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Farmers Knowledge, Attitude and Practice of Cocoa Certification in Southwest Nigeria

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Abstract

The study explored the levels of knowledge, attitude and practice of cocoa farmers in Southwest Nigeria towards certification process. It specifically examined the sources of information, factors militating the adoption of certification processes and identified the training needs. A set of pre-tested questionnaire was used to solicit information while multistage sampling procedure was used to select 60 respondents each from two locations Ilare in Osun and Ile-Oluji in Ondo States. Results revealed a mean age of 43.33 years, farming experience 22.70years, farm size 8.73ha and age of farm 22.15years while yield was recorded as 14.14 tons. It was also established that 86% could read and write, 52.50% of the respondents were aware of certification process while only 35% had extension contact. Correlation analysis showed a positive and significant relationship at ($r= 0.315$ $p<0.007$) between farmers' knowledge and practice of cocoa certification process. However, the KAP analysis showed positive attitude (65%), knowledge (10.50%) and practice (6.45%). It was concluded that the farmers had positive attitude to what can increase their produce but low knowledge which is consequential to their low practice of cocoa certification procedure which by implication can affect their yield and bean quality negatively. It is recommended that for sustainable production of cocoa, training and re-training of farmers is needed for quality and exportable cocoa bean.

Keywords: attitude, knowledge, and practice

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Introduction

Knowledge, attitude and practice study, usually refers to as KAP, is a diagnostic survey aimed at exploring the changes in knowledge, attitude and practice of a target group on an issue. Specifically, it reveals the discrepancies or changes in knowledge and practice of the target group on the said issue and it is explained by their attitude. Famuyiwa (2011) identified the relationship between knowledge and practice as a means of identifying training needs among farmers. It was also re-established in Famuyiwa (2013) that knowledge does not always equal to practice. Asenso-Okyere and Davis(2009) defined knowledge as organized or processed information or data fundamental to the pursuit of innovation. Development is about improving practice, which is achieved through innovation, information or a behavioural change to what used to be. However, knowledge management is a pivot to development (Lopokoiyit, M.C. Onyango, C.A. and. Kibett,J.K., 2015).

The success of agricultural development rest on proper use of information as stated further by Asenso-Okyere and Davis (2009) They also claimed that for knowledge to lead to change, it must be created, accumulated, shared and used. The call has been placed to all stakeholders on Agriculture in Nigeria that concerted effort should be placed on agricultural development to allow the sector perform its former role as the driver of the nation economy. Among exportable crops that can play this role are; cocoa, oil palm, kola, and rubber among others.

Cocoa is one of the main contributors to the non-oil sector in Nigeria economy. It contributes 2% of the nation's export earnings and 20,000 households in the 14 cocoa producing states earn their living from cocoa cultivation, as recorded by National Cocoa Development Committee (NCDC, 2008). Its contribution is next to crude oil, while it gives Nigeria the 4th position in the world market in 2009 with a production of 300 mt. (International Cocoa and Confectionary Organization, ICCO, 2010); though Iremiren (2011) iterated the possibility of Nigeria cocoa production to increase by 100% in view of the new released cocoa hybrid by CRIN.

Apart from serving as source of livelihood to smallholder farmers, it is playing tremendous roles in the health sector. (Olubamiwa, 2004, ICCO, 2010 and (British Broadcasting Corporation, BBC, 2010) reported that the consumption of cocoa products reduces fatigue, prevents malaria, diabetes and hypertension among others. However cocoa production in Nigeria has been facing some problems due to the imminent ban threat placed by the European Union (EU) if a Maximum Residue Level (MRL) of 0.01mg/kg is not achieved. Nigeria smallholder cocoa farmers are noted for heavy use of chemical as reported by Asogwa and Dongo (2009), that out of the 125,000 – 130,000 metric tons of pesticides used yearly in Nigeria, cocoa pesticides accounted for 31%, fungicides 65% while insecticides 35%. Mohit (2008) also emphasized that the government should make a concerted effort in retrieving banned pesticides in the possession of cocoa farmers and discourage the usage. ICCO 2010, corroborated that for production to be sustainable in terms of economy, social and environment, best known practices in cocoa production should be engaged by farmers.

