Evaluation of the Socio-Economic Factors Impeding Production of Cashew in Ogaji, North Central Nigeria

Uche Okoye[1], Success Esomchi Obi[2], Okeme Ukwumonu Patrick[3]

[1]Department of Social Sciences, National Institute of Construction Technology and Management, Nigeria
[2]Obicity Concept International, Nigeria
[3]Department of Public Administration, Faculty of Management Sciences Kogi State University, Nigeria
Corresponding Author: Success Esomchi Obi; Email: speak2successresearch@gmail.com

A B S T R A C T

The paper examined socio-economic factors affecting cashew production in Ogaji, Ankpa LGA, Northcentral Nigeria. Data was collected through a semi-structured questionnaire and interview administered to 143 registered farmers. Data obtained were analyzed descriptively using inferential statistics of mean score ranking, frequency tables and graph. Results showed that majority of the farmers were within the age of 26-35 and have been into farming since birth. Also there was moderate literacy level among the farmers as 50% of total respondents have formal education. Findings reveals that the socio-economic factor affecting production were; Access to and use of credit facilities, farmers-herders conflict, income level, transportation problem, lack of access to capital and poor extension services agent relations were the major socio-economic factors affecting cashew production in the study area. The study amongst others recommends that; the government should encourage private sectors such as Non-Governmental Organizations (NGOs) to invest in credits facilities like small-scale bank to offer credit to farmers at affordable rate, proactive measures should be taken to quell the farmer-herders crisis as it poses threat to farming activities. Government should strive to develop roads; this will increase small holder's economic opportunities by reducing transport cost and allowing farmers to get access to marketing information and small holder's cashew profitability. Extension service agent should try to understand the rural dwellers and their educational level to help them have access to extension services in other to improve their knowledge of farm management.

INTRODUCTION

According to Obi and Uche, (2018), Avidime and Obi, (2020), Agriculture is the production of food and livestock and the purposeful tendering of plants and animals. Agriculture is the foundation upon which the development of a stable human community has depended throughout the whole universe such as rural and urban communities' right from primitive society to modern. It is concerned with the husbandry of crops and animals for food and other purposes. The agricultural sector has the potentials and capacity to be the industrial and economic springboard from which a country's development can take off.   Most agricultural policies which translate to programs and projects

are usually concentrated in the less developed rural areas where there is a need for rural transformation, redistribution, poverty alleviation, and socio-economic development.

The role of Agriculture to national economic development and sustainable development cannot be underestimated, this is because it contributes immensely to the Nigeria economy in various ways, namely, in the provision of food for the increasing population, supply of adequate raw materials (and labor input) to a growing industrial sector, a major source of employment; generation of foreign exchange earnings, and, provision of the market for the products of the agrarian sector and an aspect of agricultural sector that has pivotal to the economy is

cashew farming (Okumadewa, 1997 quoted in Avidime, and Obi, 2020). It is in line with this, that Abayomi, (1997), posits that stagnation in agriculture is the principal explanation for poor economic performance.

Cashew (*Anacardium occidentale*) was introduced into Nigeria agricultural space between the 15th and 16th centuries by the Portuguese explorers and the crop has rapidly spread to all agro-ecological zones of the country. Okon (2016) posited that cashew is well adapted to seasonally wet and dry tropical climates and can grow and yield satisfactorily on well-drained, light-textured soils with minimum inputs. Nigeria is rated as the fourth-largest producer of cashew nuts in Africa and seventh in the world, with the bulk of its raw cashew nuts and cashew kernels exported to Vietnam and India, respectively (Okon, 2016). Therefore, these crops need to be prioritized because of their co-importance as a fruit for the local industries and as well as an export commodity (Oladejo, 2015).

