



ISSN 2278 – 0211 (Online)

## Effect of Advance Payment of Coffee Delivered to Farmers Cooperative Societies on Farmers Satisfaction a Case of GUSII Cooperative Societies, Kenya

Javan Ngeywo Chemiat

Coffee Directorate, Agriculture, Fisheries and Food Authority

### Abstract:

*Co-operative societies are meant to increase bargaining power of its members and ensure optimal benefit is achieved in terms of earning higher prices for their produce and improving livelihood of its members. Members of cooperative societies expect marketing agency services offered by Co-operatives to be of high quality based on pricing, duration to payment and commission charged for service offered. This therefore influences the level of satisfaction or dissatisfaction felt by the farmers. The purpose of the study was to establish level of influence of advance payment by Coffee marketing agency services on cooperative society members' satisfaction. A case study research design was used on a target population of 1131 farmers in Kisii County and a sample size of 287 drawn using Stratified simple random and simple random sampling technique. Data was obtained using Questionnaires, interview schedule and analyzed using both descriptive and inferential statistical techniques at 0.01 level of confidence with the aid of Statistical Package for Social Science (SPSS) version 22. Results of the study showed that 77.3% of farmers were satisfied of being coffee farmers. Results further showed that there was significant influence on advance coffee payments ( $p=0.000$ ). Advance payments made to farmers were not adequate and reliable, hence the study recommends that coffee cooperative societies in the area need to establish better ways of paying farmers early enough so that farmers will strive to improve their coffee quality and quantity.*

**Keywords:** Advance payment, Cooperative societies, Kisii county, marketing

### 1. Introduction

Agriculture sector is key to the Kenyan economy and essentially, it is the largest source of employment of the rural population (Republic of Kenya, 2012). Coffee is second traded commodity and first agricultural traded commodity in the world with an estimated value of over 80 billion US dollars annually (Esquivel & Jimenez, 2012; Pendergrast, 2009). The leading producing countries in coffee are Brazil (32.4%), Vietnam (17.9%), Indonesia (6.4%), Colombia (5.7%) and Ethiopia (4.5%) (International Coffee Organization ICO, 2013).

World total coffee production in the year 2011/12 was 134.4 million 60 – kg bags compared to 133.5 bags in 2010/11, a slight increase by 0.7% (ICO, 2012). ICO further showed that coffee consumption across the world grew over the last ten years to 138.5 million bags in the year 2010/11 this is associated with growth in the emerging markets and increased domestic consumption in exporting countries. Ethiopia is Africa's largest producer that accounts for about 2% of global output (Cleland, 2010; Tilahun, 2007). Uganda and Ethiopia are the leading coffee exporters with Kenya being the 7<sup>th</sup> in the overall (Kenya Institute of Policy Research and Analysis – KIPPRA, 2012).

The industry faced the challenge of declining land-holding sizes where Coffee is grown due to competition with agricultural enterprises like horticulture and real estate development (CBK, 2013). In the last ten years the Coffee industry in Kenya injected over 100 billion shillings in the country's Gross Domestic Product (Republic of Kenya, 2012; Karanja & Nyoro, 2002). There was also restructuring of institutions such as Coffee Board of Kenya and Coffee Research Foundation to improve performance and create an alternative coffee marketing avenue through direct sales. The government of Kenya waived loans to farmers worth 6 billion shillings in the last four years (Republic of Kenya, 2012).

Historically, Coffee has been an important commodity in Kenya because of its contribution to foreign exchange earnings, farm incomes and employment opportunities (Mureithi, 2008; Nyoro, 2002). Missionaries introduced coffee cultivation in Kenya in the year 1893 at Bura then kiambu. Further developments have occurred with the Coffee variety since the fifties and currently there are two recently released varieties namely, Ruiru 11 and Batian. The varieties are resistant to Coffee Berry Disease (CBD) and Coffee Leaf Rust hence can reduce the cost of production to an estimated 30% to 40% in Ruiru 11 and Batian respectively (CRF, 2011).

