



Effects of Cooperative Loan on the Cattle Marketing in Ogun State, Nigeria

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Abstract: This study examined the effect of cooperative society loan on the cattle rearing and marketing in Ogun State, Nigeria. Specifically the study described the socio-economic characteristics of the respondents; examined the cost and returns to cattle marketing, analyze the effect of cooperative on returns to cattle marketing and identified the problem encountered in cattle marketing. A total of fifty (50) well-structured research questionnaires were administered among cattle marketers in the area, but forty seven (47) were returns good and used for analysis. The data generated were analyzed using descriptive and inferential statistics. The result revealed that majority of the respondents, constituting about 68.0% fall within the active age range of 31-50 years with the average age of the respondents was 45 years. Majority (89.4%) of the respondents had at least one form of education or the other, and majority (89.4%) of respondents are membership of cattle marketing association. The total revenue for cattle marketing was ₦1,297,430.56 while the total marketing cost was ₦1,071,391.84 representing 60.36% of the total revenue. The marketing efficiency index of the cattle marketers was 1.21%. This value is well above 100%, implying that the revenue generated from cattle by the marketers is sufficient to offset all costs with reasonable proportion as profit margin. The net income was significantly influenced by age, marital status, years of formal education and amount of loan borrowed. It is however experiencing major setbacks, for instance, price fluctuation and high cost of transportation. It is therefore recommended that youths should be encouraged to participate in marketing activities to expand the current marketing system and to address the challenges facing agriculture in term of food insecurity and revenue generation.

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1. Introduction

Livestock production is considered to be an important pathway out of poverty for the rural poor in developing countries (Kristjanson, 2010) and worldwide 1 billion poor people depend on livestock for their livelihoods (McDermott, 2010). Livestock are living assets contributing to nutrition, food security and building wealth. The increasing consumption of meat in some developing countries, related to rising household income and rapid urbanisation, has been well documented (Werner *et al.*, 2013).

The livestock sector has been contributing considerable portion to the Nigeria's economy immensely supporting economic development of the country. Livestock rearing not only contribute for economic development but also the livestock products and by-products in the form meat, milk, hides, egg, cheese and butter provide nutritious diet for people (Endalew & Ayalew, 2016). Also, it plays an important role in providing export commodities such as live animals, hides and skins to earn foreign exchanges to the country.

The agricultural cooperatives have been there over the years to play this role of drastic structural change in agriculture towards achieving food security and also the socio-economic upliftment of the farmers. Uchenna and Olabisi (2012) noted that the original impetus for the organization of cooperatives in Nigeria came from agriculture, or more precisely, from the marketing of cash coops for export. Since then cooperative development has taken different forms and dimension. He noted that, ninety-six percent of cooperative societies in this country are designed basically to serve the needs of agriculture. Even the four percent which constitute non-agricultural cooperative societies have great relevance for agriculture and use agricultural product and bye-products.

Throughout human history some activities have always been undertaken by groups rather than individuals, simply because this was a better and more economic way of doing things. Cooperative marketing is a method of working together with others having the same or similar needs or problems. It is a method of pooling resources and human endeavour, acting in an organized, disciplined manner. Cooperative marketing is the collaborative efforts of two or more companies working together in advertising and promotional efforts to reach the same goal. This is sometimes referred to as co-op advertising, but is also not limited to the advertising arena alone. Typically this is seen when a manufacturer supports the efforts of a retailer, but can also be used by multiple businesses looking to pool their resources to defray costs for advertising and promotion (DiBona, 2009).

Informal network of financial markets participants include money lenders, rotating savings collectors, mutual assistance groups, Self-Help Groups (SHGS) etc. the Self-Help groups have long been in existence in Nigeria as informal or semi-formal associations known in different tribes as *Isusu* in Igbo, *Adashe* in Hausa, *Ajo* in Yoruba, *Yak"kishar* in Ngas, *Bam* and *Oku* in Tiv and Kalabari Ijaw respectively, etc. These associations become formal institutions of credit if they are registered as cooperative societies (Mande and Lawal, 2014). They are sub-set of the formal institutions (when registered) which cover a wide spectrum of economic activities including farming, fishing, petty trading, arts and crafts, local processing and the likes that serve as source of livelihood of millions of Nigerians living both in rural and urban areas. Of recent, Cooperative Societies have increased significantly in terms of number, membership and activities across the country. They provide a veritable source for funds mobilization and participatory credit administration in Nigeria. They are organized to mobilize savings and to channel financial resources to individual needs, largely for consumption.