However, from a sustainable agricultural point of view in Nigeria, one of the main constraints is the cashew production system, which has a slow response to technology adoption when it comes to agriculture, low productivity, low return of investment, and rural poverty, (Omosuli et al., 2009). As Okon, (2016) stated when it comes to sustainability, cashew security has to be a guarantee, the living standard of Famers has to improve, and there has to be economic development and prosperity in the rural area. cashew commercialization and investment are some key strategies for promoting, modernizing, and attaining sustainable growth and development. One challenge for Nigeria is identifying the constraints that limit the growth and development in the cashew agricultural sector, and removing them and replacing them with something better will attract investors and therefore improve the sector as well as the economy. Since 1975, had witnessed a decline in the world production of cashew nuts mainly due to political instability in some African producing countries, socioeconomic problems, and the impact of fungal diseases in the major African producers of cashew nuts (FAO, 2014). Widespread planting of cashew in Kogi east was a long-time agro product which it developed to an important smallholder cash crop. It is therefore against this background that this study intends to investigate the socio-economicand environmental factors affecting cashew production in Ogaji in AnkpaLGA with a specific focus on agricultural information available to farmers in these areas and communication strategies with the government.

More than 80% of Nigeria's population and about 40% of the export value of the country depend on agriculture (Avidimeand Obi, 2020). Thus increasing agricultural production to feed the population, produce raw materials for local industry, and export in sufficient qualities to sustain a healthy economy is the major plan of the country (Voortman, 1985). The cashew industry is a sub-sector of the agriculture sector, which according to Nigeria's economy, is one of the backbones of the economy of the country. The economic importance of agriculture, in general, arises from the fact that it earns a sizeable amount of foreign exchange to the nation and makes a good contribution to the GDP. cashew nut is also important relative to other cash crops in foreign exchange earnings. On average it contributes 9% to the total earnings of foreign exchange of the country.

Uwagboe, Adeogun, and Odebode (2010) examine constraints of farmers in cashew production in Orire Local Government Area of Oyo state Nigeria. The study was carried out in 2008 and data were collected from one hundred and ten respondents with the aid of a well-structured questionnaire. Respondents were selected using purposive and systematic sampling techniques. Data were analyzed using descriptive and Pearson Product Moment correlation (PPMc). Results showed that cashew production in the study area the constraints experienced by cashew farmers negatively relate to the income generated from cashew fruits ($r = -0.177$, $P<0.05$). This implies that a significant increase in constraints will lead to a reduction in the income of cashew farmers. These constraints should be considered in developmental plans for cashew farmers in the area. Incentives such as soft loans should be provided for cashew farmers to alleviate the constraints of inadequate financial capital, encourage the establishment of processing industries to increase their level of income Uwagboe, Adeogun, and Odebode (2010).

Hammed, Anikweand Adedeji (2008) conducted studyon cashew Nuts and Production Development in Nigeria. The objective of their

study was to uncover impeding factors to cashew production using the quantitative approach. Findings from the study show that Six different sizes of cashew nuts existed in Nigeria. Six factors were identified to constitute constraints while eleven developmental strategies were formulated. Insect and disease attacks were more devastating threats. Plates of their destructive effects and that of improved cashew material were shown.

Consequently, Wongnaa (2014) carried out a study on the determinants of cashew production with special reference to cashew production in Wenchi Municipality of Brong-Ahafo Region of Ghana. Data collection was through a well-structured questionnaire administered on 140 respondents selected through random sampling technique. The methods of analysis used were descriptive statistics and production function analysis using the Ordinary Least Square (OLS) criterion to estimate the parameters of the production function. Results showed that the majority of the farmers were aging and 55.7% of them have a maximum of five years of cashew farming experience. Also there was a high level of illiteracy as about 61.4% of total respondents have no formal education. Farming was majorly on subsistence level as the mean farm size was 3.33 acres. Results further showed that farm size, fertilizer, pesticides, pruning, education, and contact with extension officers are positively related to cashew output while labor and years of experience are inversely related.

The above studies focus on several factors affecting cashew production in Nigeria from different states and communities. For example, Wongnaa (2014) focuses on the farm size of cashew farmers, the communication gap between farmers and extension services, literacy level of farmers. Hammed, Anikweand Adedeji (2008) argued from the line of loans available to cashew farmers and cashew processing machines, Uwagboe, Adeogun and Odebode (2010) dwell on the developmental plan of the government towards agricultural development. This study without focus on socioeconomic factors such as access to credit facilities, income status of farmers, land tenure system; farmers-herders crisis, transportation problem, labor force availability to cashew farmers which constitute a gap the study covered. consequently, noneof these studies was carried in

Ogaji, Ankpa L.G.Aof Kogi State to understand the environment disparity factors among others affecting cashew farmers in the study area which is another gap the study will fill.