Coffee ranks fourth after tea, tourism and horticulture in GDP contribution (Republic of Kenya, 2012). About 600,000 smallholders are engaged in Coffee production and currently command a 55.6% share of the market (CBK, 2013, Kamau et. al., 2011; Jayne et. al, 2003). Coffee production has been on a declining trend since 1989 when a record 130,000 Metric Tons of clean coffee was produced to as low as 50,000 Metric Tons in the year 2012.

Kisii County occupies an area of 1317 km<sup>2</sup> with a population of 1.1 Mas per 2009 census. Coffee is one of the main cash crop and major source of income in the county besides tea, sugar cane, bananas and horticultural crops. In the last decade coffee production in the county declined from 4500 MT to 1600 MT thus affecting the farm incomes of the households in the County. The smallholder farms remains one of the major challenges to be overcome in order to ensure Coffee remains a viable farm enterprise in Kisii county and Kenya at large (CBK 2013).

Solomon, (2002) states that economic efficiency objectives is mainly concerned with the cost of performing several marketing functions, such as purchasing, transportation, storage, processing, exchange. He did not bring out the role of marketing agency in Coffee marketing. Farmers must utilize marketing channels, regardless of whether they are production oriented or market-oriented, if they produce goods, which are in excess of their domestic consumption. For some cooperative societies, this is simply a matter of routine, selling through the same outlets year in and year out. However, farmers are required to choose between various marketing channels in order to dispose of their produce (Gathura, 2013; Murthy & Naidu, 2012; Daviron & Ponte, 2005).

Majority of coffee farmers in Kisii County market their coffee through Farmers Cooperative Societies (CBK, 2013). However, in recent years, concerns have been raised on marketing activities provided by FCS. This is caused by members' dissatisfaction with agency services rendered to them by their cooperative societies. As members understand, the cooperatives are expected to genuinely perform their marketing activities and provide adequate services to members (Tilahun, 2007; Bulow & Sorensen, 2007; Bacon, 2005). Customer expectations about the quality of services offered and the criteria for performance of the services have a significant impact on the level of satisfaction (Megressal et al, 2013; Christopher, 2005). Customized farm credit helps individual producers to purchase inputs like organic fertilizers and seed stock to increase agriculture productivity or adapt to climate change (Locke, 2010; Talbot, 2002; Lucier, 1990). Tang *et al.* (2004) found that pay satisfaction is a part of job satisfaction, which could lead to higher productivity. In this case farmers could be inspired to achieve more and to give full effort only if they are satisfied with their marketing agency services provided to them by their cooperative society. Frequency at which farmers would receive their cash earlier, their satisfaction increased (Gemson, 2013; Gitu, 2012). Despite the expectation, Nduati(2012)and Theuri (2012) reported that farmers' dissatisfaction has led them not to deliver their coffee to FCS in Kigumo District, Muranga County, but inadequate studies have been conducted in Kisii county to determine how agency services of advance payments paid to members influence their satisfaction or dissatisfaction level. The purpose of the research therefore was to investigate the influence of advance payment of coffee delivered to Co-operatives on satisfaction of the members and suggest a way forward.

## 2. Research Design and Methodology

### 2.1. Research Design

This study employed a case study research design, which was a deliberate attempt to collect data from members of population in order to determine its current status in respect to one or more variables (Mugenda and Mugenda, 2003). A case study research design was used because the population studied is too large to observe directly hence it was necessary due to economy of taking a sample of the population to generalize results for the whole population.

### 2.2. Target Population

The study targeted a population of 1131 members and a sample size of 287 persons from the population. The distribution of the target population was FCS management 36, Nyakoe FCS 197 Nyaguta FCS 472, Magena FCS 241 and Nyamarambe FCS 185.

### 2.3. Sampling Procedure and Sample Size

According to Mugenda and Mugenda (2003), the main factor considered in determining the sample size is the need to keep it manageable in time, finance and other resources affordably and more so provide unbiased representative data that can be generalized. The researcher employed stratified simple random design to select the sample size. Stratified sampling was used to select a sample from members' categories of the total population. According to Oso and Onen (2005), stratified sampling technique is a technique that identifies subgroups in the population and their proportions and select from each subgroup to form a sample. In selecting the sample size for FCS members, Morgan and Krejcie (1970) table was used to get the sample size. Therefore the sample size for the study according to the table was 287.

