Original Research Article

An Assessment of the Marketing Challenges Faced by Cashew Farmers in Kombo South District of The Gambia

ABSTRACT

This study examined the marketing challenges faced by cashew farmers in Kombo South District of The Gambia. The objectives of the study were to ascertain **t**he challenges faced by cashew farmers and to identify ways of mitigating them in the study area. A sample of 384 cashew famers was selected from a population of 9318 farmers in Kombo South District using Taro Yamane formula. The findings of the study revealed that majority of farmers are affected by unstable domestic market prices of raw cashew nuts, lack of market information, poor road networks, large number of middlemen, lack of modern packaging materials, inadequate storage facilities, weak or no cashew farmer organizations, and the presence of pest and diseases. The study, therefore recommended that the government and other relevant stakeholders should help in providing timely market information especially with regards to current prices of raw cashew nuts, rehabilitation of road networks and telecommunication systems to allow farmers to verify prices or sell in better markets, provision of modern packaging materials, adequate storage facilities and trainings on formation and management of farmer organizations will be vital for farmers.

Keywords: Assessment, Market, Challenges, Cashew Farmers, Kombo South, The Gambia

1.0 INTRODUCTION

The cashew tree (*Anacardium occidentale*) originated from Brazil and was introduced to Mozambique and then later India in the 16th century by the Portuguese, as a way of mitigating coastal erosion. Kehinde, Adebisi, Alegiledoye, Ajani and Shofuyi, (2015) opined that elephant contributed to the dispersal of cashew nuts as they eat the whole fruit with seeds which are deposited with their feces.

Cashew is a close relative of poison ivy and mango. Cashew trees can start bearing fruit in their third or fourth year and can provide mature yield in their seventh year if the right conditions are provided (Adeigbe, Olasupo, Adewale, & Muyiwa, 2015). Kehinde et al (2020) also noted that a cashew tree is capable of living for 50-60 years and most cashew trees can produce nuts for about 15-20 years with an average yield of 7-11 kg per annum.

Cashew is majorly produced for millions of small-scale farmers globally. Similarly, (Dangan, 2018) noted that the global annual production is estimated at 2.1 million tons of raw

nuts (RCN) with an estimated value of US$ 1.5 -2 billion with Africa, India, Vietnam and the Philippines being the major cashew production regions. A single cashew nut consists of about 35-45% kernel and around 55-65% of shells. The shells contain 15-30% oil. A ton of nuts contains around 200 kg kernels and 180 kg of oil (cashew nut oil or cashew nut shell liquid "CNSL") (Dangan, 2018).

In 2016–2017 harvest seasons, the global cashew production was reported to be 30 to 40% shorter (125,000 to 250,000 tons) than its average years (Yun, 2018). African cashew production retains its average yield; however, due to lack of processing facilities in the continent, cashew kernel supplies remained low (Fitzpatrick, 2019). India a big cashew producer had a favorable crop season in 2016/17. However, domestic consumption of cashew nuts increased and therefore stopped its export of cashew nuts.

The main exporting countries of in shelled cashew nuts from West Africa are Ghana, Nigeria and the Ivory Coast. Ghana alone had a net worth of about $900M from exporting raw cashew nuts in 2016. The major export destination of raw cashew nuts from West Africa is India and Vietnam, which are two most significant importers of raw cashews and biggest exporters of shelled cashew. Nigeria the number one producer and exporter of cashew nuts in Africa cover about 20% of world in-shell cashew production (African Research Bulletin, 2015).

The Gambian cashew sector ranks 26th in production quantity in tons, 27th in area harvested and 8th in yield (hectogram per hectare) in 2017 (FAOSTAT, 2016). The sector has shown tremendous potential in the last 20 years as an alternative crop to diversify production and exports from the current concentration on groundnuts. The sector's performance has grown steadily in the last few years rising from 2,928 tons in 2013 to 3,065 in 2017 (Food and Agriculture Organization of the United Nations – FAOSTAT, 2016) sustained by the global demand for cashews. The sector's future development depends on the ability of sector stakeholders to address and correct key challenges and seize emerging opportunities in The Gambia. Without concerted efforts to address critical issues and identify market development opportunities the sector's potential will remain untapped instead of leveraging its potential and capacity.

