

Financing of Organic Farming Activities Among Vegetable Farmers in Onitsha Agricultural Zone Southeast Zone, Nigeria

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Abstract

The study investigated financing of organic farming among small scale vegetable farmers in Onitsha L.G.A of Anambra state, Nigeria. Data for the study was obtained through structured questionnaire. Multistage random sampling technique was used to select 80 respondents used for the study. The statistical tools including frequency counts, percentages, means, ranking and likert scale were deployed for data analysis. Majority 78% of the respondents were females, and 58% had above 11 years of farming experience, the mean annual income of the farmers was ₦ 76,400, 44% financed their enterprise through personal savings, majority 50% received between ₦ 30,000 - ₦ 50,000 loan, the most severe constraint to organic farming was poor output from agricultural investment, reinvestment of part of loan, unexpected expenditure at loan repayment period, lack of collateral. While constraints to credit demand include late disbursement of loan, high interest rate, lack of awareness of fund among others. The vegetable farmers in the area would be encouraged by the government and financial institutions through policies geared towards elimination of bottle necks, timely release of credit/loan, interest free loans/credit, involving the organic farmers in policy formulations that encourage the use of organic practices in agricultural productions.

Keywords

Environment, Conservation, Green Agriculture, Finance, Food Security Food Supply

1. Introduction

The state of the environment today has been a global concern, particularly the developing countries, where environmental degradation is a serious impediment to food security supply due to the pressure on the available arable land. Restoration of soil fertility for sustainable agricultural production is therefore necessary for environmental and economic development through the application of green agriculture as a farming system, would enhance good crop yields without harming the natural environment. This involves the maintenance with low carbon and resources efficient. Organic farming is a holistic production management system which enhances agro eco-system health. Organic agriculture has been proven to be the sure way to achieve green economy (Henri-ukoha, Orebiyi, Eze, and Ibekwe et al 2014). Organic agriculture is defined as holistic

production management whose primary goal is to optimize the wealth and productivity of life and people (FAO / WHO, 2011). This is based on sustainable ecosystem, safe food, good nutrition, animal welfare and social justice (IFOAM, 2002). Organic farming which is a form of agriculture that involve techniques such as green manure, intercropping, crop rotation, animal droppings, biological pest control and compost has grown rapidly in the past few decades especially in the industrialized nations. (Abdullahi Senchi and Garba, 2012). It is aimed at achieving an environmentally friendly alternative method for the natural recycling of organic matter to minimize nutrient losses and reduce accumulation of waste (Okpara, 2011). Organic farming excludes the use of manufactured fertilizer, pesticide, plant growth regulators like hormones, livestock antibiotics, food additives and

genetically modified organisms (Wikipedia, 2011). Organic farms withstand severe weather conditions better than conventional farms sometimes yielding 70-90% more than conventional farms during drought (Belsic, 2003) because supporters claim that organically managed soils has a higher quality and soil water retention. It can build up soil organic matter than conventional no-till farming which suggests long-term yield benefits from organic farming (Akpaeti, Aniekan, Udo and Basse, 2014). The rapid growth of organic sector is attributed to the increased consumer awareness about food safety issue and environmental concerns coupled with the attainment of higher level of food security by industrial world (I FOAM, 2002). Vegetable is frequently used to refer to leafy plants whose succulent stem portions, petioles and leaves are mainly cooked and eaten in soups and stews (Okuniola, 2009). Vegetables are among the major dietary intake in our everyday life. Vegetables in their flesh form contain high percentage (75% or more) of water and 25% or less dry matter (Ajayi and Nwalieji, 2010). Some roots and tubers are consumed as vegetable to improve the vitamin and mineral intake in the body (Okoli, 2009). Vegetables are of great nutritive value and are important source sources of vitamins, minerals, proteins, carbohydrates and dietary and dietary fibers, thus essential components of the human diet, it is often said that the nutritional security of a country can be achieved only when there is enough vegetables with special interest in green (*Amaranthus* spp), fluted pumpkin (*Telfairia* spp, okra) (*Abelmoschus* *esculentus*) and water leaf (*Talinum* *triangulare*) respectively. Vegetables are the most important and widely cultivated food and income generating crop in many parts of Africa. These are cultivated extensively by both small and medium scale enterprises because of inadequate financial resources and absence of timely credit facilities at reasonable rates. Most farmers are unable to go in for improved seeds and manure or to introduce better method or technique. Rural agricultural financial services are provided by formal and informal financial arrangements within the agricultural value chain. Organic farming has a number of problems that affect its wide spread use in crop production which include labour, land and capital constraints (Okpara, 2011). The major goal of organic farming activities is a sustainable production of quality food with little or no effect on the environment. In Nigeria very few farmers or projects claiming to be organic and even fewer operating a recognized form of certified organic agriculture (Harris, 2006). Organic fertilizers/manures add considerable quantities of organic matter to the soil and if farmers in the country will embrace the use of organic fertilizers/manure more than inorganic they will better their crop production and increase their income earning capacity. The failure rate of small and medium enterprises (SMES) including organic vegetable farmers are about 85% due to lack of access to capital, although other factors are important, the role of finance is central to the use of new technology, inadequate financing is a major constraints to adoption of improved technologies (F AO, 2011). It is against this back drop that this study was designed to analyze the