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In the forgoing, some agencies such as UTZ certified through Solidaridad, and Archer Daniels Midland Company (ADM), to mention but few came up with the process of farmers' certification in order to achieve monitoring of best practices. The aims of certification according to (Solidaridad, 2010) are to; ensure that farmers keep good agricultural practices, safeguard the environment, promote health and safety of producers/work, ensure that social issues including child labour and gender are taken into consideration, as well as consumers' confidence in the final products.

There is need for Nigeria to revert to developing the non-oil sector of the economy, by focusing on her rural economy. Cocoa was one of the cash crops that have placed Nigeria in the 2nd position in the world production in the past. It has suffered neglect in the past years but through the discovery of high yielding varieties the country has a potential of increasing her production from 300 mt to 640mt. However, the threat from the European Union (EU) to ban cocoa from Nigeria as a result of not conforming to the Minimum Residue level (MRL) of .01mg, has created exporting problem. ICCO (2010) also made a recommendation of best known practices on cocoa production to have a sustainable standard in the aspect of economy, social and environmental sustainability. Badcock-walters, P. Kelly, M. and Gorgenes, M. (2004) as reported by Famuyiwa and Torimiro (2011) attributed that key antecedents of behavioural change are knowledge, attitude and belief. Information builds up knowledge while knowledge is an important factor in risk aversion because it shapes attitude hence behaviour. Consequently, there is need to study the knowledge, attitude and practice of cocoa farmers on certification process to understand conformity or non-conformity to save Nigeria cocoa bean from world market ban.

Objectives

The broad objective of the study was to assess farmers' knowledge attitude and practice on Cocoa Certification in Southwest Nigeria.

The specific objectives were to:

1. assess respondents' socio-economic characteristics;
2. investigate levels of awareness of cocoa farmers on certification process;
3. investigate respondents' sources of information and
4. analyse respondents' knowledge, attitude and practice on cocoa certification process.

Ho1

There are no significant relationships between farmers' practice and their years of experience, knowledge and attitude of cocoa certification process

Methodology

Cocoa is produced in five of the six geo-political zones; Southwest, Southeast, North-central, North-east and South-south. Smallholder cocoa farmers in Southwest, Nigeria were considered for the study. Based on the earlier visit by CRIN Scientists to two earlier maturing cocoa adopters in Ilare Osun State, a purposive sampling technique was used in selecting Ilare in Osun State and Ile-Oluji Farm Settlement in Ondo State. Questionnaire was administered to assess, among other socioeconomic characteristics, the levels of knowledge, attitude and practice of the farmers on

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certification process. Two sessions of Focus Group Discussions (FGD) were held, one at each study area to solicit in-depth information to complement the findings in the questionnaire. The data were analyzed using Statistical Package for Social Science, SPSS, 18.

Results and discussion

Socioeconomic characteristics

Table 1 shows that mean age of the farmers was 43.3years. This result corroborates the findings of Agbongiarhuoyi *et al* (2013) that younger age group are entering into cocoa farming as against the claims of Uwagboe *et al*, (2010), Iremiren, (2011) and CTA Agritrade (2012) that older age group are in cocoa farming. This is an indication that there were more young people in cocoa farming in the study areas. This may be as a result of lack of job for young school leavers as about 55% were in the age group of 20-40 years. This is also an indication that this age group was in their active age. Akinbile (2007) supported this that ages within 20-40 are more active force in farm enterprise. The involvement of younger people in cocoa farming is an indication that able men will be involved in the enterprise. This is a possibility that more literate people that can read simple instructions will be there. It is also an indication that cocoa which requires some labour can now be practiced by an age group that is still filled with energy and vigour.

Table 1: Socioeconomic characteristics of respondents

Variable	Percentage (n=140)	Mean	Std
Age (Years)			
20 - 40	55.00	43.33	16.21
41 - 60	26.67		
61 - 80	18.33		
Sex			
Male	74.17		
Female	25.83		
Farm size(Acres)			
0.5 - 5	52.50	8.73	3.10
6 - 10	17.50		
11 - 15	7.50		
16 - 20	7.50		
21 - 25	1.67		
> 25	5.00		
Age of farm(Years)			
< 11	34.17	22.15	16.08
11 - 20	20.00		
21 - 30	20.00		
31 - 40	6.67		
41 - 50	14.17		
51 - 60	5.00		
Awareness of certification process			
Aware	52.50		
Not aware	47.50		
Farmers extension contact			
Yes	35.00		
No	65.00		

Source: Field survey, 2014

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It also reveals that 74.17% of the respondents were male while 25.83 were female. It is an indication that more males were into cocoa farming in the study areas. Hence it can be deduced that cocoa farming is a strenuous activity that can be upheld by male. Yusuf and Adisa (2012) reported that gender is a factor in farming.