The three main cashew products that are traded on the international market include - raw nuts, cashew kernels and cashew nut shell liquid (CNSL), only the cashew apple is generally processed and consumed locally, it can be eaten fresh, juiced, preserved, or dried. Cashew apple

has more vitamin C than citrus fruit; it is rich in vitamins and minerals. According to Mozafar, (2018) the vitamin C (ascorbic acid) content in a cashew apple is almost 10 times that of pineapple and four times that of oranges. The fruit has medicinal properties. It is used to treat scurvy and diarrhea, and it has the potentials in preventing cholera. Fusco, Siracusa, Peritore, Gugliano, Genovese, D' Amico, and Di Paola (2020) also highlighted that the extracts from the fruit can be used to treat neurological pain and rheumatism.

Cashew farmers are key actors in the value chain; in general, they do not set the international price for cashew and are therefore mostly affected. Several factors influence the overall price of cashew nut from one year to the next. The factors range from the world supply and demand, exchange rates, weather, previous production levels, government policies, regulations, or port (Gilleo, Jassey & Sallah, 2011). These factors have affected cashew farmers over the years immensely.

In other to strengthen the cashew value chain and increase the incomes of rural populations in the targeted zone, projects such as The Gambia River Basin Cashew Value Chain Enhancement Project (CEP) was commissioned and funded through a US Department of Agriculture (USDA) to strengthen farmer-to-farmer learning and builds on the existing knowledge of cashew production and marketing rather copying from outside models, which are difficult to adapt to cultural and environmental conditions. Farmers also participated in farmer field schools and addressed issues of business innovation, marketing, organization, and production and post-collection handling (Gilleo & Sallah, 2011).

Based on the production figures of cashew nuts in the Gambia from 2013-2017, farmers would have been better off than their current status and this would have also stimulated an increase in production. However due to the volatile markets and unstable price on cashew nuts yearly, the livelihoods of farmers in the Gambia seems not to have improved even whereas production has increased from 2,928 tons in 2013 to 3,065 in 2017, their income and social wellbeing remains stagnant.

Cashew farmers in the Gambia have no control over prices and as such, they are exploited at most instances. The prices of raw cashew nuts are dictated by middlemen and retailers on a daily basis. Since farmers do not have access to actual prices from the government (Ministry of Trade or Ministry Agriculture) and few or none are existing official cashew buying centres, they fall prey to the middlemen and retailers who are out to maximize profits. The parallel differences

between international and domestic markets (domestic prices can rise and fall on the same day) hinder the sectors opportunities and potentials and thus remain untapped. This can result to the loss in income and also cause postharvest losses as farmers sometimes keep their cashew nuts with the hope that prices will increase shortly which sometimes doesn't happen because the cashew harvest season is only for four months (Gomez, Fatty, Pinga & Gomez, 2022).

Takele (2010), highlighted that improving marketing facilities for crops in general and cashew sector, in particular, enable farmers in planning their production more in line with market demand, to schedule their harvests at the most profitable times, to decide which markets to send their produce to and negotiate on a more even footing with traders. Besides, a proper cashew marketing system if also enabled will increase production and market efficiency.

Therefore, this study has become inevitable because literature exists on cashew production and marketing in the Gambia but I have not come across any on the effects of market channels and prices on the income and livelihood of cashew farmers in the Gambia.

1.2 Research Objectives

The study aims to:

I. Assess the marketing challenges faced by cashew farmers in the study area

2.0 MATERIALS AND METHODOLOGY

The study was carried out among the cashew farmers of Kombo South District of the Gambia. It is one of the nine districts of the Gambia's West Coast Region, which is located south of the river Gambia. It is located in the southwest of the Region, between Kombo Central and Kombo North.

Population of the study includes all household in the villages engaged in cashew production and marketing. According to the Gambia Bureau of Statistics GBoS (2013), there are 106,780 residents in Kombo South. A sample size of 384 respondents was selected from the population using the Yamane (1967) in (Gomez, Fatty, Pinga & Gomez, 2022), sample size determination formula after which generalizations were made.

