
1	Fluted pumpkin (90X90 cm)	165	91.2	2nd
2	Water-leaf (25X30 cm)	149	78.4	3rd
3	Bitter leaf (1X1.5 meter)	149	78.4	3rd
4	Scent leaf (33X33cm)	153	84.5	4th
D	Field preparation	168	92.8	1st
1	Sunken bed	30	16.6	5th
2	Check basin	168	92.8	1st
E	Pest/weed control	20	11.0	6th
1	Application of pesticides	19	10.5	7th
2	Application of herbicides	153	84.5	4th
F	Harvesting	165	91.2	2nd
1	Done in the morning/evening	153	84.5	4th
G	Preservation/Storage procedure	168	92.8	1st
1	Sorting out diseased and bruised produce	168	92.8	1st
2	Use of well-ventilated containers such as smooth basket	165	91.2	2nd
3	Storage in ambient temperature (Bunching – up method)	153	84.5	4th

Field Survey (2023). **Multiple Responses**

Table 3 shows the types of agricultural technologies on leafy vegetable production available to vegetable farmers in the study area. Notably, the predominant agricultural technologies on leafy vegetable was fertilizer/organic manure application using Inorganic fertilizer (NPK), improved planting material seedling on fluted pumpkin, field preparation using check basin method and preservation/storage procedure using sorting out diseased and bruised produce as they ranked 1st position. This was closely followed by planting distance for Fluted pumpkin (90X90 cm), harvesting and use of well-ventilated containers such as smooth basket as they ranked second position. Improved planting material seedling on fluted pumpkin Bitter leaf , planting distance for Water-leaf (25X30 cm), and planting distance for Bitter leaf (1X1.5 cm) ranked third position. Harvesting done in the morning/evening, preservation/storage procedure through storage in ambient temperature, pest/weed control through the application of herbicides, planting space of Scent leaf (33X33cm) and improved planting material (seed, stem/seedling) of scent leaf ranked fourth position. Preparation by Sunken bed ranked fifth, pest/weed control ranked sixth and pest/weed control by application of pesticides ranked seventh respectively. These findings align with Aboh and Effiong's (2019) study on the contribution of using improved seedlings in vegetable production to food security in Uruan Local Government Area of Akwa-Ibom State, where improved water leaf (Talinum triangular) and improved fluted pumpkin (Telferia occidentalis) seedlings took precedence.

Sources of Information on Agricultural Technologies in Leafy Vegetable Production in the study area

Table 4 presents the diverse channels through which leafy vegetable farmers in the study area get information on agricultural technologies.

Table 4: Sources of Information on Agricultural Technologies in Leafy Vegetable Production

S/n	Sources of information	Fre	%	Ranking
	Media			
1	Radio	122	67.4	2nd
2	Television	103	56.9	5th
3	Print material (newspaper. Magazine etc.)	102	56.4	5th
4	Internet	95	52.5	6th
	Government/ Government Agencies			
5	Ministry of Agriculture	109	60.2	4th
6	Agriculture Resource Information System Network	88	48.6	7th

7	Agricultural Development Programme (ADP)		107	59.1	4th
8	School-To-Land Authority		92	50.8	8th
9	Niger Delta Development Commission (NDDC)		88	48.6	9th
10	Nigerian Liquefied Natural Gas (NLNG)		57	31.5	14th
11	Nigeria National Petroleum Company (NNPC)		49	27.1	15th
	Community				
12	Fellow farmers		138	76.2	1st
13	Community leaders		121	66.9	3rd
14	Private Organisations				
15	Nigeria Agip Oil Company (NAOC)		63	34.8	12th
14	Shell Petroleum Development Company (SPDC).		62	34.3	13th
	International Organisation				
	FADAMA 1 and 11		90	49.7	10th
18	International Institute of Tropical Agriculture (IITA)		81	44.8	NA
19	World bank		87	48.1	10th
	Non-Governmental Organizations (NGOs).	5th	85	47.0	11th

Field Survey Data 2022, Multiple Responses

Table 4.5a shows the various sources through which leafy vegetable farmers get information on leafy vegetables innovations/technologies and modern practices in the study area. Entries revealed that majority of the farmers get information from fellow farmers (76.2%), radio (67.4%) and community leaders (66.4%) under community and media ranked first, second and third positions respectively, indicating that community plays a major role in the dissemination of information to rural populace in the rural areas. This is possible because friends and fellow farmers are people they see meet and interact with everyday either on their way to the stream, farm and market place. This finding is in collaboration with the study Elenwa and Okorie (2019) that identified that fellow farmers and friends as they ranked first in the sources of information to rural women into the use of organic materials in vegetable production in Ngor Okpala Local Government Area of Imo State. Other sources of information to leafy vegetable farmers are Agricultural Development Programme (ADP) (60.2%), Ministry of Agriculture and Natural Resource (60.2%) under government/ government agencies; television (56.2%), print material - newspaper. magazine (56.2%) and

internet (53.0%) under media as they ranked fourth, fifth and sixth positions respectively. There has always been the perspective that government/ government agencies do not disseminate information to farmers as this finding is contrary to the finding of Isife et al (2009) where ADP ranked last (sixth position) in the sources of information to farmers in Ikwerre Local Government area of Rivers State.

