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Choice of Cocoa Market Channels among Cocoa Farmers in ILA Local Government Area of Osun State, Nigeria

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Abstract: The paper focused on those factors that influence the choice of market channel by cocoa farmers in Ila L.G.A. of Osun State, Nigeria. Specifically, the study examined how problematic accessing those services associated with cocoa marketing in each of the available market channels are. The sample of study consists of 60 cocoa farmers randomly selected from the study area. The study found out that majority of cocoa farmers are males (93.3%) while few females are involved. About 90% of the cocoa farmers are in the age distribution of 46 years and above. The literacy levels of the respondents were found to be very low while majority of the farmers have more than 4 hectares of cocoa farm size. More than 70% of the farmers have been involved in this cocoa farming for more than 11 years.73.3% of the farmers own the cocoa farm while the rest are on rentage. About 18.1% of the cocoa farmers patronize the cooperative society, 24.1% for cocoa merchant, 45.8% for itinerant buyers,12% for other farmers while none goes to government agents. Those factors associated with the choice of each of these channels are the time of payment, mode of payment, price of product, distance from farm, transportation cost and grading of product .Rating these channels on three points Likerts scale to ascertain farmers perception on how problematic accessing each of these factors from each channels have been scored the itinerant buyers as the most preferred, followed by cocoa merchants, other farmers and cooperative society in that order.

Key word: Market channel · cocoa produce · itinerant buyers · cooperative society

INTRODUCTION

The relevance of cocoa to most developing economies cannot be overemphasised as cocoa is produced by more than fifty developing countries across Asia, Africa and Latin America; all of which are in tropical or semi-tropical areas [1-3]. The cocoa market is characterised by a heavy concentration of production in West Africa [4, 5], according to Titilola [6], Nigeria was the fourth largest producer of Cocoa in the world, ranking after Ivory Coast, Brazil and Ghana. Global production of cocoa beans in the 2003/2004 and 2004/2005 crop years reached 3.21 million tonnes, about 3% higher than in 2002/2003 [7]. However, it is estimated that 90% of world cocoa production comes from smallholdings [8, 9]. It is estimated that there are currently 2.5 million cocoa smallholders and if one included those for whom cocoa is not the main activity, the figure could reach 3 million. These smallholder yields average of 350 kg ha^{-1} [9].

In Nigeria, cocoa has been the main agricultural stake of Nigeria economy until early 1970's when the crude oil was discovered in the country in commercial quantity. However cocoa has remained a valuable crop and a major foreign exchange earner among agricultural commodity exports of the country [1, 5, 10]. Nigerian cocoa production declined rapidly from a peak of 300,000 ton in 1970/71 to just 100,000 tonnes in 1986/87, due to a combination of labour shortages and low producer prices. Since liberalization in 1986, grower prices rose significantly and production responded, reaching an estimated 205,000 tonnes in 1999/2000 [11].

However, the age of the tree stock and the incidence of pests and diseases continue to be major constraints to

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Nigerian production. A shortage of rural labour is also a major constraint to expansion and the average age of the cocoa farmer is also high. Many farms are over 40 years old and such farms constitute as much as 60% of the cocoa farms in the country today [10]. Orderly marketing of cocoa also almost stopped with the abolition of the Nigerian Cocoa Marketing Board (NCB) [12]. The immediate effect was the bad quality cocoa that was leaving Nigeria for Europe and hence loss of premium price which had been placed on Nigerian cocoa. However, on the positive side, the fully liberalised marketing system in Nigeria and the minimal taxes placed on the sector ensures that farmers receive a very high and consistent share of the price.

A lot of factors have been attributed to the decline in cocoa production, these include, the problem of depleted soil fertility, poor control of pests and diseases, use of poor planting materials, poor maintenances of cocoa farms, lack of credit facility to support production practices, defective methods of harvesting and poor handling of post harvest processes inefficient agricultural extension Services [7, 13-15].