2.1 Sample/Sampling Procedure

Purposive sampling techniques were used to select 20 villages from 54. These villages were selected based on their production of cashew. Simple random sampling techniques were used in the selection of respondents for the study.

2.2 Sample Size Determination

The Yamane (1967) sample size determination formula for the finite population was used in determining the sample size for this study. The formula is given as:

$$n = \frac{N}{1 + N(e)^2}$$

$where$:

n = Sample Size (?)

N = Study Population (9318)

e = Error of Precision 95%

1 = Constant

Thus;

Thus;

$$\frac{9{,}318}{1 + 9{,}318(0.05)^2}$$

$$n = \frac{9{,}318}{1 + 9{,}318\ (0.0025)}$$

$$n = \frac{9{,}318}{1 + 23.295}$$

$$n = \frac{9{,}318}{24.295}$$

n =<u>383.5</u>

To make the sample a round figure for easy distribution along with the clusters, the study selected 384 respondents. In order to determine the number of respondents for each village, the proportional sampling technique was used. The number of respondents per village was determined as:

p/qxr

Where:

p = the calculated sample size (384)

q = the population (9,318)

r = total number of vegetable farmers to be surveyed in each village

Table 1 shows the number of respondents across the district in the study area.

Table 1: Number of respondents from each village

Region	Name of LGA	District	Name of selected villages	Population of farmers in each village	Calculation of the number of respondents	No. of respondents
West Coast Region	Brikama	Kombo South				
			Bunkuling Manjako	95	p= (384/9,318 x 95)	4
			Deya Bisenti	18	p= (384/9,318 x 18)	1
			Deya Grrugory	33	p= (384/9,318 x 33)	1
			Deya Manchi	35	p= (384/9,318 x 35)	1
			Deya Nyima	155	p= (384/9,318 x 155)	6
			Faala Banding	41	p= (384/9,318 x 41)	2
			Faala Baniob	50	p= (384/9,318 x 50)	2
			Faala Bayacha	38	p= (384/9,318 x 38)	1
			Fara Kunku	786	p= (384/9,318 x 786)	32
			Gunjur Kunkujang	1193	p= (384/9,318 x 1193)	49
			Kachumeh	564	p= (384/9,318 x 564)	23
			Kenending Saibel	467	p= (384/9,318 x 467)	19
			Kunkujang Mariama	670	p= (384/9,318 x 670)	28

			Nyofelleh	1,616	p= (384/9,318 x 1616)	66
			Pacholling Malang	260	p= (384/9,318 x 260)	10
			Sambuya Konoto	2,589	p= (384/9,318 x 2,589)	106
			Sambuya Amisong	120	p= (384/9,318 x 120)	5
			Sandally	297	p= (384/9,318 x 297)	12
			Sansanding	73	p= (384/9,318 x 73)	3
			Tintinto	218	p= (384/9,138 x 218)	8
1	**1**	**1**	**20**	**9,318**		**384**

Source: Field Survey, 2021

2.3 Methods of Data Collection

Semi-Structured questionnaires (SSQ) were employed to gather data for the study.

Semi-Structured Questionnaires

A Semi-structured questionnaire was used as one of the methods of data collection for the study. The semi-structured questionnaires were designed in such a way that respondents were asked closed and open-ended questions concerning the study. The semi-structured questionnaires were divided into sections in line with the research objectives.

While the first section comprised questions on the personal attributes of respondents, the Second section comprised questions on the level nature of the cashew value chain in the Gambia, the third section housed questions on the impacts of markets and prices on the livelihood of cashew farmers in the Gambia, the fourth section was on the challenges faced by cashew farmers in the Gambia due to poor market structures and poor pricing policies while the last section asked respondents to suggest ways of improving the market structures and formulating better price policies

The researcher and his assistants personally administered the questionnaires on the face-to-face basis to respondents. For those who could either read or write the questions were interpreted to them and their responses recorded. A total of 384 questionnaires were administered to 384 respondents in the study area. The survey method has helped in generating first-hand data and enabled the researcher to capture the bio-social data of the respondents.

