



EFFECT OF BOKO HARAM INSURGENCY ON GOAT MARKETING IN BORNO
STATE, NIGERIA

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ABSTRACT

The study examined the effect of Boko Haram insurgency on goat marketing in Borno State, Nigeria. A Multi stage sampling technique was used in selecting 143 goat marketers. Data were collected using structured questionnaire and analyzed using descriptive statistics, marketing margin and regression analysis. The result reveal that 38.5% and 30.1% of the goat marketers were within the age brackets of 35-39 years and above 40 years, almost all (96.5%) of the goat marketers were male and Most (70.6%) of the goat marketers were married with majority (51.7%) having households between 2-3 persons and almost all (97.9%) and 42.9% of the goat marketers had Qur'anic and primary education respectively. The result further shows a total marketing cost of ₦2,140,550 with a gross margin of ₦761,450 before insurgency and net marketing income of ₦0.36 indicating that Goat marketing was a profitable venture before insurgency. similarly, a net marketing income of ₦0.01 during the insurgency. The findings also reveal that 42% and 28.7% of the goat marketers had a capital of ₦50,000-₦120,000 and ₦121,000-₦191,000 before insurgency while 44.1% of the goat marketers had a capital investment of ₦50,000-₦160,000 during insurgency. The major constraints in Goat marketing before and during insurgency were bank closure (72%), market closure (55.9%) and bomb explosion in public places (55.2%) which were ranked 1st, 2nd and 3rd respectively. It was concluded that, although goat marketing enterprise in the study area was profitable, the insurgency had negative effect on the goat marketing and there was greater profit before than during the insurgency. The study recommended that government must use all means to fight the insurgence to allow farmers go back to businesses, marketers should be encouraged to form cooperatives and financial assistance should be given to the marketers in order to boost their capital.

Keywords: Boko-Haram, Effect, Goat, Insurgency and Marketing

INTRODUCTION

The northern part of Nigeria has for years witnessed several violent clashes that have claimed lives and property worth billions of Naira (Akeem, 2010). Among all forms of violence in recent history of Nigeria, the Boko Haram (BH) insurgency activities have most severe impact. According to Powell and Abraham (2016) insurgency refers to a violent move by a person or group of persons to resist or oppose the enforcement of law or running of government or revolt against constituted authority of the state or of taking part in insurrection. Also, Kilcullen (2016), opined that insurgency is a struggle to control a contested political space, between a state or a group of states or occupying powers, and one or more popularly based non-state challengers.

Boko Haram is a Hausa word which literally means "Westernization Is Sacrilege". This group spontaneously transformed in 2015 to a formidable group called **Islamic State in West Africa (ISWA)** or **Islamic State's West African Province (ISWAP)**.

Due to the insurgency, large hectares of farmland were destroyed, markets were burnt down, emigration of people from affected area meant for cultivation of farmland, animal rearing as well as fishing were abandoned, the imposition of curfew for days meant the restriction of

business activities and the closing of international frontiers within the region limited cross border trade. Socioeconomic activities dropped drastically, as most of the regions were under the control of the insurgents, educational system was grounded with public schools burnt down. The health sector was not left out with primary health care centers burnt down and physicians recruited by the insurgents for their personal use. By 2016, conditions started to improve due to the change of Nigerian government which was able to tackle the Boko Haram menace head-on. However, 7 years of continuous attacks in the northern region has left so much damage. The goat marketing has been recognized as one of the quickest ways of increasing the animal protein supplies in the nation and make it affordable to most people and the most profitable enterprise is goat marketing. To bridge the demand-supply gap of goat marketing in the study area, there is need to adopt other sustainable means of marketing strategies.

Boko Haram's terrorist attacks have been particularly intense in Borno State which, since 2011. The Boko Haram insurgency in Borno State, Nigeria, has had profound and multifaceted effects on the goat marketing industry. Firstly, the conflict has disrupted the livestock supply chain, including goat marketing, due to widespread insecurity, community displacement, and economic instability. This disruption has led to challenges in pricing, production, and distribution of goats, impacting the livelihoods of goat farmers and traders. Additionally, the insurgency has created transportation constraints and increased risks for traders, affecting market accessibility.