Result in Table 1 also shows the distribution of cocoa farmers according to their farm size in acres. It revealed that the mean farm size was 8.73 acres while the majority (60%) of the farmers had between 0.5 and 10 acres. Farming more acres of land can improve farmers yield and performance and increase in livelihood if Good Agricultural Practices are maintained. Respondents' mean farm age was 22.15 years. About average (40%) had farm between 11 to 30 years of age and about 74.17% of the respondents' farms were under productive age of between < 11 to 30 years. It was further found that farmers' extension contact was very low with a majority (65%) not having contact while only 35% had contact. However, the awareness of cocoa certification among the farmers was above average as 52.50% aware will 47.50 were not ware. Awareness is the foundation that knowledge rests on. Extension contact is very low and this will definitely have negative influence on certification process. When innovation is disseminated, it is important that Extension agent make necessary follow-up, to assess adoption and reason for non-adoption or discontinuance.

Level of education

Figure 1 shows the distribution of respondents according to their educational level. Among the respondents; 14% had no formal education whereas 86% had education ranging from incomplete primary to completed post-secondary school. Though the majority (86%) could read and write, while 14% could not read nor write however, it is important to note that 23% completed their post-secondary school. This is an indication that probably youth engaged in farming because of lack of white collar jobs. Nevertheless, education is significant in knowledge acquisition. Agricultural development involves changes from the primitive ways of farming to modern and mechanized farming that requires a level of education that propels knowledge through information acquisition. The study negates the findings of Deji and Enuenwemba (2005) who stated that low level of education is a typical characteristics feature of an average rural dwellers in Nigeria. Moreover, this level of education may have a positive effect on sustainable cocoa farming and improve trade.

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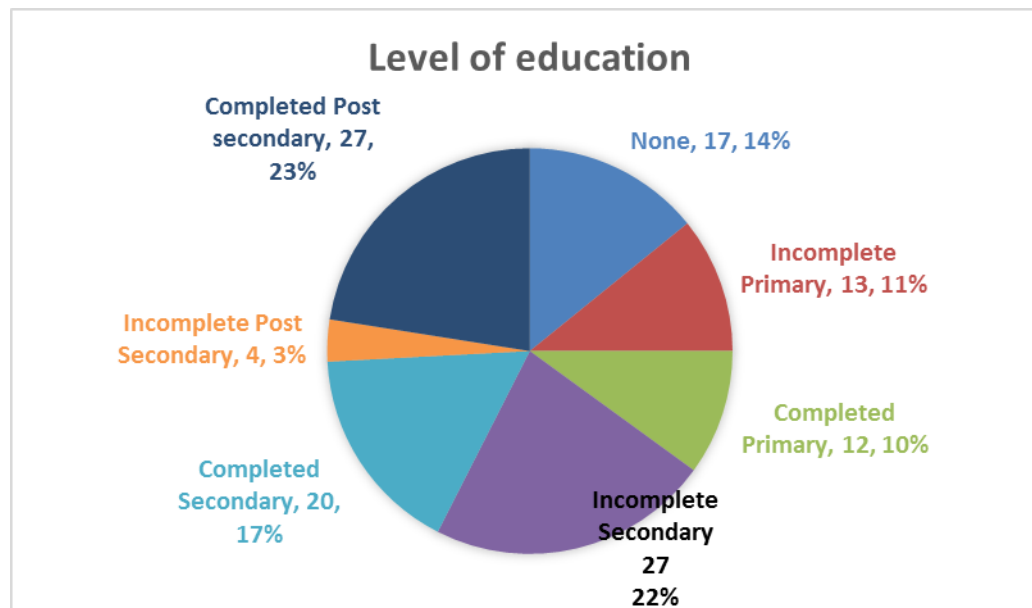


Figure 1: Level of education

Sources of information

Figure 2 shows different ways by which respondents acquire information used in their farming enterprise. The highest source was cocoa workshop (65.83) while the least was extension agent at 22.50%. It is also important to note that 55.83% and 33.33% accounted for information sources from fellow farmers and cocoa buyers respectively, while only 41% sourced from research institute. Information seeking sources is a prerequisite of the quality of knowledge a farmer can acquire. Seeking information majorly from fellow farmers and cocoa buyers may be detrimental to certification hence stands as impediment to sustainable production. This is because; these groups may likely protect their own interest rather than that of the information seeker.