financing of organic farming among vegetable farmers in Onitsha agricultural zone of Anambra state, Nigeria.

2. Objectives of the Study

The broad objective of the study was to investigate financing of organic farming among vegetable farmers in Onitsha agricultural zone of Anambra state, Nigeria.

The specific objectives includes

- i. described socioeconomic characteristics of the farmers
- ii. identified sources of financing and amount of fund received
- iii. examined constraints to credit demand and financing organic farming, and to use result of the study to make recommendations on how best to improve and expand inorganic farming in Nigeria

3. Methodology

The study was conducted in Onitsha agricultural zone, Southeast Zone of Nigeria. The agricultural zone is made up of five local government areas (L.G.A): Onitsha, north, south L.G.A, Idemili North, South L.G.A and Ogbaru L.G.A, it is made up of six extension blocks comprising 30 circles. Onitsha agricultural zone have two main seasons, dry and rainy seasons. The annual rainfall is between 2000mm and 2500mm, while the mean annual temperature is between 26°C -28°C. The zone is richly endowed with fertile land and rivers suitable for growing vegetables like fluted pumpkin, okra, water leaf green etc. The zone was purposively chosen because of the existence of extensive vegetable farming among the farmers in the area and the use of organic fertilizer in their vegetable crop production. Multistage and simple random sampling technique was used to select respondents for the study. Stage 1 involves random selection of four rural blocks out of the six. Stages ii was the random selection of five circles from each block. Stages iii was random selection of four vegetable farmers. Stage iv was random selection of four block and 20 circles from each of the selected blocks circles to arrive at 80 respondents used for the study. A 3point likert scale was used to determine the seriousness of constraints to credit demand and financing of organic farming. The cut-off point was determined by $X = \frac{\sum f}{n} = \frac{3+2+1}{3} = \frac{6}{3} = 2.0$. The mean score was compared with the critical mean of 2.0

Data for the study were collected from both primary and secondary sources. Primary data were collected from interview schedule and well structured pretested questionnaire administered to the respondents. Primary data were collected on socioeconomic characteristics such as age, gender, household size, level of education, farming experience, farm size, annual income, type of labour used, sources of fund and amount of credit received. Data on socioeconomic characteristics of the farmers and constraints to credit demand and financing organic farming were analyzed using frequency counts, percentages and mean ranking.

4. Results and Discussions

Findings on socio economic characteristics of the vegetable farmers (Table 1) showed that majority 78% of them were females, implying that women play more active role in vegetable farming than males in the study area. This study corroborates Akimnagbe, Agwu and Igbokwe (2004); Adisa and Okanede, (2011), however it is at variance with Ugwumba (2011) who reported greater male involvement in catfish production in Anambra state, Nigeria.

Table 1. Distribution of respondents according to socioeco characteristics.

Variable	Frequency	Percentage	Mean
Age			
20-30	4	5	
31-40	12	15	
41-50	48	20	43.9
Gender			
Male	18	22.5	
Female	62	77.5	
Household size			
1-5	10	12.5	
6-10	42	52.5	
11-15	25	31.25	
16-20	3	3.75	
Educational qualification			
No formal education	8	10.0	
Primary education	42	52.5	
Secondary education	28	35.0	
Tertiary	2	2.5	
Farming experience			
1-5	6	7.5	
6-10	18	22.5	
11-15	46	57.5	
16 and above	10	12.5	11.4

Continuation of socioeconomic variables.