The cost of Boko-haram insurgency on agricultural development in Borno State cannot be quantified. Commercial activities have been reduced because of the unprecedented attacks by the insurgents. Banks, markets and shops do not open regularly due to the fear of the coordinated attacks from Boko Haram. However, the operation of this insurgency in the northern region has reduced or affected the productivity of goat marketing within the region for the past 7 years there has been a continuous attack in the northern region which has led to the decline in the operation of goat marketing therefore reducing its level of production and rendering the area which was one of the major producer of livestock now struggling to contend with the top marketers.

There are many researches in food security, livestock production and marketing in relation to the Boko Haram insurgency activities in the north east, but not much were documented in the study area to show the effect of Boko Haram insurgency specifically on goat marketing. In view of the above, the study aimed at examine the effect of Boko Haram insurgency on goat marketing in Borno State, Nigeria. Specifically, the study intends to achieve the following objectives:

- i. describe the socio-economic characteristics of goat marketers in the study;
- ii. describe the effects of Boko Haram on goat marketing;
- iii. examine the profitability of goat marketing before and during the insurgency and
- iv. Identify the constraints faced by tomato farmers in accessing climate change information.

METHODOLOGY

The study Area

The study was conducted in Borno State, Nigeria. Borno State is located in the Northeastern Nigeria. It is situated between latitude 10.5°N and 13.5°N and longitude 11.5°E and 14.5°E. The State was bordered by Yobe State to the west, Gombe State to the southwest, and Adamawa State to the south while its eastern border forms part of the national border with Cameroon, its northern border forms part of the National border with Niger, and its Northeastern border forms all of the national border with Chad, being the only Nigerian state to border three foreign countries. It takes its name from the historic emirate of Borno, with the emirate's old capital of Maiduguri serving as the capital city of Borno State. The State was created

in 1976 when the former North-Eastern State was broken up. It originally included the area that is now Yobe State, which became a distinct state in 1991.

The study used multi-stage sampling technique for selecting the goat marketers for this research. The first stage involved purposive sampling of three LGAs; Bayo, Kwaya Kusar and Shani LGAs. These LGAs were selected because of safety and accessibility to the areas. The second stage involve purposive sampling of six (6) markets, out of the existing markets in the selected LGAs. These markets were selected because of large volume of goat marketers in the areas. Simple random sampling was used to select sample size using Yamane's formula for determining sample size. The third stage involve 143 marketers that were selected randomly with the aid of random number table from each of the selected markets. Hence the sample size for the study was 143 goat marketers. Data were collected using structured questionnaire and analyzed using descriptive statistics, marketing margin and regression analysis.

RESULT AND DISCUSSIONS

Age Distribution of the goat marketers

Age is also an important determinant of productivity (Oluwatayo *et al.*, 2008). The result from Table 1 reveals that 38.5% and 30.0% of the goat marketers were within the age brackets of 35-39 years and 40 years and above, while 17.5% and 14% of the goat marketers were within the ages of 25-29 years and 30-34 years. This implies that most of the goat marketers were within their active ages shows that goat marketing in the study area was carried out by energetic men. This is in agreement with Okoye *et al.* (2006) who, in their study, reported a predominant age range of 33-38 years.

Sex of the goat marketers

The sex is defined as the Masculine or Feminine nature of the respondents (Idowu, 2017). The respondent is classified either as male if he is a man or female if she is a woman. Table 1 shows that most (96.5%) of the goat marketers were male, only 3.5% of the goat marketers were female in the study area. This could be attributed to the cultural and religious background of the study area which hinders the participation of women in some certain activities especially outside their matrimonial homes in the study area. Similarly, this implied that male dominate the goat marketing in the study area which could be because of the energy needed to do this form of business.

Marital status goat marketers

This is a state of being married or not married. The result of marital status of the goat marketers as in Table 1 reveals that majority (70.6%) of the goat marketers were married, while 12.6%, 9.8% and 7% were single, divorced and widows respectively. This implies that majority of the goat marketers were married and had certain level of commitment which is also attributed to the cultural and religious beliefs which prescribes marriage to any capable adult in the study area. The result agreed with Onwuboughta and Ajani (2012) that most of the goat marketers were male in Rivers State.