In response to these problems, the Government of Nigeria established a Cocoa Development Committee (CDC) in 2000, with the aim of revamping Nigeria's cocoa sector. The committee is chaired by the Minister of Agriculture, with the Deputy Governors of the 13 cocoa producing states as members. Through the committee, the government provides cocoa producing states matching grants to raise hybrid, disease-resistant, high yielding and early maturing seedlings for distribution to farmers at subsidized prices. However, replanting efforts continue to be hindered by farmers concern for temporary loss of income [1].

Between 2002/2003 and 2003/2004 the world price for cocoa dropped by about 48% on world markets, from some 3000 dollars US per tonne to about 1560 dollars in 2003/2004 and 1580 dollars as of April, 2005. The largest part of the price is always taken out of prices paid to farmers by the marketing intermediaries (exporters, middlemen and assemblers). This of course had a direct impact on farmers' incomes and food security as low prices have crushed farmers' willingness to invest in fertilizer, pesticide and insecticide to boost and protect their crop.

However, the impact of world market conditions on cocoa producers depends on national policies, production and marketing conditions and social development activities like farmer organizations and cooperative societies. For instance, Agricultural Structural Adjustment policies promoted by the World Bank and the International Monetary Fund have induced most cocoa-producing countries like Nigeria to liberalize internal cocoa markets and prices, causing fluctuations and non uniform product pricing. Likewise, the impact of cooperatives is in the improvements of price and community organization. Cooperative associations are out to promote the fair trade which seeks to give a higher share of the final consumer price directly to farmers [1].

For instance, in Côte d'Ivoire, producers not associated with cooperatives were forced by low prices to sell off their beans earlier than usual at harvest time whereas Cooperatives in contrast were able to spread out sales much more evenly over the year because of better storage facilities and market management [16]. Holding off part of sales in this manner is thus one way to increase the value added accruing to struggling producers and to have a strong regularizing effect on the prices received by both members and non-members. Despite the long-term advantages of liberalization, standardization and regulation of marketing margins in the short run would seem an urgent priority [17].

Ever since the evolution of various economic reforms in Nigeria, that led to the abolition of commodity Boards and the introduction of free market pricing policy the sudden rush to cocoa trade due to higher pricing for cocoa led to increased number of people buying and marketing cocoa [3]. As a result of increased number of Cocoa buyers and marketers, cocoa farmers now have various alternatives channels for selling their produce. This study is therefore aimed at identifying various market channels available, the frequency of patronage of each market channel and factors influencing the farmers' choice of market channel for their produce in Ila LGA.

MATERIALS AND METHODS

Study area: The study was conducted in Ila Local government Area of Osun State and focused specifically on cocoa farmers (both males and females). The Local government comprises of more than twenty towns and villages with her headquarter at Ila Orangun. It has a population of about 50,585 according to 1991 census figure. It is bounded by Ifedayo L.G. A. to the east, Kwara State to the north, Ekiti State to the south and Boluwaduro L.G.A. to the west.

Sampling frame: A total of 60 questionnaires were used for this study.

Sampling technique: Purposive sampling technique was used to select six villages in Ila L.G.A. that are major cocoa producer .They are Ajaba, Ejigbo Orangun, Obalotin, Ogbagbara, Alanwo and Alagbede. Ten farmers were randomly selected from each village to make a total of 60 respondents.

Data collected: Data on personal characteristics, socio-economic data of farmers were collected. Other data collected were:

- Market outlet used
- Frequency of the usage
- Reasons for the usage

Analysis: Analysis involved descriptive statistics like frequencies, percentages and a three point Likert scale to estimate the level of satisfaction derived from patronage of a particular market outlet based on the problems encountered in accessing each of the service factors of each outlet. The scores are assigned as follows: Not a problem [1]; Minor problem [2] and Major problem [3]. A mean score of 1.5 and above indicates high level of unsatisfaction from the patronage and a value below 1.5 indicates relative satisfaction.