The aims of this article are: (1) To assess the level of cashew production for five years (2014-2019) in the study area; (2) To identify socioeconomic factors affecting cashew production in the study area; (3) To identify indigenous strategies adopted by the cashew farmers to boost cashew production in the study area.

METHODS

The quantitative method was adopted via the survey design. And structured questionnaire was the instrument of data collection. A pre-study visit was made to the study area by the researchers to know how the study area looked like. It identifies farmers that dwell or focus primarily on cashew plantation, in the study area which gave the researcher directions to follow in the study. The population of the study consists of entire cashew farmers in Ogaji which are 143 registered cashew farmers according (cFAN) Agriculture Department of Ankpa Local Government council. Data required for this study include first-hand information from the farmers in the study area, other information was obtained from the cashew Farmers Association of Nigeria (cFAN), Ankpa branch. Data obtained were analyzed by coding and showing the information in tables and charts, which allows for accuracy and good classification of information to make it meaningful using the descriptive and inferential statistical method. The analysis was done using frequency tables and percentages via SPSS Software version 23. Ogaji is a town in Ankpa Local Government Area of Kogi State, Nigeria (see figure, 1-2). Ogaji is situated in the heart of Ankpa Local Government Area and it lies within latitude 7024' - 7030'N and longitude 70 36" - 70 42" e. It is bounded on the North West by Olubojo, to the southeast by Ochunobi, to the west by cBD, and to the south by Allor.

RESULTS AND DISCUSSION

A total of 143 structured questionnaires were administered and 132 were considered valid for analysis. So research findings were presented based on 132 retrieved valid responses.

Table 1. Presentation of Socio-DemographicAttributes of cashew farmers

Variables	Respondents	Frequency (N=132)	Percentage (%)
Sex	Male	95	72
	Female	37	28
Age range	15-25	30	23
	26-35	44	33
	36-45	29	22
	46 above	29	22
Marital status	Married	58	44
	Single	37	28
	Widowed	37	28
educational Attainment	Primary education	29	22
	Secondary	66	50
	Tertiary	37	28
Religious Affiliation	Christian	37	28
	Islam	36	27
	ATR	59	45
Location of Farmers Settlement	Eneokpoli-Ogaji	59	45
	Ogaji	22	16
	Ojuwo-Ogaji	51	38

Source: Field Survey, 2021

The table above presents the socio-demographic attributes of cashew farmer's respondents, and findings show that 95respondents who constituted 72.0% of the population were male while 37 (28.0%) respondents were female. This, therefore, shows that there were more males recorded than females. The study shows that most cashew farmers in Ogaji are men. Furthermore, findings on age disparity reveal that; 30 (28%) respondents were of the age of 18-25, 44 (33%) respondents constituting the larger part of the total population were of the age of 26-35, 29 (22%) respondents were of the age of 36-45 years, while 29 respondents (22%) were of the age range of 46+ years making it a total of 132 responses.

Investigating into the marital status of the respondents, findings indicate that; 58 (44%) respondents are married, 37 (28%) respondents are single, and 37 (28.0%) respondents are widowed, making it a total of 132 responses. This shows that there are more married people in the business. On the educational status of study participants, findings indicated in the table reveal that; 29 respondents (22.0%) attained Primary education, 66 (50.0%) respondents constituting the bulk of the population attained Secondaryeducation while 37 (28.0%) respondents attained Tertiary education. Households require the input of motivated and qualified extension staff, a smaller farmer extension ratio, improved production record keeping, and profit estimating skills.