The Cooperative Societies are said to supplement the efforts of the formal financial institutions by mobilizing and channeling financial resources to the deficit areas (especially to the low and medium) income earners in Nigeria in both rural and urban centres. Their role in economic life of the Nigerian economy cannot be over emphasized. There is no doubt that cooperatives, which have their primary goals centres on social and economic aspect of their members and by extension the society as a whole can be employed for this purpose. Cooperatives, although established conventionally to cater strictly for the well-being of members have been discovered to be a veritable tool for economic progress and improved standard of living in the ever changing world (Anigbogu *et al.*, 2016).

Marketing functions are performing by cooperative societies to add values to members farm produce and possibly eliminate the exploitation of farmers by the middle men (Kishor, 2010). According to Taiwo *et al.* (2015), cooperative is viewed as an organization for the promotion of economic interests of its members. Meanwhile cooperative society does not only restrict itself to economic wellbeing of its members but also giving them social inclusion.

As livestock is a "near-cash" capital stock, they serve as insurance in times when crop fail to give yield due to droughts (Asmare, 2018). Regardless of the huge livestock available, it appears that the country is getting inadequate benefit from this resource, that is, below the potential both at national and smallholder economy levels mainly due to low productivity. Among the major setbacks, feed and water shortage, disease and poor veterinary services, lack of appropriate technology, limited attention, poor extension (Shapiro *et al.*, 2015) and problems related to policy and strategy for livestock development can be mentioned as factors that contribute to underutilization of the resource. The driving forces behind these factors include

vulnerability contexts like population pressure, agricultural intensification and degradation of natural resources, shocks through drought and floods and erratic rainfall especially in dry areas.

This rising demand for beef presents poor livestock producers with significant opportunities to increase the benefits gained from their livestock and raise income through increasing livestock sales. However, to date there have been few documented examples of smallholder farmers being able to take advantage of these opportunities. This paper describes one such example in which small-holder families in Vietnam, whose livelihood was based on small, diversified crop–livestock farms, were able to change from being traditional ‘cattle keepers’ to becoming market-oriented ‘cattle producers’ within a relatively short time span. A series of small research-for-development projects provided interventions that both catalysed and supported this development.

1.1. Objectives of the Study

The broad objective of this study is to examine the effect of cooperative society on the cattle rearing and marketing in Ogun State, Nigeria. The specific objectives are to: examine the cost and return structure of cattle marketing in the study area; and analyze the effect of cooperative on returns to cattle marketing in the study area;

2. Research Methodology

2.1. Study Area

Ogun State, western Nigeria, created in 1976 and comprising former Abeokuta and Ijebu provinces of former Western state, the latter carved out of former Western region in 1967. Ogun is bounded by Oyo and Osun States to the north, Lagos state to the south, Ondo state to the east, and the Republic of Benin to the west. It is covered predominantly by tropical rain forest and has wooded savanna in the northwest.

Agriculture, the economic mainstay of Ogun, produces rice, corn (maize), cassava (manioc), yams, plantains, and bananas. Cocoa, kola nuts, rubber, palm oil and palm kernels, tobacco, cotton, and timber are the main cash crops. The Aro granite quarries near Abeokuta, the state capital, provide building material for much of southern Nigeria. Mineral resources include limestone, chalk, phosphates, and clay. Industries produce cement, canned foods, foam rubber, paint, tires, carpets, aluminum products, and plastics. Abeokuta, an important market centre, is a terminus of the roads and railways coming from Lagos and other parts of the country. Major tourist attractions are Olumo rock, which according to tradition provided refuge for early Egba settlers; the Ake, the residence of the *alake* (the traditional ruler of Egbaland), built in 1854

and noted for its collection of antiquities and relics; and the Centenary Hall, all in Abeokuta.