Table 1: Distribution of respondents according to sex

Sex	Frequency	Percentages
Male	56	93.3
Female	4	6.7
Total	60	100.0

Source: Field Survey, 2006

Table 2: Distribution of respondents according to age

Age	Frequency	Percentages
0-15	0	0
16-30	2	3.3
31-45	4	6.7
46-60	30	50.0
61 and above	20	40.0
Total	60	100.0

Source: Field Survey, 2006

Table 3: Distribution of respondents according to education level

Education Level	Frequency	Percentages
No formal education	35	58.3
Primary education	22	36.7
Secondary education	3	5.0
Above secondary school	0	0.0
Total	60	100.0

Source: Field Survey, 2006

RESULTS AND DISCUSSION

Results in Table 1 shows that majority of the respondents (93.3%) are males while 6.7 are females. This shows that there are more male cocoa farmers than female cocoa farmers in the study area and this is likely to be connected with the women involvement in some other businesses especially trading in food crops because the study area is also very endowed with food crop production that are normally sold at regional markets like oyan market where the middlemen always meet the farmers. So more women are likely to be involved in buying and selling of farm produce than farming itself. This may also be due to tediousness of cocoa farming activities that are not well suited for females.

Table 2 shows the age distribution of the respondents. About 3.3% of the respondents were in the age category between 16 and 30 years, 6.7% fall between 31 and 45 years, 50.0% fall between 46 and 60years and 40.0% were 61 years and above while none is below 16 years. This result indicates that more than 90% of the respondents fall within the range of 46 years and above, suggesting that the majority of the cocoa farmers are very old. Their old age may influence their productivity and decision making. It is also evident from the Table that underage are not involved as cocoa farmers while the relatively young people are minima which may not be unconnected with the fact that young people are very much involved in the rural-urban migration in search of greener pasture .

As shown on Table 3, the level of education attainment by the respondents is relatively low. More than 95% of the respondents were not educated beyond the primary school level, out of which 58.3% were not formally educated at all. This may be a serious pointer to the expected attitude of farmers to innovations and improved technology. A minority of 5% had secondary education. This poor educational background may likely affect their knowledge of innovations and attitudes to information which are necessary for farm work. Williams *et al.* [18] emphasized the importance of education for farmer training, since it will help them understand extension recommendation better.

Table 4 shows that majority, about 75% of the respondents are experienced cocoa farmer with more than 11 years experience while 25% were people with between 6 and 10 years experience. This relatively long year of farming experience is likely to have exposed them in term

Table 4: Distribution of respondents according to the year of farming

Years	Frequency	Percentages
0-5	0	0.0
6-10	15	25.0
11 and above	45	75.0
Total	60	100.0

Source: Field Survey, 2006.

Table 5: Distribution of respondents according farm size

Farm size (ha)	Frequency	Percentages
0.1-2	8	13.3
2.1-4.0	10	16.7
4.1-6.0	30	50.0
6.1 and above	12	20.0
Total	60	100.0

Source: Field Survey, 2006.

of experience in cocoa production and marketing activities and related information. Several innovations are expected to have been availed them either by design or accident especially through friends, neighbours and extension workers.

As shown on Table 5, about 70% of the cocoa farmers cultivate more than 4 hectares of cocoa plantation while the remaining 30% are those below 4 hectares of land. This shows that majority of the cocoa farmers in this area can be regarded as the big ones among the small-scale cocoa farmers that generally dominate the cocoa production sector in west Africa. This relatively large farm land may be an indication of high output if all other factors are favourable and hence farmers are expected to have relatively high returns at the end of the farming season considering farmers having a relatively favourable market price of cocoa.

About 73.3% of the cocoa farmers in the study area own their farm as shown on Table 6. This may be a very good thing for the farmers as they do not need to be bordered about incurring some other production cost like rentage cost and royalty annually. Some of these costs can be burdensome for farmers as they are likely going to reduce their take home and so affect their livelihood and reduce their commitment to the welfare of their families. A minority of about 26.7% rented their farm land and has to cope with the demands of the aforementioned cost factors. Relatively, given a good market deal and farm outputs, majority of the cocoa farmers in the study area are expected to thrive well.