### 2.4. Data Collection Instruments

Both primary and secondary data was used. The primary data was obtained from coffee co-operative management and members. The secondary data were obtained from coffee co-operative records. The study used questionnaire to collect survey information. As Wilson and McLean (1994) stated, questionnaire provide structured information, being administered without the presence of the researcher, and often comparatively straightforward to analyze. The questionnaire comprised both of open and closed ended questions modeled according to the objective. In depth Interview schedule was carried out for FCS management representatives and the questions structured in the sheet tallied with the objective of the study.

### 2.5. Pilot Case Study

To ensure the reliability of the research instruments, piloting was done in Mobambafcs. This area was used for piloting because the population has similar characteristics. The research instruments were administered to the same pilot group twice after a given interval. The Cronbach's coefficient alpha of 0.85 was achieved through the aid of SPSS programme and it confirmed that the instrument was reliable thus adoption. Corrections were made based on the findings before using the instruments to collect data from the actual respondents of this study.

### 2.6. Data Collection Procedures

Before collecting data, a letter to the Coffee Co-operative management requesting to be allowed to collect data from the Co-operative societies. During the day of the data collection, the researcher went to the individual Co-operatives and sought permission from the management to carry out the study. After permission was granted, the researcher proceeded to the respondents to whom he also explained the purpose of the visit. The respondents were assured of the confidentiality of any information they gave and were guaranteed of liberty to discontinue at any stage of the interview should they wish to without condition.

### 2.7. Data Analysis

Data was coded and inferences made (Kombo and Tromp, 2006), collected data was analyzed using both descriptive and inferential statistical techniques. Karl Pearson correlation coefficient was conducted to test the hypothesis for the study at 0.01, confidence interval. Data coding, entry and analysis of data was done with aid of Statistical Package for Social Science (SPSS) version 22.

## 3. Results and Discussion

### 3.1. Return Rate

This study experienced 97% response rate this inferred positive response to the study.

### 3.2. Response by Gender

Results on gender of FCS members in figure 1 shows that 85.3% were male while 14.7% were female. This therefore shows that there is gender imbalance in members' representation in cooperative societies in Kisii County. The findings agree with those of Ntabo, 2011; Lyon et al, 2010; Omwoyo, 2008 and Oxfam, 2004 on gender disparities in the agriculture sector. The findings further tally with Nduati (2012) study in Kigumo District coffee cooperative societies where 78.9% of the members were males and cited the reasons for this is based on the fact that male were regarded as owners of coffee bushes while in other instances, female were reluctant to participate in the research process.

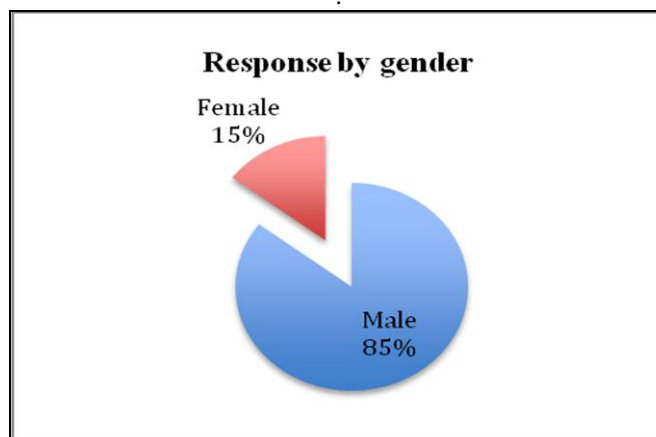


Figure 1: Response by gender

### 3.3. Response by Age

Respondents' age category in table 1 reveals that 31.7% were aged over 56 years 31.3% were aged between 46 – 55 years, 23.7% were aged between 36 – 45 years, 9% were aged between 26-35 years while only 4.3% were found to be aged below 25 years. The result agrees with findings by Theuri (2012) in his research in Mukurweini district that most coffee farmers are of retirement age.