Figure 1: Map of Ogun State showing the Study Area

Sources and Methods of Data Collection

Both primary and secondary data were used for the study. The primary data were collected through the use of well-structured (pre-tested) questionnaires. The required information was obtained directly from the cattle marketers while the secondary data were obtained from published journals, books, Internet, periodicals, government official websites and other relevant sources.

2.2. Sampling Techniques

A simple random sampling technique was employed in this study to select a cross section of fifty (50) sampled respondents in the study area.

2.3. Methods of Data Analysis

(i) Socio-economic characteristics of the respondents

Descriptive statistics such as means, percentages and frequency distribution will be used to describe the socio-economic features of the cattle marketers.

(ii) Cost and return to cattle marketing in the study area

Budgetary analysis was used to determine the cost and return to cattle marketing in the study area. The model to be used is specified below:

$$TR = \text{Output} \times \text{Unit price}$$

$$TC = TVC + TFC$$

$$GM = TR - TVC$$

$$NI = TR - TC = GM - TFC$$

Where:

TR = Total Revenue

GM = Gross Margin

NI = Net Income

TVC = Total Variable Cost in naira

TFC= Total Fixed Cost

TC = Total Cost. The result of the budgetary analysis was used to obtain the following ratios.

Benefit-Cost Ratio (BCR): TR/TMC .

Profitability Index or Return on Sale = NI/TR

Rate of Returns on Investment (%) $RRI = (NI/TMC) \times 100$

OR = Operating Expense Ratio = TVC/TR

RRVC = Rate of Return on Variable Cost = $(TR/TVC) \times 100$

Marketing Efficiency refers to maximization of the ratio of output in marketing. This study adopted Sambe *et al.* (2016) technique in marketing efficiency. This is represented as:

$$ME = \frac{TR}{TMC} \times 100$$

Where:

ME = Marketing efficiency

TR = Total Revenue

TMC = Total Marketing Cost

2.4. Effect of Cooperative on Returns to Cattle Marketing in the Study Area

Linear regression analysis was employed to analyze the effect of cooperative on returns to cattle marketing in the study area. The form of the multiple regression analysis is explicitly expressed as:

$$Y = b_0 + b_1X_1 + \dots + b_nX_n + e$$

Where:

Y; the dependent variable = Net income

b_0 ; the intercept,

$X_1 - X_n$; the independent variables,

$b_1 - b_n$; the regression parameters, and

e; the random disturbance or error term.

X_1 = Sex (Female =1; 0 otherwise)

X_2 = Age (years)

X_3 = Marital Status (Married = 1; 0 otherwise)

X_4 = Household Size (Number)

X_5 = Formal Education (years)

X_6 = Membership of Associations (yes = 1; 0 otherwise)

X_7 = Amount of Loan borrowed (Number)

3. Results and Discussion

Table 1. Socio-Economic Characteristics of Respondents

Variables	Frequency	Percentage	Mean
Age (years)			
≤ 30	5	10.6	45 years
31 – 40	5	10.6	
41 – 50	27	57.4	
51 – 60	10	21.3	
Sex			
Male	47	100.0	
Female	0	0.0	
Marital Status			
Single	5	10.6	
Married	42	89.4	

Variables	Frequency	Percentage	Mean
House hold Size (persons)			
1 – 4	16	34.0	6
5 – 8	25	53.2	
> 8	6	12.8	
Educational Level			
No formal Education	5	10.6	16
Secondary Education	37	78.8	
Tertiary Education	5	10.6	
Marketing Experience			
1 – 10	11	23.4	16
11 – 20	24	51.1	
21 – 30	12	25.5	
Membership of Marketing Association			
Yes	42	89.4	16
No	5	10.6	
TOTAL	47	100	

Source: Field Survey, 2020

In marketing studies, the age of the respondents is an important factor as it may impinge on the level of efficiency of individual market participants. It is logical to think that an individual's performance efficiency or productivity declines with increasing age (Mafimisebi *et al.*, 2014). Consequently, as shown Table 1, majority of the respondents, constituting about 68.0% fall within the active age range of 31-50 years, while only about 21.3% were above 50 years. The average age of the respondents in the study area was 45 years. This indicates that, majority of the respondents are within their active and productive ages hence can invest or afford new practice/idea. These people are also capable of managing risks associated with new idea or practice than older people who are less active.