Table 7 shows that about 16.7% of the cocoa farmers are planting hybrid/improved breed of cocoa. This will reflect their vulnerability to disease and low output per

Table 6: Distribution of respondents according ownership of farm

Ownership Type	Frequency	Percentages
Owned	44	73.3
Rented	16	26.7
Total	60	100.0

Source: Field Survey, 2006

Table 7: Distribution of respondents according to type of cocoa planted

Years	Frequency	Percentages
Local breed	20	33.0
Improved Breed	10	16.7
Combination	30	50.0
Total	60	100.0

Source: Field Survey, 2006

Table 8: Distribution of respondents according to market outlet used

Market Outlet	Frequency*	Percentage
Cooperative organization	15	18.1
Cocoa merchants	20	24.1
Itinerant buyers	38	45.8
Government agents	0	0.0
Other farmers	10	12.0

Source: Field Survey, 2006, *Multiple responses from respondents

hectare which improved breed seeks to address. One may conclude that their low level of education contributed to their low response to adoption of improved variety of cocoa. Not only this, because of the scarce land for plantation of this sought, planting the improved variety may call for cutting down old trees which most farmers may not want to risk because of the fear of uncertainties. About 33.3% still stick to the local breed while the good news is that about 30% are combining the two breed which is an indication of shift towards the adoption of improved variety.

The various market outlet adopted by the cocoa farmers are shown in Table 8.The most patronized outlet are the itinerant buyer (45.8%).These are the people that move from village to village like middlemen to buy produce .Many factors may have contributed to this scenario; these people do buy whether dried or fresh cocoa beans and pay their money on the spot. Many farmers may have adopted this because of their urgent need of money and other conveniences attached to it. The other outlets often patronized by farmers are the cooperative society stores (18.1%), Cocoa merchants (24.1%) and other farmers (12%). Government agents like marketing boards are not patronized at all. Most cocoa merchants are either licensed or not but they enjoy good patronage by farmers possible because of the similar

Table 9: Distribution of respondents according to factors influencing the market outlet chosen

	Cooperative organization		Cocoa merchant		Itinerant buyers		Government agents		Other farmers	
Factors	Frequency*	%	Frequency*	%	Frequency*	%	Frequency*	%	Frequency*	%
Time of payment										
Within 1 day	0	0.0	20	33.3	60	10.0	0	0.0	2	3.3
Within 1week	2	3.3	30	50.0	0	0.0	0	0.0	8	13.3
More than1 week	58	96.7	10	16.7	0	0.0	0	0.0	50	83.3
Mode of payment										
Cash	60	50.0	60	100.0	60	100.0	0	0.0	56	93.3
Cheque	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other means	60	50.0	0	0.0	0	0.0	0	0.0	4	6.7
Price of Product										
High	4	6.7	12	20.0	48	80.0	0	0.0	0	0.0
Moderate	52	86.6	46	76.7	10	16.7	0	0.0	0	0.0
Low	4	6.7	2	3.3	2	3.3	0	0.0	60	100.0
Distance from farm										
Far	42	70.0	10	16.7	0	0.0	0	0.0	0	0.0
Near	18	30.0	50	83.3	60	100.0	0	0.0	60	100.0
Transportation cost										
High	32	53.3	10	16.7	0	0.0	0	0	0	0.0
Moderate	18	30.0	20	33.3	0	0.0	0	0	0	100.0
Low	10	16.7	15	25.0	0	0.0	0	0	4	6.7
No cost	0	0.0	15	25.0	60	100.0	0	0	56	93.3
Grading of product										
Satisfactory	20	33.4	38	63.3	48	80.0	0	0	1	1.7
Not satisfactory	8	13.3	10	16.7	10	16.7	0	0	52	86.7
Indifferent	32	53.3	12	20.0	2	3.3	0	0	7	11.6

Source: Field Survey, 2006. * Multiple responses from respondents

mode of operation like the itinerant buyers. Among some of the factors that inform the choice on market outlet by farmers are the price of produce that are negotiable in some outlets and not negotiable in the others, others include ease of payment, mode of payment, transportation cost and the problem of produce grade that has a direct bearing on the price. This last factor was found out not to be stringent condition with some outlets while very important to others.