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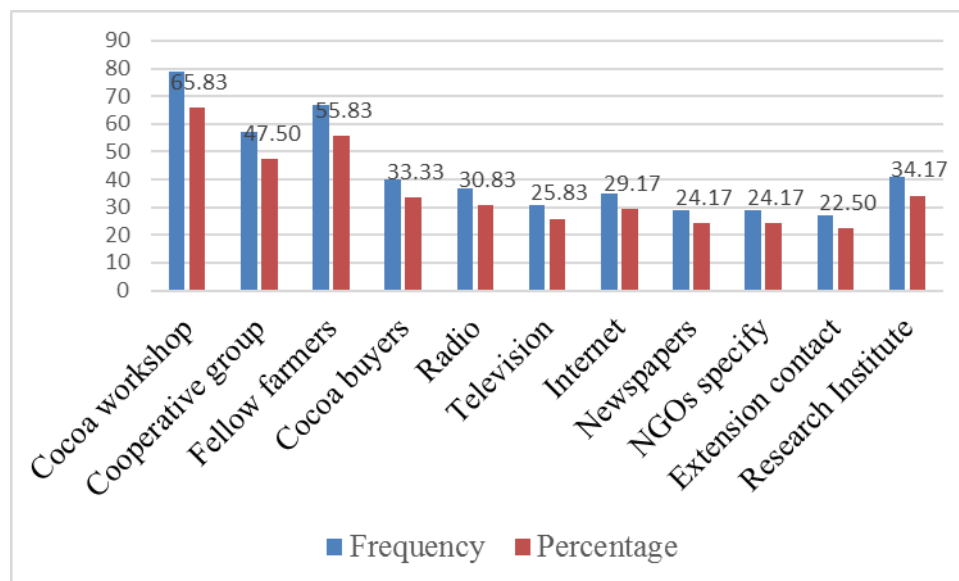


Figure 2: Respondents' sources of information

Years of farming experience

The farmers mean years of farming experience as shown in figure 3 was 22.70 years while 18.33% had above 41 years and the least between 1 to 10 years were 30.83%. From the Focus Group Discussion (FGD), majority were born into cocoa farming. Two of the farmers stated.

I inherited this farm from my father – Adeyemi Jacob

I have some cocoa trees that are older than me and am about 60 years – Duduyemi Alo

The majority (69.17%) of the farmers had over 11 years of farming experience. This study corroborates the findings of Lawal and Sanusi (2010) in a study of cocoa farmers in Ondo and Kwara States that most cocoa farmer in Nigeria have more than 20 years of farming experience. Although experience is defined by Merriam- Webster (2000) as collection of events and or activities from which an individual or group may gather knowledge, however, long experience in farming can only be appreciated if put into practice.

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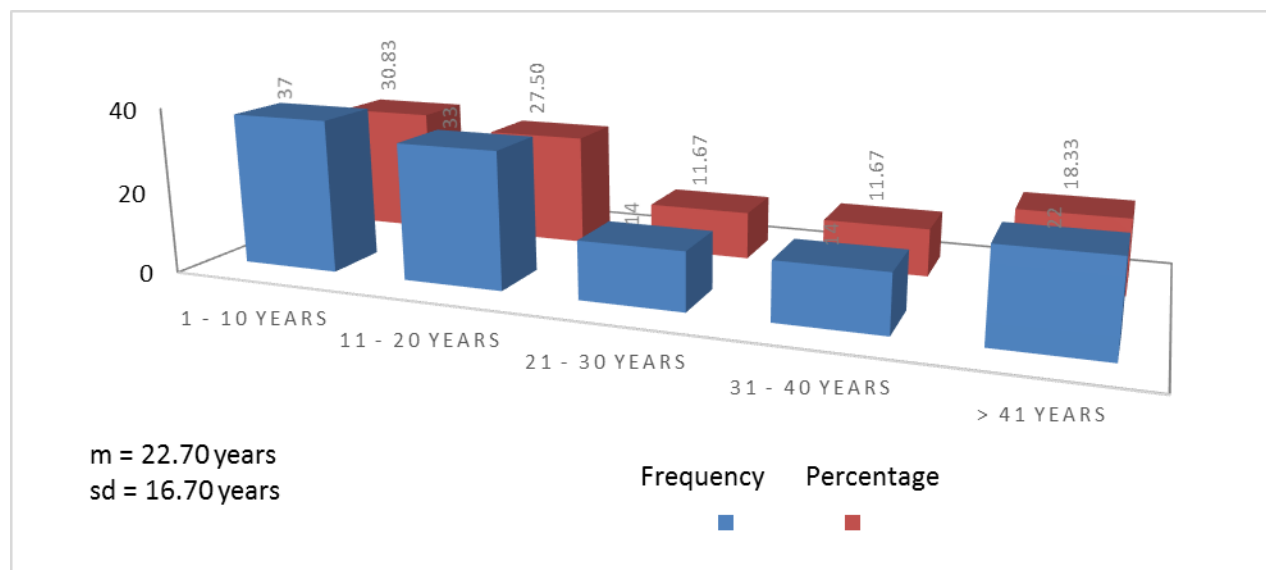