Household size of the goat marketers

Is the number of persons living in the same house or apart but under the care of one household head (Oluwafemi *et al.*, 2015)? The result from Table 1 further shows that 51.7% of the goat marketers had a household size of 2-3 persons, while 37.8%, 14.3% and 7.2% had household size of 4-5, 5-6 and above 7 persons in the study area respectively. This implies that most of the goat marketers had relatively small household size which could be attributed to the negative impact

of insurgency leading to people living in IDPs camp with less access to food, medication and other basic social needs in the study area.

Table 1: Distribution of Goat Marketers According to Age, Sex, Marital Status and Household size (n=143)

Characteristics	Frequency	Percentage
Age		
25-29	25	17.5
30-34	20	14.0
35-39	55	38.5
40 and Above	43	30.0
Sex		
Male	138	96.5
Female	5	3.5
Marital status		
Married	101	70.6
Single	18	12.6
Divorced	14	9.8
Separated	10	7.0
Household size		
2-3	74	51.7
4-5	54	37.8
5-6	10	14.3
7 and above	5	7.2

Source: Field Survey (2023)

Level of education of the goat marketers

The relevance of the literacy level of farmers to marketing and marketing efficiency has been documented by Wilcox *et al.* (2015). The educational attainment of a marketer raises his productivity and increases his ability to understand and evaluate market information on new techniques and processes. The result in Table 2 shows that almost half (47.6%) of the goat marketers had Qur'anic education and 20.9% have attended primary education. Goat marketers that have secondary and tertiary education constitutes 11.2% and 10.5% respectively. Only 9.8% have no formal education. This implies that all the goat marketers had attended certain levels of education in the study area and as such they were literate marketers. This finding corresponds with the findings of Onwuboughta and Ajani (2012); Ugbajah (2013), who observed high literacy levels in their separate studies.

Years of experience in Goat marketing of the respondents

Is the number of years a goat marketer spent as an independent marketer of goats in the study area? The distribution of the sampled goat marketers based on their experience in marketing (Table 2) reveal the years of goat marketers experience in the study area in which most (81.5%) of the goat marketers have been in Goat marketing for 11-15 years and majority (57.2%) have 6-10 years. The result also reveals that 42.9% have above 16 years and 22.9% have less than 5 years of experience in goat marketing. This implies that most of the goat marketers had experience in goat marketing as indicated by the long-term experience in the business in the study area. The more the years in goat marketing, the more the experience acquired, and the chances of boosting

marketing. The results disagreed with Wilcox *et al.* (2021) that goat marketers lacked sufficient experience and skills to manage information for better marketing.

Secondary occupation of the goat marketers

Secondary occupation refers to an additional job or source of income that an individual engages in alongside their primary or main occupation. This secondary occupation is typically pursued part-time or intermittently and may not generate as much income or require as much time and effort as the primary occupation. The result in Table 2 also shows that 33.6% and 32.2% of the goat marketers were into trading and farming as other occupations apart from goat marketing, while 21.7% and 12.6% of the goat marketers were civil servants and other occupation apart from goat marketing in the study area. This implies that the goat marketers had other occupations which help to increase their levels of income in the study area. Goat are a key asset in mitigating risk, especially in pastoral areas.

Table 2: Distribution of Goat Marketers According to Other Socio-economic Characteristics

Characteristics (n =143)	Frequency	Percentage
Educational level		
Primary	30	20.9
Secondary	16	11.2
Tertiary	15	10.5
Qur'anic education	68	47.6
No formal education	14	9.8
Goat marketing experience (years)		
< 5	16	22.9
6-10	40	57.2
11-15	57	81.5
16 and above	30	42.9
Secondary occupation		
Trading	46	32.2
Civil servant	31	21.7
Farming	48	33.6
Others	18	12.6

Source: Field Survey (2023)

Cost and Return of Goat Marketing Before and After Boko Haram Insurgency

Goat marketing cost and returns refer to the financial aspects of the goat farming business, encompassing the expenditures incurred in raising and marketing goats, as well as the revenue generated from selling these animals and their by-products (Smith *et al.*, 2020). Analyzing these costs and returns is essential for goat farmers and marketers as it enables them to assess the profitability and financial viability of their operations. It involves tracking expenses related to feed, healthcare, infrastructure, and labor, while also considering market prices, demand fluctuations, and other economic factors affecting the sale of goats.