Table 9 shows the distribution of the responses of cocoa farmers according to the way services are being rendered to them from each of the market outlets. Five factors on promptness of payment, how payments are made, comparison of produce prices within the outlets, the distance covered in accessing the outlets, the transportation cost involved and the problems encountered in grading the produce were asked. Itinerant buyers were the most favoured by the cocoa farmers as all of them indicated the prompt payment of money within a day, payment by cash, no distance covered to sell and no transportation cost. About 80% of farmers agreed that the pricing was high and the grading mechanism satisfactory. Cocoa merchants, other farmers and cooperative society store followed in that order It is interesting to know that some farmers have to sell their produce to other farmers because of the credit facility they enjoyed from that quarter before the harvest time which they have to pay back with produce. This explains the reason for problems encountered in pricing of produce. Also, the payment at the cooperative society stores are delayed because of the problem they also encountered in clearing their cheques from the marketing board which do not normally go down well with the farmers.

Table 10: Distribution of Respondents according to their preference for market outlet

	Mean score				
Factors	Cooperative organization	Cocoa merchant	Itinerant buyers	Government agents	Other farmers
Time of payment	2.45	1.24	1.00	-	2.62
Mode of payment	1.06	1.02	1.00	-	1.02
Price of Product	1.96	1.52	1.20	-	2.01
Distance from farm	2.20	2.10	1.00	-	1.20
Transportation cost	2.18	2.10	1.00	-	1.25
Grading of product	2.30	1.90	1.00	-	1.10

Source: Field Survey, 2006. * Note Mean score of 1.5 and above is considered to be unsatisfactory factor

Table 10 shows the relative level of satisfaction of respondents on the various areas in which they access services from each market outlet and these are subsequently ranked. The cocoa farmers seem to be satisfied in all the areas in which they require services from the itinerant buyers as their means are all well below 1.5. These are time of payment (1.00), mode of payment (1.00), price of produce (1.20), distance from farm (1.00), transportation cost (1.00) and grading of product (1.00).These may likely be responsible for the choice of this particular market outlet by majority of the cocoa farmers in the area. Also closely rated to this outlet in terms of satisfaction and by consequence preference are cocoa merchants, other farmers and cooperative society in that order as shown on the table.

The delay between when produce are sold and when payment are made is an important negotiation cost that influences the choice of an outlet for cocoa farmers. This may be considered as an indication of risk; the faster it is, the lower the risk and vice versa. Delay in payment is assumed to discourage farmers from the choice of an outlet and hence the choice of itinerant buyers. Likewise, two related factors are the transportation cost and the distance from the farm. The larger the distance, the higher the transportation cost and the higher the cost of marketing which farmers always like to bring down to enhance their profit. Transportation cost increases with increased distance from farm and also related to this is the condition of road. Bad road tends to increase the transportation cost and so farmers will prefer a very low transportation cost if they cannot completely avoid it. Uncertainties are attached to grading of produce, when grading becomes a stringent condition, farmers stand the chance of their product being rejected or the price being brought down and so farmers will tend to prefer a situation of not facing either of the two consequences attached to grading of produce. All these factors are considered very relevant as shown on the Table 10 in explaining the reasons why the cocoa farmers in Ila L.G.A. of Osun State have made their choice of market channel for their produce.

CONCLUSIONS

This study has shown that the coca farmers in the study area have made their choice of market channels for their produce based on time of payment, mode of payment price of product, distance from farm, transportation cost and grading of product. Majority of the farmers involved in the study patronized itinerant buyers, cocoa merchant, other farmers and cooperative society store in that decreasing order. However, one can conclude that the delay between when produce are sold and when payment are made is an important negotiation cost that influences the choice of an outlet for cocoa farmers. Delay in payment discouraged farmers from the choice of an outlet. Transportation cost increases with increased distance from farm and also related to the condition of road. Bad road tends to increase the transportation cost and so farmers will prefer a very low transportation cost if they cannot completely avoid it. Uncertainties are attached to grading of produce because farmers stand the chance of their produce being rejected or the price being brought down and so farmers will tend to prefer a situation of not facing either of the two consequences attached to grading of produce.

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