Figure 3: Respondents' years of farming experience

Levels of Knowledge, Attitude and Practice of Cocoa Farmers on Certification Process

Table 2 reveals that the respondents had a knowledge mean score of 14.0 with 10.5% of the respondents scoring above mean and 89.50% below. It is an indication that the respondents had very low knowledge of cocoa certification process. However, the mean attitude of the respondents was recorded as 51.74 and 65% scored above the mean while 35% had scores below the mean. From the result, it also shows that the respondents had positive attitude. The practices mean score was 8.26, with 6.45 scoring above the mean and 93.55% below the mean. This showed that 93.55% have not been practicing cocoa certification.

Table 2: Respondents knowledge, attitude and practice on cocoa certification

S/N	Variables	Levels	Scores	Percentage		Total
				Ilare	Ile-Oluji	
1	Knowledge(max score= 54)	Know	> 14.03	11.2	9.8	10.5
		Do not Know	< 14.03	88.8	90.2	89.5
2	Attitude	Positive	> 51.74	63.33	66.67	65
		Negative	< 51.74	36.67	33.33	35
3	Practice	Practice	> 8.26	5.6	7.3	6.45
		Do not Practice	< 8.26		92.7	
				94.4		93.55

Source: Field survey, 2014

The results show that there were relationships between the KAP analyses. Knowledge is the foundational basis in understanding KAP and is defined as facts,

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information and skills acquired through experience of education; theoretical and practical understanding of a subject (Mickan, 2014). It was described as a road map to achieving goals through practice. It can be deduced from the result that knowledge is important in practice. However, the gap between knowledge and practice is explained by the attitude individual has to the knowledge acquired. Attitude was defined by Allport (1935) and described Kimmel (2012) and Wikipedia (2016) as a mental and neural state of readiness or a disposition to an issue. Kimmel (2012) established that effect of attitude on knowledge is a reflective of the practice of an individual on adoption of an innovation.

Correlation Between Knowledge and Practice of Cocoa Certification Process Among Respondents

Table 3 shows that there was positive and significant relationship between farmers' knowledge and practice of cocoa certification among respondents at $r = 0.315$ at $p = 0.007$. The decision rule rejects the null hypothesis. The implication is that as farmers' knowledge on cocoa certification process increases, practice increases.

Table 3: Relationship between practice and knowledge

Variable	r	r ²
Practice	0.315**	0.1

** $P \leq 0.05$. Source: Field survey, 2014

Though according to Mickan, 2014 explanation on gap between knowledge and practice is suggested as under use and over use of effective knowledge, uncertainty about the benefit. These can be referred to as subjective factors which are controlled by individual attitude. However, for sustainable cocoa production and trade, knowledge needs to be increased through training and attitude improves through behavioural change.

Conclusion and Recommendations

Farmers had high awareness on cocoa certification. Farmers knowledge on cocoa certification was still low. Farmers had positive attitude towards cocoa certification. Farmers had low practice of the cocoa certification.

Concerted efforts should be made by CRIN and Certification bodies such as; Solidaridad, and Archer Daniels Midland Company (ADM) to intensify frequent campaigns, sensitizations, workshops and more contact through their extension agents. The farmers should be encouraged by high premium purchases of their produce to adhere to cocoa certification process

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