2.4 Techniques of data analysis

Data collected for the study were analyzed qualitatively and quantitatively. Data on demographic characteristics of respondents and the challenges faced by cashew farmers in the study area were analyzed using statistics such as frequencies, simple percentages statistics. All these were done with the aid of the Statistical Package for Social Sciences (SPSS 26.0).

2.5 Limitation of the study

A study of this nature cannot be done without challenges. In the course of the study, the researcher experienced that the literacy level of most of the respondents was very low as such it was difficult administering questionnaires to them. The researcher had to hire and train research assistants that help in interpreting the content of questionnaires to them in the local languages; this was time-consuming and added cost on the part of the researcher.

Some respondents were not willing to give information on their attributes even though the researcher assured them of confidentiality. They were skeptical of giving out information on issues like their estimated annual income and farm size.

3.0 RESULTS AND DISCUSSIONS

3.1 Demographic Characteristics of Respondents

The study collected data on the demographic characteristics of respondents including sex, age, marital status, education, farming experience, farm size and respondents estimated annual income.

According to data obtained, 71.4% (274) of the respondents were male while 28.6% (110) were female. On the age distribution of respondents, study findings revealed that 46.9% (180) respondents fell within the age range of 20-35 years, 41.1% (158) were of the age bracket of 36-65 years while 12.0% (46) respondents were in the age category of 66 years and above. This finding implies that majority of the respondents are of middle age and are aware of the global boom in cashew marketing and trade.

Educational status of respondents indicated that 11.7% (45) respondents had no formal education, 6% (23) had primary qualifications while 5.5% (21) had the secondary qualification and 76.8% (295) had tertiary qualifications. Concerning the marital status of respondents' study

findings showed that 52.1% (200) respondents were married, 41.9% (161) were single and 6% 232) were widowed.

On the source of household income of respondents, study findings revealed that 46.1% (177) had their income from farming, 6% (23) from non-farmers activities while 47.9% (184) of respondents had their income from both farming and non-farming activities. This finding implies that the cashew farmers are not solely dependent on cashew farming alone, this can be attributed to their high educational qualification, which implies that they have white coloured jibs in the towns and in the city.

The farming experience of respondents showed that 12% (46) respondents had the farming experience of fewer than 5 years, 40.9% (157) had farming experience between 5-10 years, 35.2% (135) had the experience of 11-15 years, and 12% (46) had the experience of 11-16 years while 18% (36) respondents had the farming experience of between 20 years above. On respondents' farm size, study findings indicated that 22.9% (88) respondents had a farm size of less than 1 hectare, 77.1% (296) had between 1-5 hectares. According to data from the respondents 41.4% (159) had a harvest between 5-10 bags, while 46.6% (179) had between 11-15 bags and 12% (46) had more than 15 bags. The data obtained is presented in table 2 below:

Table 2: Demographic Attributes of Respondents

Variable	Frequency (N=384)	Percentage (%=100)
Gender		
Male	274	71.4
Female	110	28.6
Age		
20-25	180	46.9
36-65	158	41.1
66 and above	46	12.0
Level of Education		
None literate	45	11.7
Primary	23	6.0
Secondary	21	5.5
Tertiary	295	76.8
Marital Status		
Single	161	41.9
Married	200	52.1

Widowed	23	6.0
Source of household income		
Farming	177	46.1
Non-farming activities	23	6.0
Both farming and non-farming activities	184	47.9
Farming Experience		
<5 years	46	12.0
5-10 years	157	40.9
11-15 years	135	35.2
16-20 years	46	12.0
Farm size		
<1 hectare	88	22.9
1-5 hectares	296	77.1
Average yield in Kg		
5-10 bags	159	41.4
11-15 bags	179	46.6
more than 15 bags	46	12.0

Source: Field Survey 2020

3.2 The challenges faced by cashew farmers in the study area

This section deals with the challenges faced by cashew farmers in the study area and the variables analyzed include; availability of market information, prices of cashew nuts, poor road networks, activities of middlemen in the market channel, availability of packaging materials, farmer organizations, and pest and diseases. The data obtained is presented in table 3 below.