The higher percentages of illiterate farmers could have a negative impact on the adoption of new production technologies. Generally, education is thought to create a favorable mental attitude for the acceptance of new practices especially of information-intensive and management-intensive practices (Caswell et al., 2001). education is thought to reduce the amount of complexity perceived in technology thereby increasing a technology's adoption. According to Ehler and Bottrell (2000), one of the hindrances to wild spread adoption of especially integrated pest management (IPM) as an alternative method of chemical control is that it requires a greater ecological understanding of the production system. Consequently, findings from the field survey show the religious affiliation of respondents. 37 respondents (28.0%) practice Christianity, 36 (27%) practice Islam while 59 (45%) respondents constituting the bulk of the population practice African traditional religion as specifically said.

Exploring the settlements areas of the farmers, findings reveal the specific place in Ogaji the respondents hail from. 59 respondents which constituted 45% of the population were from

Eneokpoli Ogaji, 22 respondents (17%) were from Ogaji, 51 (38%) respondents are from OjuwoOgaji. This, therefore, shows that the majority of the respondents' locations are eneokpoli Ogaji and OjuwoOgaji.

Figure 1. To assess the level of cashew production over the period of 2015-2021 in the study area
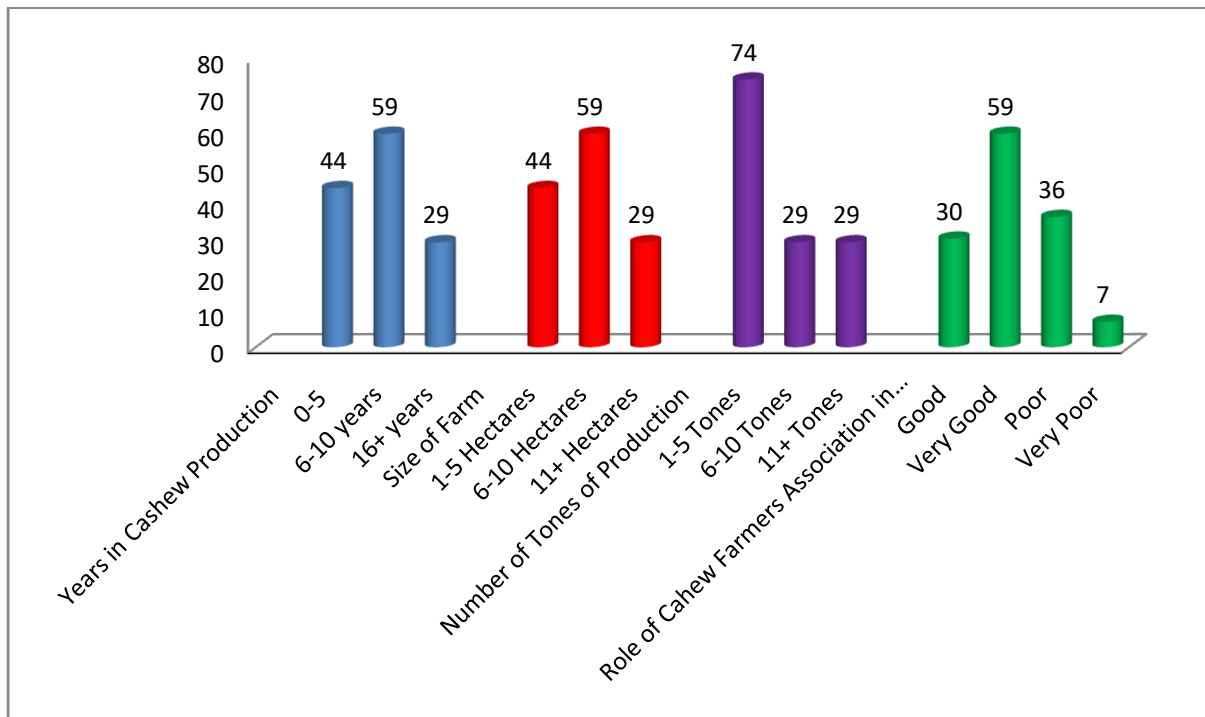
Source: Field Survey, (2021)