The importance of sex of the respondents in a marketing study cannot be over-emphasized as it reveals gender dominance in the market for a commodity. The sex distribution revealed that all respondents were male (100%); no female. This showed that the male sex dominated cattle marketing activities in the study area. This is however not surprising considering the rigorous work involved in cattle marketing and the resultant stress to market participants. Thus, only active persons who are physically strong and are able to cope with the operations in cattle marketing will dare to take part in the venture. This study is in agreement with the study of Girei *et al.* (2014) who reported that, the non-participation of the female gender in cattle marketing. Though, the female gender might own cattle but would hire the services of the male gender to transact the business on their behalf.

The marital status of a person is expected to determine the degree of responsibility of that person in the society and the manner in which he or she will allocate scarce

resources at his or her disposal. In marketing studies, distribution of respondents by marital status is very important as it gives an idea of a marketing participant's extent of devotion to the marketing process and the likely effect of this on proceeds from the business. Data presented in Table 1 revealed that most (89.4%) of the marketers was married while only a very minute proportion (10.6%) was single. Since a majority of the respondents was married people that have social obligations to cater for at the household front, they are expected to take cattle marketing activities very seriously in order to be able to raise the income required to meet their financial obligations.

Household size is an important socio-economic variable that determines availability of family labour supply. It is reasonable to think that the larger the number of household members, the more the social commitments of the working adults who have the responsibility of providing the needs of the household. The results revealed that, about 53.2% of the respondents fall within the family size range of 5 - 8 persons, while 34.0% of the respondents have family size that ranges between 1 - 4 persons. Hence the average household size found in the study area was 6 persons. This finding agrees with the outcome of the study by Adegbite *et al.* (2007) who established that household size is an important factor in any rural development intervention.

It is widely believed that formal education confers a wider range of opportunities and advantages on people which can enhance success in life. This is because formal education is seen as capable to liberate a person from ignorance, harmful practices and poverty. The finding revealed that about 89.4% of the respondents had formal education. It is expected that higher levels of educational attainment by a market participant may lead to better understanding of the market dynamics, use of sound business principles and astute business decisions which may translate to better profit. This variably should have effect on the marketing activities of the respondents and consequently, on the generation of income in their marketing investment.

The result revealed that majority (51.1%) of the respondents had cattle marketing experience ranging from 11-20 years, and 23.4% had between 1-10 years' experience. This implies that majority of the respondents have many years of cattle marketing experience. The combination of cattle marketing experience with the ability to manage resources efficiently is expected to translate to higher returns for cattle marketing in the study area. The more the marketers' experience the more their abilities to manage general and specific factors which affect the cattle business and other household activities.

The distribution of respondents based on membership of cattle marketing association, 89.4% of respondents were members while only 10.6% of respondents reported that they were not members. This shows that a large percentage of cattle marketers belong to one form of association or the other. According to Baba (2017),

association assists their members in production, and thus would be able to access information and markets that would otherwise not be available to them.

3.1. Cost and Return to Cattle Marketing in the Study Area

Costs of cattle marketing were considered as; variable and fixed costs, while returns were obtained from the sales of the animals. Also, profit and/or lost were determined from the differences between the total revenue and the total costs incurred in marketing. However, the costs and returns analysis used was to assess the marketing performance and as well as profitability of the enterprise. The marketing cost was conceptualised as the difference between the amount paid by the ultimate consumers and the amount received by the producer (Adejobi, 2005).