	Frequency	Percentage	Mean
Farm size			
0-2	78	97.5	
3-4	2	2.5	
4 and above	0	0	1.08
Annual income			
25,000-50,000	8	10.0	
51,000-75,000	27	33.75	
76,000-100,000	43	53.75	
101,000 and above	2	2.5	76,400
Types of labour used			
Family labour	25		
Hired labor	47		
Communal labour	8		
Sources of fund			
Personal savings	35	43.8	
Cooperative society	25	31.3	
Friends and relations	15	18.75	67,751
Banks	5	6.3	
Amount of loan received			
10,000-30,000	420		
30,001-50,000	20		
30,001-50,000	20	5.0	
50,001-70,000		25	67,751
70,001-100,000		251	

Result on socio economic factors also showed that most of the farmers (75%) fell within the active productive age range of 31-50 years. Okoli (2004) noted that age is considered as an important variable because it influences people's attitude, skill and aspiration. Majority 90% of the vegetable farmers are literate, this implied that higher educational level will facilitate the adoption of appropriate agricultural technologies and skills. This agrees with the Findings of Agbamu (2010), that level of education influences participation in agricultural productive activities, adoption, transfer and application of innovations and therefore enabled them earn more income. Majority 70% had above 11 years of farming experience. This implied that vegetable farmer with higher level of farming experience which is an indication of entrepreneurial skills acquired and the ability to diversify production enterprises, manage credit facilities more efficiently and generate more income (Abdulrahman, 2013). The findings on socio-economic characteristics also indicated that majority 98% had between 0-2 hectares of land. In his report Don-Breazeale (2011) noted that one hectare of land is the minimum area necessary to maintain family interest, make it economically important and to guarantee sufficient income for an average household. This implied that the organic farmers should be encouraged by provision of enough land to enhance increased productivity and income.

The result also showed that (88%) of the respondents earned annual income of between 51,000-100,000. This implied that more than half of the farmers who participated in vegetable farming earned enough income that put them above the poverty line. This finding is at variance with Adebayo and Amao (2003) who reported that 53%-70% of the farmers are living below poverty line, earning less than \$1.00 per day in Oyo state, Nigeria. Majority 75% accessed less than 75,000 of credit. This implied that the vegetable farmers in the area do not access enough finance to improve vegetable production and purchase inputs for increased productivity.

5. Constraints to Credit Demand and Financing Organic Farming

The respondents encountered some problems which hindered them from access to credit for increased vegetable production. These problems included late disbursement of loan, high interest rate, lack of awareness of fund, lack of collaterals, fear and uncertainty, while those of financing organic farming included poor output from agricultural investment, reinvestment of part of loan, unexpected expenditure at loan repayment period, lack of collateral and attitude towards loan repayment (national cake). Among these problems as shown in Table 2, late disbursement of loan with the highest mean score of 3.6 was implicated as the most serious constraint to credit demand. A similar report of late disbursement was given by Igwilo, (2012), to have constrained the adoption of improved technology by farmers in Anambra state, Nigeria. This was closely followed by high interest rates (3.4), lack of awareness of financial institution

(2.7), lack of collaterals (2.4), and fear of uncertainty (2.1). The most serious problem to financing organic farming was poor output from agricultural investment (3.4). This corroborates Amah (2011), that poor output from agricultural investments are among the major causes of default in repayment of loans by farmers in Anambra State, Nigeria. This was followed by reinvestment of part of loan (3.1), unexpected expenditure at loan repayment (2.5), lack of collateral (2.2) and attitude towards loan repayments (1.8).

Table 2. *distribution of respondents according to constraints to credit demand.*

Constraints	Mean	Rank
Late distribution of loan	3.6	1 st
High interest of rates	3.4	2 nd
Lack of awareness of financial	2.7	3 rd
Lack of collaterals	2.4	4 th
Fear and uncertainty	2.1	5 th

Source: Field survey 2014.

Constraints in financing organic farming

Constraints	Mean	Interpretation	Rank
Poor output from agric investment	3.4	Very serious	1 st
Reinvestment of part of loan	3.1	Very serious	2 nd
Unexpected expenditure at loan repayment period	2.5	Serious	3 rd
Lack of collateral	2.2	Serious	4 th
Attitude towards loan repayment (national cake)	1.8	Not serious	5 th

Source: Field survey 2014.

6. Conclusion

Most farmers in Onitsha agricultural zone in Southeast, Nigeria earned income just a little above the poverty line, because of the restrictions relating to credit and farmers exclusion in designs, planning and implementation and evaluation of agricultural development, credit policies, plans and programmes. The farmers should be involved in the planning and implementation of policies relating to credit in agriculture.