Findings from data contained in the graph present information on findings from field survey as it relates to cashew Production in the study area. However, findings on years involved in cashew production show that 44(33%) respondents have been farming cashew for five years, 59 (45%) respondents constituting the larger part of the total population have been farming cashew for ten years, while 29 respondents (22%) have been farming cashew for more than sixteen years and above making it a total of 132 responses. Findings, on the opinion of cashew farmers on the land size of their farm, shows that majority 59 (45%) respondents had a land size of 6-10 hectares, 44 (33%) respondents had 1-5 hectares of land size, while the remaining 29 (22%) respondents are having a land size of 11+ hectares of land

Data contained in the graph further demonstrates that the level of cashew production in the study area per season. Findings revealed that the majority, 74 (56%) produce 1-5 tons of cashew, 29 (22%) respondents produce 6-10 tons of cashew while the remaining 29 (22.%) respondents produce 11+ tons of cashew. These findings show that the level of cashew production in the study area is relatively low compared with vast land reserves, geographical spread, calm weather with a vast population situated in Ankpa LGA. This finding implies that there must be factors, particularly; socioeconomic factors undermine the high production capacity for export. Before examining these socioeconomic factors, the effort was made to investigate the role of a cashew farmers association in promoting cashew production in the study area, findings amongst others show that the leadership of the group has been efficient in promoting cashew production as indicated by the majority, 59 (45%) attestation.

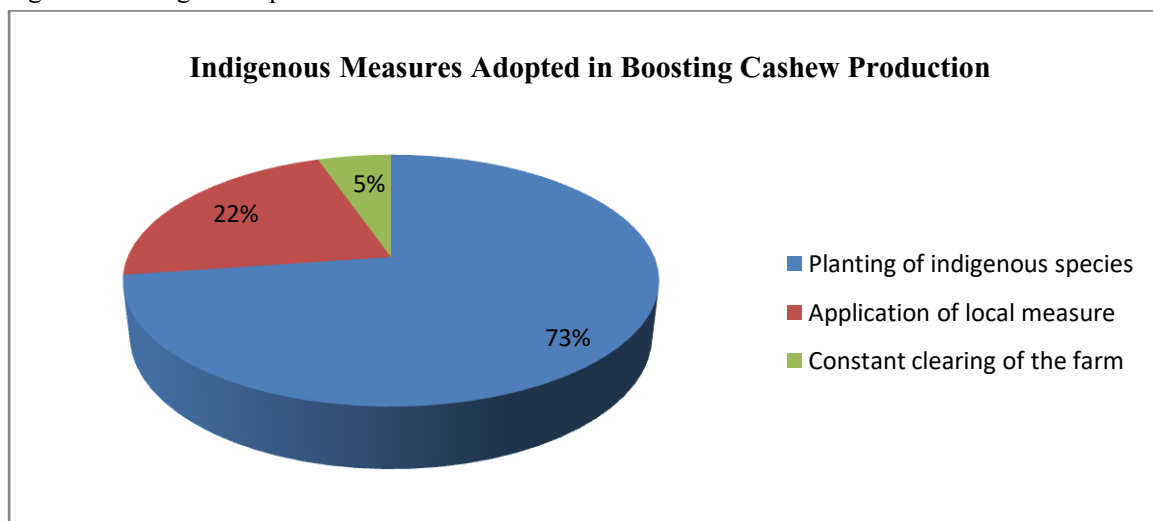Table 2. Socioeconomic Factor Affecting cashew Production

Serial No	Items	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4	FX	N	$\bar{X}$	Rank
1	Access toand useof credit facilities	2	13	46	71	478	132	3.62	1st
2	Farmers-Herders crisis	4	14	54	60	450	132	3.41	2nd
3	Incomeearned/ price to cashew product	4	19	55	54	423	132	3.20	3rd
4	Transportation problem	9	22	40	61	417	132	3.16	4th
5	Lack of capital/access to marketand financial support	11	19	47	55	410	132	3.11	5th
6	Poor extension services	8	14	67	43	409	132	3.1	6th