As shown in Table 2, the analysis of the result showed that the total revenue for cattle marketing was ₦1,297,430.56 while the total marketing cost was ₦1,071,391.84 representing 60.36% of the total revenue. Expenditures on animal purchase amounting to 93.76% of the total marketing cost was the highest cost followed by transportation (2.89%) and loading and offloading fees (2.73%). This signifies that marketing of cattle is a profitable business in Ogun State, Nigeria.

The marketing efficiency index of the cattle marketers was 1.21%. This value is well above 100%, implying that the revenue generated from cattle by the marketers is sufficient to offset all costs with reasonable proportion as profit margin. This indicates a moderate return to investment outlay. However, any enterprise having a moderate return to investment outlay is considered successful in terms of performance (Saleh *et al.*, 2015). The cattle marketing enterprise in the study area is therefore profitable, and by extension efficient on that account.

Table 2. Profitability Analysis of Cattle Marketing in the Study Area

Variable	Average (₦)	% of Total Cost
Total Revenue (TR)	1,297,430.56	
Variable Cost		
Supply cost of animals	1,004,583.33	93.76
Feeds	1,489.36	0.14
Transport	31,010.64	2.89
Veterinary cost	329.79	0.03
Loading and unloading fees	29,255.32	2.73
Total Variable Cost (TVC)	1,066,668.44	99.56
Total Fixed Cost (TFC)	4,723.40	0.44
Total Marketing Cost (TMC = TVC+TFC)	1,071,391.84	100.00
Gross Margin (GM=TR-TVC)	230,762.12	
Net Income (NI=TR-TMC)	226,038.78	

Profitability Index (PI = NI/TR)	0.17
Rate of Returns on Investment (RRI = NI/TMC)	0.21
Operating Expense Ratio (OR = TVC/TR)	0.82
Marketing Efficiency (ME = TR/TMC*100)	1.21

Source: Computed From Field Survey, 2020

3.2. Effects of Cooperative on Returns to Cattle Marketing in the Study Area

The factors affecting the net income of cattle marketers in the study area were analyzed in Table 3. The regression model the F-ratio was significant at 1% showing the overall significance of the result. The Adjusted R² was 0.759 which implies that about 75.9% of the variation in the net income was explained by the explanatory variables. From the regression equation, four variables, age, marital status, years of formal education and amount of loan borrowed were the significant variables influencing the net income of the marketers. The marital status, year of formal education and amount of loan borrowed by the marketers had a direct relationship on the net income meaning that any increase in these variables will increase their net income. Age was negatively related to the net income. This showed that the longer the years of the marketers, the lower the turnover.

Table 3. Regression Result of Factors Influencing the Net Income

Variables	Coefficients	T-value
(Constant)		17.166
Age	-1.370***	-18.893
Marital status	0.862***	17.803
Household size	-0.175	-0.583
Years of formal education	0.919***	8.506
Membership of cattle Marketing Association	-0.151	-0.480
Amount of loan borrowed	0.503***	10.298
R Square	0.759	
Adjusted R Square	0.723	
F value	70.525***	

*** Significant at 1%,

Source: Computed From Field Survey, 2020

3.3. Problem Encountered in Cattle Marketing

Major constraints in cattle marketing in the study area are show in figure 2. The finding reveals that price fluctuation and high cost of transportation was indicated by all (100.0%) of the respondents as a major problem. High cost of transportation makes it difficult for marketers to meet up with market days some times. The only

means of transportation available are trekking and trucks. Other constraints include, need selling pens (31.9%), poor body condition (27.7%), theft (21.3%), not economical transportation due to small quantity of produce (10.6%), inadequate feed and water (10.6%). This agrees with study by Okewu and Iheanacho (2015), which reveals that inadequate market information, credit, market facilities, high cost of acquisition, transportation, medication and feeding, as well as the unethical charges and levies by crook officials, are the major marketing constraints in cattle marketing. This implies that high cost of transportation was the major problem facing the cattle marketers in the study area.