Marketing margin analysis of Goat marketing before the Insurgency

Marketing margin analysis is a financial evaluation method that scrutinizes the difference between the cost of production or acquisition and the selling price of a product in the market. This analysis aims to dissect the components of this price differential, known as the marketing margin, and understand how it is distributed along the supply chain. The result from Table 3 shows that

the goat marketers incurred a variable cost of ₦469,000, ₦375,000, ₦421,000 and ₦183,000 on purchase of goats, transportation, feeds and medication respectively, while ₦28,550 was incurred on levies by goat marketers. The result further shows that goat marketers incurred a total variable cost of ₦1,448,000 and total fixed cost of ₦28,550 which gives rise to a total marketing cost of ₦1,476,550 in the study area. On the other hand, the goat marketers generated a revenue sum of ₦2,902,000 with a marketing margin of ₦761,450 before insurgency, a net marketing income of 0.5k shows that goat marketing was a profitable venture before insurgency. Individual goat marketer in the study area has a marketing margin of ₦5,324.82. This implies that a goat marketing, a one Naira investment yields a return of 0.5k, underscoring the profitability potential within this sector. This indicates a lesser profit in Rivers State as reported by Wilcox *et al.* (2021). The net return on investment value was 1.19, implying that the average goat marketer returned ₦1.19 for every ₦1 invested. By this result, goat marketing in the area was a profitable venture for the traders.

Table 3: Cost and Returns of Goat Marketing Before Insurgency

Items	Cost	Percentage
Variable Cost		
Purchase	469,000	31.8
Transportation	375,000	25.4
Feed	421,000	28.5
Medication	183,000	12.4
TVC	1,448,000	
Fixed Cost		
Levy	28,550	1.9
TFC	28,550	
TC	1,476,550	100
Revenue		
Sales	2,902,000	
GM	761,450	
NMI	0.5	
GM/Marketer	5,324.82	

Source: Field Survey (2023)

Gross margin of Goat marketing during the insurgency

The result from Table 4 shows the cost and returns in Goat marketing, the findings show that the goat marketers incurred a variable cost of ₦1,314,000, ₦1,015,000, ₦520,000, and ₦285,000 on purchase of goats, transportation, feeds and medication respectively, while ₦64,250 was incurred on levies by goat marketers. The result further shows that goat marketers incurred a total variable cost of ₦3,134,000 and total fixed cost of ₦64,250 which gives rise to a total marketing cost of ₦5,058,250 in the study area. Meanwhile the goat marketers generated a revenue sum of ₦5,105,000 with a gross margin of ₦46,750 during insurgency, each goat marketer in the study area has a marketing margin of ₦326.92 a net marketing income of ₦0.01 shows that Goat marketing was a profitable during insurgency. This implies that for every one naira invested in goat marketing there is a return of ₦0.01 which is an indication of a very low profit in the goat

marketing during the insurgency. This reveal that goat marketing is more profitable before than during the Boko Haram insurgency in the study area.

Table 4: Cost and Returns in Goat Marketing During Insurgency

Item	Cost	Percentage
Variables Cost		
Purchase	1,314,000	41.1
Transportation	1,015,000	31.7
Feed	520,000	16.3
Medication	285,000	8.9
TVC	3,134,000	
Fixed Cost		
Levy	64,250	2.0
TFC	64,250	
TC	3,198,250	100
REVENUE		
Sales	5,105,000	
GM	46,750	
NMI	0.01	
GM/person	326.92	

Source: Field Survey, (2023)