Source: Field Survey, 2021

From the table, Access to and use of credit facilities ranks first with weighted means of 3.62, followed by the Farmers-Herders crisis ($\bar{X}$= 3.41), Incomeearned/price to cashew product ($\bar{X}$ = 3.20), Transportation problem ($\bar{X}$ = 3.16), Lack of capital/access to market ($\bar{X}$ = 3.11), Poor extension services ($\bar{X}$ = 3.1). The implication of these findings to cashew production in the study area is that apart from the threat posed by farmers-herders conflict in the study area, one of the major constraints in cashew production is the inability to access and use credit facilities which is a major socio-economic factor undermining farming due to low financial capital and if urgent attention is not paid to this issue of poor funding and access to funding output of farm produce will continue to fall beyond what is expected and the reality is that the area had witnessed low production. These findings are consistent with Kirsten et al (2008), who argued that to intensify agricultural production, households may require access to a range of support services, including improved seeds, inorganic fertilizers, credit, technical advice, and output market linkages.

Figure 2. Strategies adopted to Boost Production

Indigenous Measures Adopted in Boosting Cashew Production

73% — Planting of indigenous species
22% — Application of local measure
5% — Constant clearing of the farm

Source: Field Survey, 2021

Findings from the above graph show the opinion of respondents on their views on the indigenous measures that can be adopted for the boosting of cashew production. From the above, majority (73%) of respondents opted for the planting of indigenous species, 22.% respondents opted for the application of local measure, while 5% respondents opted for constant clearing of the farm. This implies that despite socioeconomic factors undermining production like access and use of credit facility cum farmers-herders crisis, local farmers continue to apply diverse methods to help boost production in the study area.

From the analysis gotten from the primary data and other information gotten during this research, it was discovered that low production within the period under review is attributed to socio-economic factors ranging from access and use of credit facilities, the conflict between farmers and herders in the State and its neighboring environment and Northcentral in general is another major contributing factor as farmers are afraid of going to their farm due to fear of the unknown. The majority of the respondents in an interview has this to say: "Our children cannot go to school anymore because of fear being attacked and it affects our development, corps members no longer come to our communities to impact on our children, people from the southeast and west don't come here to trade any longer and it affects our business because we can't sell what we produce". (Interview Respondents, 2021) "We live in perpetual fear and distrust in our land, our young men and women are running away from our land, and it's affecting our development in all aspects" (Group discussion, 2021).

The income level of the farmers was another factor that undermine production, because after growing the nuts the farmers are afraid of going to the farm to harvest on the strong-hearted have the courage to, and these developments affect their income level and thus discourage them from further farming for production. Transportation problem from a place of residents to farm plantation was discovered as another factor affecting cashew production in the study area, transporting cashew from the study area to market is a problem due to bad road, roads have been destroyed by denudation factors such as erosion and high cost of transportation due to hike in fuel pump by the federal government from ₦87 - ₦175 in some cases ₦200 and other cases ₦165 only. Another factor affecting production is Lack of capital/access to market and financial support from State/Local government and NGOs whereby most of the cashew farmers get funds from trading, vocational trade, civil service, and other farm products to support their cashew farm, last but not the list factor undermining production capacity is poor extension services to the rural farmers by the extension agents in the study area.

CONCLUSION

The findings confirmed that many factors undermine cashew production from literature, however, socioeconomic factors were the bane in the study area. We observed that educational attainment also affected technical skills required to boost farm output as the majority of the farmers only attended primary and secondary education at the rural setting which most times have no facilities and even classrooms nor capable hand/qualified teachers to impact the required knowledge and leaves them to their crude way of farm production and thus affect cashew output significantly and hence are the determinants of cashew production in the study area. We recommend that the government should encourage private sectors such as Non-Governmental Organizations (NGOs) to invest in credits facilities like small-scale banks to offer credit to farmers at an affordable rate, proactive measures should be taken to quell the farmer-herders crisis as it poses threat to farming activities. Government should strive to develop roads; this will increase smallholders' economic opportunities by reducing transport costs and allowing farmers to get access to marketing information and small holder's cashew profitability. Farmers should be encouraged to use fertilizers, pesticides to increase productivity. Extension service agents should try to understand the rural dwellers and their educational level to help them have access to extension services in other to improve their knowledge of farm management.

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