### 3.4. Respondents' Educational Level

Table 2 shows response in terms of farmers' educational qualification, 70.6% were found to have primary level of education, 21.9% had attained secondary level of education, 4.3% had diploma level of education while 3.2% had university level of education. The varied educational level shows that the respondents had understanding on the issues concerning the marketing agency services provided by their cooperative societies. These results agrees with Nduati (2012) study who found out that most of the FCS members in Kigumo District had basic level of education.

### 3.5. Duration in the Society

Table 3 gives information about how long farmers have been members of their cooperative society, 51.1% had been members for a period exceeding 9 years, 20.1% had been members between 7-9 years, 15.5% were found to have less than 3 years membership while 13.3% had 4 – 6 years membership. This implies that the respondents had adequate information and experience on the coffee agency marketing services provided by their cooperative societies and were therefore useful in giving a historical perspective. On whether they were satisfied being members of the society, 77.3% acknowledged satisfaction while 22.7% were not satisfied at all.

Age	Frequency	Percent
Under 25 years	12	4.3
26-35 years	25	9
36-45 years	66	23.7
46-55 years	87	31.3
Over 56 years	88	31.7
Total	278	100

Table 1: Respondents by age

Qualification level	Frequency	Percent
Primary	196	70.6
High school	61	21.9
Diploma	12	4.3
University	9	3.2
Total	278	100.0

Table 2: Respondents education level

Membership duration	Frequency	Percent
Less than 3 years	43	15.5
4-6 years	37	13.3
7-9 years	56	20.1
Over 9 years	142	51.1
Total	278	100.0

Table 3: Membership duration with cooperative society

### 3.6. Advance Payments for Coffee Delivered and Access to Credit for Farm Inputs

Results from the research established that 51.4% of respondents agreed that advance payments were occasionally provided to them by their FCS, 23% indicated they were rarely provided with advance payments, while a total of 21.9% said they were always given advance payments and 3.6% said that they had never been given advance payments for the coffee delivered for marketing. The results imply that most FCS within Kisii County are not in a position to provide advance payments to farmers upon delivering their coffee cherry for marketing. This could therefore be a recipe for illegal coffee dealings due to need for money. Results of the research are tabulated in table 4.

Most of respondents (62.6%) agreed that they always receive credit for purchasing farm inputs for coffee farming from their cooperative society, 23% rarely received credit as 13.7% occasionally received while 0.7% had never received credit for farm inputs from their society. The result indicates that despite most FCS not providing advance monetary payments to farmers for their coffee delivered for marketing, most of them provided agricultural inputs like fertilizers and chemicals as part of advance payments. However there is contention about the timing of purchase, type of fertilizer and the pricing.

Frequency of advance payment	Advance payment		Access to credit for farm inputs	
	Frequency	Percent	Frequency	Percent
Occasionally	143	51.4	174	62.6
Rarely	64	23.0	64	23.0
Always	61	21.9	38	13.7
Never	10	3.6	2	0.7
Total	278	100	278	100

Table 4: Response on advance payment frequency

### 3.7. Statistical Testing of Hypothesis

A correlation analysis was carried out to test the hypothesis  $H_{01}$  "there is no significant influence of advance payments by cooperatives on the level of members' satisfaction". Results of the study in table 5 indicated that there was significant positive ( $p=0.00$ ) influence of advance payments by cooperatives on the level of members' satisfaction. This led to the rejection of the null

hypothesis ( $p < 0.05$ ). Results affirm that by advance payment the farmers will obtain capital that will necessitate them carry out other activities as they wait for the final payment.

Advance payment	Correlation	
	Pearson correlation	0.354
	Sig. (2-tailed)	0.000
	N	278

Table 5: correlation statistics

### 3.8. Challenges of Coffee Marketing In Kisii County

The respondents were asked to state the problems that they faced in coffee marketing in their area. Main Challenges in coffee marketing in Kisii County include unpredictable Coffee prices, Transport, since most factories are near rivers, Grading system, Market information delay, Price setting, skilled Labour shortage, affordable Credit availability, Scaling/weighing of coffee and multiple taxation

## 4. Conclusions and Recommendations

The results of the study showed that there is significant ( $p=0.00$ ) correlation of advance payments for coffee delivered for marketing on the level of members' satisfaction. This impact directly on farmers' motivation on coffee hence improved good agricultural practices that ultimately lead to increased quality and quantity production. Cooperative societies therefore ought to strive to get alternative source of income to enable them pay farmers on delivery of their coffee.