Capital investment distribution of the goat marketers

Capital refers to financial assets, funds, or resources that are invested in various forms to generate income or produce goods and services. Capital is a critical component of economic activity, as it is used to acquire assets, make investments, and support business operations (Nwankwo, 2018). The result from Table 5 reveal that 42% and 28.7% of the goat marketers had a capital investment of ₦50,000-₦120,000 and ₦121,000-₦191,000 before insurgency, while 16.8% and 12.6% of the goat marketers had a capital investment of ₦192,000-₦262,000 and ₦263,000 and above before the insurgency. This implies that the goat marketers had a very good capital investment for goat marketing in the study area before insurgency. The Table also shows that 44.1% of the goat marketers had a capital investment of ₦50,000-₦160,000 during insurgency, while 16.8%, 12.6%, 12.6% and 14% of the goat marketers had an investment capital of ₦272,000-382,000, ₦383,000-₦493,000, ₦494,000 or above and ₦161,000-₦271,000 during insurgency respectively. This implies that most of the goat marketers had a higher amount of capital investment during insurgency compared to before insurgency which could be attributed to the facts that during insurgency cost of Goat and transportation increases and that of fuel in the study area. The result in line with Abdallah (2016) that capital investment is a determinant factor of profit margin in marketing of livestock in Malaysia.

Table 5: Distribution of Goat Marketers According to Capital Investment (n = 143)

Capital investment before insurgency (₦)	Frequency	Percentage
50,000-160,000	60	42.0
161,000-271,000	41	28.7
272,000-382,000	24	16.8
383,000-493,000	18	12.6
494,000 and Above		
Capital investment during insurgency (₦)	63	44.1
50,000-120,000	20	14.0
121,000-191,000	24	16.8
192,000-262,000	18	12.6
263,000 and Above	18	12.6

Source: Field Survey, (2023)

Number of goats bought and sold by the goat marketers

The number of goats bought and sold by goat marketers represents a pivotal aspect of their trade and business operations. It reflects the volume and scale of their activities within the goat market. The result from Table 6 point out that 44.8% and 35.75 of the goat marketers bought and sold 6-10 goats and 1-5 goats per week before insurgency, while 16.8% and 2.8% of the goat marketers bought and sold 11-15 goats and above 16 goats per week before insurgency in the study area. On the other hand, the result reveals that majority (60.1%) of the goat marketers bought and sold 6-10 goats per week before insurgency, while 28%, 10.5% and 1.4% bought and sold 11-15 goats, 1-5 goats and above 16 goats during insurgency respectively. This implies that goat marketers bought and sold a greater number of goats before insurgency compared to the smaller number of goats they bought and sold during insurgency. According to the National Livestock Project Division (NLPD) as cited by Abidde (2014), the supply of goat and its products has witnessed a decline while its demand has been increasing with the result being a shortfall in the supply. Owing to the considerable spatial separation of production area from consumption area and other ancillary factors, there is high handling cost especially in relation to goat transportation. Marketing, therefore, encompasses all business activities associated with the transfer of a product from the producers to the consumers (Cook, 2018).

Table 6: Distribution of Goat Marketers According to Number of Goat Bought and Sold

Variable (n = 143)	Frequency	Percentage
Number of Goats bought and sold per week before insurgency		
1-5	51	35.7
6-10	64	44.8
11-15	24	16.8
16 and above	4	2.8
Number of Goats bought and sold per week during insurgency		
1-5	15	10.5
6-10	86	60.1
11-15	40	28.0
16 and above	2	1.4

Source: Field Survey, (2023)

Effect of Boko Haram Insurgency on Goat Marketing

The result from Table 7 shows the effect of the insurgency on goat marketing, the finding shows that book haram insurgent had effects on free flow of information to buyers, negative impact and poor turnout of solders were the major effect of book haram insurgent on goat marketing and were ranked 1st, 2nd and 3rd respectively. While poor turn over, inadequate flow of information to solders, turn out of buyers and cost of goats at purchase were ranked 4th, 5th, 6th and 7th respectively. This implies that Boko Haram insurgency had great negative effect on goat marketing in the study area as it affects both buyers, solders and prices of the goats in the study area. Goat marketing contributes about 12.7% to agricultural gross domestic production Nigeria (Abayomi, 2017) and contributes about ₦135.4 billion to GDP. The abattoir in Maiduguri that used to slaughter about hundreds of cows and goats' meat suddenly shut itself down due to a bomb explosion. Boko Haram has ruined agricultural business in the northern part of Nigeria, and a stable farming activity can survive only in a peaceful and stable environment (Okojie, 2019).