Socio-economic factors that influence the adoption of leafy vegetable technologies for increased vegetable production in the study area.

Table 5 presents the socio-economic factors that influence the adoption of leafy vegetable technologies for increased vegetable production in the study area.

Table 5 Summary of Multiple Regression analysis showing the influence of socioeconomic characteristics on the adoption of agricultural technologies in leafy vegetable production

	Linear			Semi-Log			Double -Log		
Variables	Coef	t-cal	sig. t	Coef	t-cal	sig. t	Coef	t-cal	sig. t
(Constant)	0.119	0.815	0.415	.045	1.419	0.157	0.038	1.131	0.259
Age	0.094	1.875	0.062	.018	1.665	0.097	0.021	0.677	0.497
Marital Status	-0.059	-1.334	0.183	-.015	-1.517	0.130	0-.031	-0.594	0.553
Household Size	0.161	3.788	0.000*	.045	4.834	0.000*	0.851	9.168	0.000*
Monthly Net Income	0.044	1.091	0.276	.014	1.559	0.120	0.237	5.090	0.000*
Educational Level	0.862	13.924	0.000*	.102	7.502	0.000*	0.015	0.283	0.777
R	0.874			0.770			0.781		
R^2	0.764			0.593			0.609		
F-cal	237.5			106.5			143.1		
Pv	0.000			0.000			0.000		

Dependent Variable; Adoption. Source: SPSS 25.0 output based on field survey (2023)

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e_i$$

$$\text{AD} = 0.119 + 0.094\text{Ag} - 0.059\text{MS} + 0.161\text{HS} + 0.004\text{MI} + 0.862\text{Ed}$$

t- values in bracket (0.815) (1.875) (-1.334) (3.788) (1.091) (13.862)

Out of the three functional forms (linear, semi-log, and double log model), the linear model had the highest level of coefficient of determination (R^2) and so was selected. The multiple correlation coefficient R is 0.874 and Coefficient of Determination (R^2) = 0.764; this shows that 76.4% of the variation in adoption is explained. The remaining 23.7% is explained by other variables not included in the model. The F-calculated of 237.5 had a corresponding significant/probability value of 0.000; the researcher, therefore, concludes that the model was useful. The coefficient of age is 0.094, the t-value is 1.875, and the p-value is 0.062. The p-value is above the significance level of 0.05, suggesting that age is not statistically significant in predicting the adoption of agricultural technologies. However, there is a positive correlation between age and adoption of agricultural

technologies. The implication of this positive correlation is that older farmers adopted more agricultural technologies. The coefficient of marital status is -0.059, the t-value is -1.334, and the p-value is 0.183. The p-value is above 0.05, indicating that marital status is not statistically significant. The marital status of the respondents therefore dos not significantly influence its decision to adopt agricultural technology in leafy vegetable production. The coefficient of household size is 0.161, the t-value is 3.788, and the p-value is 0.000. The low p-value suggests that household size is a statistically significant predictor of the adoption of agricultural technologies. Also, a positive association exists between household size and adoption of agricultural technologies, suggesting that farmers with more members in the household will likely adopt more agricultural technologies, and in order to increase production and provide for the large household size **(**Elenwa & Okorie, 2019). The coefficient of monthly net income is 0.044, indicating from the positive sign that as income increases, the tendency to increase the adoption of agricultural technology in leafy vegetable production will increase. However, the t-value is 1.091, and the p-value is 0.276 > 0.05 level of significance; suggesting that the monthly net income is not statistically significant in influencing the adoption of agricultural technology in leafy vegetable production. The coefficient of educational level is 0.862, the t-value is 13.924, and the p-value is 0.000. The very low p-value indicates that educational level is highly statistically significant in predicting the adoption of agricultural technologies (Ajuwa et al, 2024); there is a positive correlation between educational level and adoption of agricultural technologies suggesting that the higher the educational level, the higher the adoption of agricultural technologies. The regression analysis shows that age, household Size and educational level influences the adoption of agricultural technologies in leafy vegetable production while marital status and monthly net do not.

Conclusion And Recommendations

Leafy vegetable production is dominated by female in the study area. Educational level, age and household size positively affect the adoption of agricultural technologies in leafy vegetable production while marital status and monthly net income do not significantly influence the adoption of agricultural technologies in leafy vegetable production in the study area. Based on the findings, the following recommendations were recommended: relevant government and non-governmental organization, should ensure the availability of indigenous leafy vegetable stems such as scent leaf, curry leaf etc and educate the household on the ways to cultivate, preserve and consume indigenous leafy vegetable.

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