In light of the discussions and conclusions of the research findings,

- There is need for farmers' cooperative societies to look for good markets which would offer competitive prices to members thereby increasing their satisfaction levels. This would involve proper timing of the market to increase chances of getting higher bids for their coffee.
- The farmers' cooperative societies need to re-strategize on how coffee payments are going to be made within a short period of less than two months after delivery by farmers to the society.

### 4.1. Suggestion for Further Research

Based on the nature and conclusion emanating from the study findings, the study suggests further research to be done on factors influencing coffee production in Kisii County

## 5. References

1. Bacon C (2005). Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua? *World Development*, 33 (3): 497–511.
2. Bülow, D.V & Sorensen, A., (2007), Gender and contract farming: Tea out grower schemes in Kenya: Review of African Political Economy: 20 (56); 38-52.
3. Christopher, M. (2005). Meaningful motivation for work motivation theory. *Journal of Management Review*, 2, 235–238.
4. Cleland, D., (2010). Impact of coffee production on local producers (unpublished research proposal), California polytechnic state university. pp 9-34.
5. Coffee Board of Kenya (CBK), (2013), Nyanza Region Annual Reports: Ksi/AR/Vol.1/17, pp. 35-76.
6. Coffee Research Foundation (CRF), (2011). Quarterly report, issue no.17, coffee research foundation publication, pp 3-6.
7. Daviron, B & Ponte, S (2005). The coffee paradox: Global markets, commodity trade and elusive promise of development, Zed books, pp 25.
8. Esquivel P & Jiménez, V.M (2012). Functional properties of coffee and coffee by-products, *Food Research International* 46: 488–495.
9. Gathura, M.N (2013). Factors affecting Small-Scale Coffee Production in Githunguri District, Kenya: *International Journal of Academic Research in Business and Social Sciences* Vol. 3 (9): pp. 2222-6990.
10. Gemson, S.C, (2013, 17<sup>th</sup> June). Plans to give Kenyan coffee a global mark of identity, *Daily nation*, 06:17 ,pp 28.
11. Gitu, S, (2012). Kahawayetu, our coffee: a need for better organizational capacity in Kenya's coffee cooperatives, (unpublished Msc. thesis), university of Guelph, Canada, pp 12-20.
12. International coffee organization (ICO), (2013). Website [www:http//ico.org](http://ico.org), December, 2013, Accessed December 2013.
13. Jayne, T.S., T. Yamano, M.T. Weber, D. Tschirley, R. Benfica, A. Chapoto, & B. Zulu. (2003). "Smallholder income and land distribution in Africa: implications for poverty reduction strategies," *Food Policy*, vol. 28(2003): 253-275.
14. Kamau, M., Mose, L., Fort, R & Ruben, R, (2011). The Impact of Certification on Smallholder Coffee Farmers in Kenya: The case of UTZ program, Tegemeo institute of agricultural policy and development, Egerton university, pp 9-10.
15. Karanja, A.M & Nyoro, J.K (2002). Coffee prices and regulation and their impact on livelihoods of rural community in Kenya, Tegemeo institute of agricultural policy and development, Egerton University, pp 27-29.
16. KIPPRA (2012). Value Addition in Coffee Industry in Kenya: Lessons from Cut Flower Sector. ICBE-RF Research Report No. 21/12.