Table 7: Effect of Boko Haram Insurgency on Goat Marketing

Effects	Percentage*	Rank
Affects free flow of market information of buyers	100.0	1 st
Had negative effects on goat marketing	98.6	2 nd
Affects turnout of sellers	95.1	3 rd
Insurgency affects turnover	89.5	4 th
Affects free flow of market information to solders	87.4	5 th
Affects turnout of buyers	84.6	6 th
Affects average cost of goats at purchase	78.3	7 th

Source: Field Survey, (2023)

*** = Multiple response**

Constraints to Goat Marketing as a Result of Boko Haram insurgency

Constraints to goat marketing resulting from the Boko Haram insurgency in northeastern Nigeria have significantly disrupted the goat marketing industry. The result from Table 8 reveal that majority (55.9%) were constraints by market closure by the government during the insurgency followed by immobility (25.0%). Road banalization and frequent security check points were also part of the constraints to goat marketing during the insurgency as indicated by 7.7% and 11.2% respectively. Destruction of market structures (14.7%) and frequent check points in the market (18.9%) were also found to be constraint of paramount important in the study area. The result also depicts that majority (72%) of the goat marketers indicated were constraints by bank closure followed by loss of funds (13.3%), fear from money lenders (7.0%) and higher risk (7.7%).

Similarly, more than half (55.2%) of the goat marketers were constraint by bomb explosions in public. A reasonable proportion (34.3%) indicated the fear of the insurgency attack followed 10.5% indicated to be constraints by curfew which prevent them from going to their various markets (Kilcullen, 2016). in his view on the negative impact of Boko Haram insurgency on the economy opined that “there can be no real progress made in any country that is suffering from insurgency” Dabugat (2018), assert that Boko Haram insurgency has not only led to closure or abandonment of peoples business activities within the affected region but also led to immigration of people from the affected region as well as led to reduction of patronage of products from northern region because of rumour that Boko Haram strategists are planning to send poisonous products to other parts of the country. New security measures have been adopted by the state to reduce the impact of Boko Haram's insurgence in the north. An imposed curfew has shortened business hours in some affected areas. Others have increased the use of checkpoints and

made everyday movement extremely difficult. Maiduguri, the capital of Borno state had witnessed multiples of bombing explosion making the town very insecure for farmers and other businesses. Major markets in the town have become ghosts' area due to insurgency.

Table 8: Distribution of the Goat marketers According to Constraints in Goat Marketing Due to the Insurgency (n=143)

Variables	Frequency	Percentage
Transportation constraints		
Road vandalization	11	7.7
In-mobility	36	25.2
Market closure by the government	80	55.9
Frequent security check points	16	11.2
Market constraints due to insurgency		
Market vandalization	21	14.7
Frequent y check point	27	18.9
Constraints to credit access due to insurgency		
Bank closure	103	72.0
Loss of funds	19	13.3
Fear from money lenders	10	7.0
High risk in the marketing system during insurgency	11	7.7
Constraints of fear to insecurity due to insurgency		
Curfew	15	10.5
Bomb explosion in public places	79	55.2
Boko haram attacks	49	34.3

Source: Field Survey (2023)

CONCLUSION AND RECOMMENDATIONS

It was concluded that, although goat marketing enterprise in the study area was profitable, the insurgency had negative effect on the goat marketing and there was greater profit before than during the insurgency. Therefore, the study recommended as follows;

- The goat marketers should be educated and encouraged to organizing themselves into co-operatives, and pool their resources to get a vehicle that can be used to reduce the problem of high transport costs, and pay for veterinary services to reduce losses from diseases. This way, they can increase their profit margins.
- Financial assistance in any form should be given to the marketers who have suffered insurgency attack and are back at home in order to boost their productivity and consequently to improve their food production levels.
- The government must use all means to fight this terrorist to allow farmers go back to business in order to boost the Gross Domestic Product (GDP) of the country.
- Increased partnership between security agencies and residents of the study area through ensuring that community policing is brought to the grass root.

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