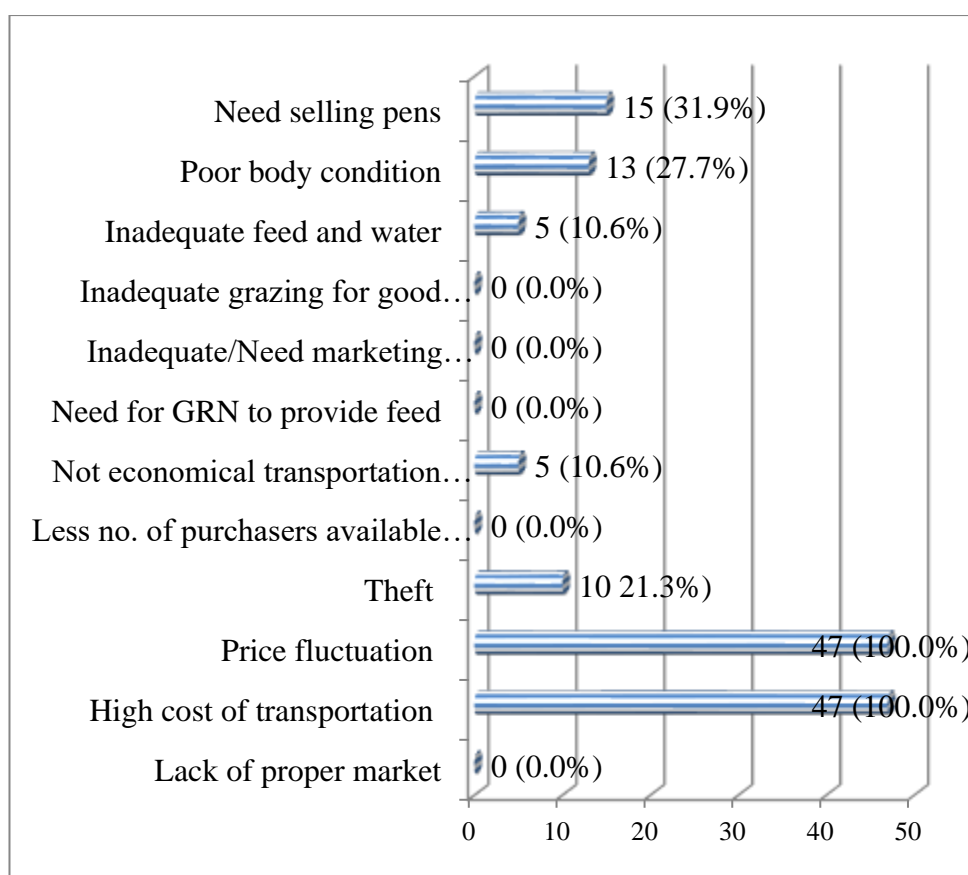


Figure 2. Major Constraints in Cattle Marketing

4. Conclusion

Livestock production is the primary financial resource for most farmers in Nigeria. Efficient marketing system is a necessary prerequisite for the consolidation of the growth and development of cattle production industry. This study examined the effect of cooperative society on the cattle rearing and marketing in Ogun State, Nigeria. The conclusions of the study are that the cattle marketers were mainly males who are still in their prime, married and literate. Cost of purchase constituted the main cost of operation. Based on findings from the study, marketing of cattle is a thriving enterprise. In terms of profitability, marketing of cattle was highly profitable in the study area with returns that could comfortably offset the cost of capital, with high marketing efficiency. The net income was significantly influenced by age, marital status, years of formal education and amount of loan borrowed. In the context of the results obtained from this study cattle business are important sources of income to many households in Nigeria and the study area in particular. It is however experiencing major setbacks, for instance, price fluctuation and high cost of transportation.

5. Recommendations

Based on the findings and conclusion drawn from this study, the following recommendations were made to ensure the sustainability of cattle marketing in the study area.

- (i) Since majority of the respondents were of moderate age, youths should be encouraged to participate in marketing activities to expand the current marketing system and to address the challenges facing agriculture in term of food insecurity and revenue generation.
- (ii) Cattle-marketing is male-dominated. Therefore, there is need to encourage women to participate actively in the cattle market.
- (iii) A better means of transportation and construction of good access roads so as to reduce the amount involved in transit as well as high marketing charges should be provided.

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