17. Kombo, D.K. & Tromp, D.L.A (2006). Proposal and Thesis Writing: An Introduction, Nairobi: Paulines Publications Africa, pp 10-45.
18. Krejcie, R.V. & Morgan, D.W. (1970). "Determining Sample Size for Research Activities." Educational and Psychological Measurement.
19. Locke, R. M., & Reavis, C., & Cameron, D. (2010). Fair Trade Coffee: The Mainstream Debate. Fairtrade, Labeling Organization. Retrieved December 2013, from <https://mitsloan.mit.edu/MSTIR/sustainability/Fair-Trade-Coffee/Documents/08%2006%20Fair%20Trade%20Coffee%20The%20Mainstream%20Debate%20Locke.pdf>. Pp, 12-35
20. Lucier R, (1990). The international political economy of coffee from Juan Valdez to Yank's Diner. The review of Austrian Economics, Vol. 4, pp. 241-48.
21. Lyon, S, Bezaury, J.A & Mutersbaugh, T, (2010). Gender equity in fairtrade organic coffee producer organizations: Cases from Mesoamerica; Geoforum, 41(2010), 93-103.
22. Megressal, B, WeldeMicahele, G & Teshome, D, (2013). Knowledge and attitude of smallholder coffee producing farmers to coffee quality: the case of Oromiya and SNNP regional states, Ethiopia. Sky Journal of Agricultural Research Vol. 2(7): pp. 98 – 106.
23. Mugenda, M. & Mugenda G. (2003). Research Methods Quantitative and Qualitative Approaches. Nairobi: Act Press. pp. 42-43.
24. Mureithi, P.L (2008). Coffee in Kenya: some challenges for decent work, working paper, international labour organization, Geneva. Pp, 2-28
25. Murthy, P.S & Naidu, M.M, (2012), Sustainable management of coffee industry by-products and value addition: Resources, Conservation and recycling, 66 (2012): 45– 58.
26. Nduati, (2012). Factors influencing service provision by Cooperative societies in Kigumo District, Murang'a County, Kenya. MA Project, and University of Nairobi.
27. Ntalo, M (2011). Gender discrimination: a philosophical inquiry on gender discrimination in land inheritance among the Abagusii, Kenya, LAP LAMBERT Academic Publishing, pp. 20-27.
28. Nyoro, J.K (2002). Agriculture growth in Kenya, Tegemeo institute, Egerton university, Kenya pp 8-35.
29. Omwoyo, S (2008). Assessing the impact of coffee production on Abagusii women in western Kenya: A historical analysis (1900-1963). <http://www.codesria.org>, PP, 156-157.
30. Oso, W.Y. & Onen, D. (2005). A general guide to writing research proposal and report: A handbook for beginning researchers. Kisumu: Options Printers and Publishers.
31. Oxfam, (2004). Trading away our rights: women working in global supply chains. Oxfam International, London. <[http://www.oxfam.org/en/files/report\\_042008\\_labor.pdf/download](http://www.oxfam.org/en/files/report_042008_labor.pdf/download)> Accessed, July 2014
32. Pendergrast, M. (2009). "Coffee second only to oil?". Tea & Coffee Trade Journal, 181, (4), 38-41.
33. Republic of Kenya, (2012). National Agriculture Sector Extension Policy, Government of Kenya, pp 21-34.
34. Solomon, T. (2002). Performance of Cattle Marketing in Southern Ethiopia with Special Emphasis on Borena Zone Strategy study (final report paper). Addis Ababa.
35. Talbot, J.M, (2002). Coffee crisis: The Case for a Regulated Market. Georgetown Journal of International Affairs, 3(1): 45-52.
36. Tang, T.L. & Roberto, R.L. & Toto, S (2004). From Income to Pay Satisfaction. The Love of Money and Pay Equity Comparison as mediators and Gender as Moderators. Management Research, 3(1), 7-26.
37. Theuri, B.N (2012). Factors affecting coffee revitalization programmes in Mukurweini district Nyeri County, Kenya, (unpublished Msc thesis, University of Nairobi). pp. 1-31.
38. Tilahun, D (2007). Performance of coffee marketing co-operatives and members'; satisfaction in dale district: SNNPRS-southern Ethiopia. M.Sc. Thesis. Haramaya University. in press.
39. Wilson, M. & McLean, S. (1994). Questionnaire Design: A Practical Introduction. Newton Abbey, C. Antrim: University of Ulster Press.