Recommendations

Based on the findings the following recommendations were made:

- i. State and local government should encourage the farmers by installing organic fertilizer plants to ensure that sufficient organic fertilizer will be available to small scale farmers at the rural levels
- ii. Creating awareness of organic farming methods to farmers by the State Ministry of Agriculture or Agricultural Development Project (ADP).
- iii. Farmers should form groups to enable them purchase inputs, acquire skills and sale their organic products in groups for better income
- iv. Government should create efficient organic markets
- v. Standardization of products according to organic farming rules and regulations

References

- [1] Abdullahi, AN., ID., Senchi and S., Garba 2012. Organic Agriculture and Farmers Market Policy Options and Strategies for Developing Agriculture. Nigerian Journal of Farm Management vol 13 no 1 pp 74.
- [2] Abdulrahman, SF. 2013 Expenditure on Agricultural Sector and Food Security in Nigeria. International Jjournal of Social Sciences Tomoorow, vol. 2(1) pp 1-6.
- [3] Adisa, BO, and EO, Okonade. 2011. Women in Agriculture and Rural Development in Madukwe M. C (eds) Agricultural Extension in Nigeria (2nd) edition AESON Publication, ARMTI, Ilorin, Nigeria pp 90-100.
- [4] Ajayi, AR and AH. nwalieji 2010. Impact of Anambra State Fadama Project Phase 1 on the Socio-economic life of the Rural Farmers. Journal of Human Ecology, 29(2): 129-139.
- [5] Akimnagbe, MO., A. E., Agwu, EM. Igbokwe, 2008. Agricultural Extension policy issues for Olowo, Igbokwe, Garfoth and Dube (eds) Dveloping Agricultural Extension Policy for Agriculture, Umudike, Nigeria 6-11 April pp 17-26.
- [6] Akpaeti, AT, Udo, UJ and Bassey, N. E. 2014. Boosting Agricultural Productivity through the Financing and Marketing of Green Economy in the Niger Delta of Nigeria. Programme of Events and Book of Abstracts. Association of Agricultural Economists (NAAE), Niger Delta University Wilber force Island Bayelsa State. Pp 58.
- [7] Amah, JT. 2011. An analysis of Farmers Access to Agricultural Credit and Repayment in Awka North local Government of Anambra State, Nigeria. An unpublished B.sc Project, Department of Agricultural Economics and Extension, Aanambra State, Igbariam.
- [8] Belsic, I. 2003. How to feed the world. The Christian Science Monitor.
- [9] FAO/WHO 2001. Guideline for Production, Processing, labeling and Marketing of Organically Produced Foods CAC/GL.3499. Rev. 2001 Rome.
- [10] Harris, PLC. 2006. Sustaining Organic Agricultural Projects in Nigeria. Proceedings of the 2nd National Conference on Organic Agriculture, University of Ibadan, Ibadan, Nigeria 27-29 November, 2006 pp.16.
- [11] Henri-ukoha, A, JS. Orebiyi, CC. Eze, UC. Ibekwe, IJ, Ihuegbulam and IJ. Oshaji. 2014. Gender involvement InOrganic Agriculture: APathway to Achieving Green Economy in Nigeria. Programme of Events and Book of Abstracts. Association of Agricultural Economists (NAAE), Niger Delta University Wilber force Island Bayelsa State Pp 71.
- [12] Ugwumba, COA, 2011. Technical efficiency and profitability of catfish production in Anambra state, Nigeria. Ph.D Dissertation. department of agricultural economics and extension, delta state university, Abaraka Nigeria
- [13] Okoli, IN. 2009. Basic Nutrition and diet therapy, university of Nigeria press, Nsukka, Enugu state.
- [14] Okoli, UA. 2004. Identification and training of homestead banana and plantain growers in Nsukka agricultural zone, Enugu state, Nigeria. M.sc thesis university of Nigeria, Nsukka, Nigeria.

- [15] Okpara, DA, 2011. Organic farming as a food of soil fertility maintenance option on the humid tropics globalization and rural development in Nigeria in Ike Nwachukwu and ken C. ekwe (eds). Esay in honour of prof. Ikenna Onyidofas vice chancellor Micheal Okpara University of Umudike 2006-2011 p 285 wikipedia. 2011. Organic farming http://en.Wikipedia.Org/wiki/organic_farming.
- [16] Okunola, Al.2009. Factors Associated with Fadama Production of Vegetables by Small Scale Farmers in Ondo State, Nigeria. Journal of Food. Agriculture and Environment. Vol. 7 (3 and 4): 551-555 (website: www.world-food.net retrieved 8 may 2009, accepted 25 September, 2009.