Table 3: Challenges faced by farmers in the study area

Variable	**Frequency (N=384)**	**Percentage (%=100)**
Unstable prices		
Agree	384	100.0
Availability of market information		
Agree	384	100.0
Poor road networks		
Agree	100.0	384
Unsatisfactory activities of middlemen		
Agree	292	76.0
Disagree	92	24.0

Lack of modern packaging materials and storage facilities		
Agree	295	76.8
Disagree	89	23.2
Weak farmer organizations		
Agree	300	78.1
Disagree	84	21.9
Presence of pest and diseases		
Agree	182	47.4
Disagree	202	52.6

Source: Field Survey 2020

The data analyzed revealed that majority of the respondents 100% (384) were not satisfied with market prices. This was expressed by a 50-year-old female discussant as thus:

> "How can we be satisfied with the prices, each year the price of other commodities increases but our raw cashew nut prices keep falling, last year's price is better than this year. Who knows how much our next year's produce will cost? I am saying again...we are not satisfied with the prices because we have families to feed" (In-depth interview 2020).
> "These prices change daily and this makes it impossible to determine when to sell at the right price (In-depth interview 2020).

Another 42-year-old discussant stated that;

> "…Although we have a very big market in Brikama and other places, middlemen, retailers and agents come to buy our raw cashew nuts in the villages. These middlemen beat down the prices to have their share of the money collected from the exporters and the prices become very poor. Sometimes after-sales we are not even able to meet our basic needs (In-depth interview 2020).

Similarly, a 50-year-old male discussant highlighted that;

> "We know that the prices that middlemen offer is not the actual market price but we don't have a choice than to sell because most of us need to feed our families, pay school fees (In-depth interview 2020).

The study also found that poor prices result in forced sales, the financial obligations committed during production force farmers to dispose of the commodity immediately after the harvest even though the prices are very low. Such forced sales or distress sales keeps the farmer in a vicious cycle of poverty. Findings of the study have it that farmers in the study area sell their produce at

an unfavourable place and at an unfavourable time and usually gets unfavourable terms. These findings agree with (Agada et al., 2020).

The other challenges highlighted included limited market information, respondents 100% (384) stated that they had little or no market information with regards to prices of raw cashew nuts. They are forced to sell based on the prices quoted by the traders.

A 38-year-old female discussant stated thus:

> "We do not even know the price of raw cashew nuts; every information is from the traders or nearby villages. We have no option but to sell at these ridiculous prices (In-depth interview 2020).

Another 60 years old male discussant stated thus:

> "I have been farming cashew for more than 15 years and every year we get our prices from traders, we grow our crops but the prices are defined by buyers. We need to fix the prices of our produce (In-depth interview 2020).

The findings above are in line with Agriculture-Insurance Government of India (midh.gov.in), who stated that that poor market intelligence was a major problem experienced by most cashew farmers in India, which is also similar to the findings of (Oladejo, 2015).

Majority (384) of respondents mentioned poor road and telecommunication infrastructure as a challenge they faced. The poor roads prevent the farmers from travelling to nearby towns to bargain for better prices at the markets and poor telecommunication also hinders farmers asking about the prices in the market thus, making them rely on the prices quoted by traders.

A 27-year-old male discussant stated that:

> "Our villages are located in the interior where there are no good roads to access them. We don't have markets as such we wait for buyers to meet us in the village. The situation, however, becomes worse especially during the raining season when the roads are completely bad and vehicles can no longer pass through them. In such conditions, middlemen will bring the prices down because they know we have no other option than to sell (in-depth interview, 2020).

A 36-year-old female Discussant said:

> "The mobile network coverage is poor in this village, sometimes to make a simple call one will walk to village football field to get a good reception. Roads are even at the worst state so we are at the mercies of these traders (In-depth interview, 2020).

The existence of a large number of middlemen in the cashew market channel is another challenged reported, respondents 76.0% (292) stated that they were affected while 24% (92) respondents stated that they were not affected by the number of middlemen and their activities. This finding was further highlighted by a 62-year-old male discussant as thus;

> "The number of middlemen buying raw cashew nuts is alarming. We see all kinds of people buying nuts and most of them are out to make profits on our heads. They do not care about how much we have suffered. Middlemen should be issued with trade licenses so that we know who is genuine or not" (in-depth interview, 2020).

However, another discussant didn't agree with the above view.

> "A large number of middlemen in the cashew business to me is good because when they are few, they tend to reduce the price a lot but with many middlemen, I can choose the best price offered" (in-depth interview, 2020).

This implies that middlemen contribute to the exploitation of the farmers in the region, and this has slowed down the expansion of orchards and plantations. This findings above agree with (Agada et al., 2020).

On inadequate packaging materials and storage facilities, respondents 76.8% (295) lamented that these are serious challenges they need to overcome. The sacks used for packaging of nuts and those used by the traders are different thus causing them to lose more income.

A 30-year-old female discussant highlighted that:

> We can't store our raw nuts for long, we do not have the right storage facility and we cannot afford to buy packaging materials in the form of sacks every year, the ones we manage to buy are also discarded by the middlemen as not suitable. They are always looking for means to cheat us (in-depth interview, 2020).

This implies that there are different packaging materials available in the cashew value chain which causes discord between farmers and trader. This finding is in line with (Oladejo, 2015).

With regards to weak farmers' co-operatives, 78.1% (300) respondents stated that weak farmer's co-operatives are a challenge they are facing, as they do not agree on prices. Every farmer sells at his discretion, thus making traders have an advantage over them.

A 35-year-old discussant stated that:

> "The main challenge we have with the marketing of our raw cashew nuts is that we do not form a farmer co-operative in the village. This would have helped us in marketing especially in bargaining for better prices (In-depth interview, 2020).

Similarly, a 53-year-old male discussant highlighted that;

> The farmers in the village are not united and it is the main reason we cannot get better prices for our cashew nuts. Imagine everyone is bargaining on his/her own to sell as quickly as possible this makes it easy for the middlemen to prey on us (In-depth interview, 2020).

Diseases especially moldiness of raw nuts is a challenge that prevents them from gaining good prices for their raw nuts, 64% (128) respondents were affected by this challenge. As a result of poor prices, some farmers will store their raw nut in stores without proper drying as thieves are prevalent during that period of harvesting thus causing moldiness of nuts, lack of fumigating chemicals leads to attack from pest, diseases and thus reducing the price.

A 50-year-old male discussant stated thus:

> Sometimes we store out raw cashew nuts with the hope of selling them at a better price and before you know it, the middlemen will stop coming and keeping the nuts to the next season is not possible as loose most of them will rot or mold and thus losing whole seasons produce (in-depth interview, 2020).

This implies that lack of modern packaging and storage facilities do not lead to cashew nut postharvest losses but also leads to low prices and thus affects the livelihoods of farmers.

4.0 CONCLUSION

The study assessed the marketing challenges faced by cashew farmers in Kombo South District of The Gambia. The study found that there are numerous challenges faced by farmers in marketing of cashew nuts in the study area.

The study concludes that there is limited market information with regards to prices to farmers in the study area and this has cost them losses during trading.

The study also concludes that the price of raw cashew nuts in the study area is not stable and can change with hours.

The study concludes that lack of government regulations and weak farmer organizations contributes to the unsatisfactory nature of cashew production and marketing. Inadequate modern packaging and storage facilities leads to pest and diseases that hinder better prices.

5.0 RECOMMENDATIONS

Based on the above findings and the conclusion reached, the following recommendations were made:

1. Provision of improved cashew varieties to farmers: In the course of the study, it was revealed that most cashew farmers still depend on the use of local varieties of cashew which produce different quality of nuts some of which are very small. The Government with the National Research Institute (NARI) should intensify efforts in the distribution of these improved varieties so that it will reach all cashew farmers.
2. Cashew farmers should form cooperative societies as this will be the easiest channel through which their predicaments can be heard, and other benefits such as regulated pricing mechanisms and market structures, soft loans and even grants can be accessed.
3. The government should assist farmers in seasons where international prices are very low to prevent poverty and hunger.
4. Value addition in cashew nuts should be a priority especially with Food Technology Services (FTS) of the Department of Agriculture (DoA).

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