



## FACTORS INFLUENCING PROFITABILITY OF MARKETING MALL RUMINANTS IN KWARA STATE, NIGERIA

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### ABSTRACT

The study examined factors influencing profitability of marketing small ruminants in Kwara state, Nigeria. One hundred and sixty-nine respondents were randomly selected within the states and data were collected with the aid of a well-structured questionnaire. The results from the study showed that majority (77.51%) of the respondents were male while females constituted (22.49%). The results also revealed that substantial proportion (40.24%) of the respondents were within the age brackets of 51–60 years with a mean age of 49 years. Household size averaged five members, with 70.41% of respondents having 4–6 persons per household. Educational attainment was moderately high, with 45.56% having secondary education. substantial proportion (44.97%) of the respondents had over 15 years of marketing experience. Age ( $p<0.05$ ), household size ( $p<0.05$ ), role in the market ( $p<0.05$ ), use of social media ( $p<0.05$ ), distance to market ( $p<0.01$ ), and access to veterinary services ( $p<0.05$ ) were factors that significantly influenced profitability of small ruminants. Opportunities for growth were driven by youth involvement (4.50), availability of veterinary extension services (3.86), increasing demand (3.70), and digital marketing platforms (3.50), while challenges such as high transportation costs (3.95), animal theft/insecurity (3.87), high feed costs (3.80), seasonal supply fluctuations (3.61), and price volatility constrained market profitability (3.57). Overall, the findings recommend that operational constraints be addressed while existing opportunities should be effectively leveraged to improve profitability. Policy interventions targeting infrastructure development, security, access to credit, and market information would enhance the profitability of small ruminant marketing in the study area.

**Keywords:** Small-ruminant, Marketing, Profitability, Opportunity

### INTRODUCTION

Small ruminants, particularly sheep and goats, play a vital role in the livelihoods of rural and urban households in Nigeria. They serve as a significant source of income, meat, milk, hides, and social security, particularly in Kwara State, where livestock farming is a key component of the agricultural economy (Bello *et al.*, 2023). The increasing demand for small ruminants in domestic and international markets presents opportunities for farmers and traders. However, despite their economic significance, small ruminant marketing remains constrained by factors such as inadequate infrastructure, price volatility, and market inefficiencies (Ojo *et al.*, 2023). Effective marketing of small ruminants is crucial for enhancing the profitability and sustainability of livestock farming. Market structure, conduct, and performance (SCP) significantly influence the economic returns for farmers and traders (Adeoye & Yusuf, 2022). Studies have shown that the presence of intermediaries, lack of market information, and poor transportation systems limit the efficiency of small ruminant markets in Nigeria (Yusuf & Ibrahim, 2024). Addressing these challenges is necessary to improve market competitiveness and ensure equitable income distribution among stakeholders.

The marketing system for small ruminants in Kwara State is largely informal, with limited government regulation and standardization. This informality often leads to price fluctuations, information asymmetry, and exploitative practices by middlemen (Adesina *et al.*, 2023). Furthermore, the absence of organized market structures and inadequate storage facilities exacerbates post-production losses and reduces the bargaining power of farmers. To develop a more efficient and profitable marketing system, there is a need for empirical studies that analyze the current market structure and identify areas for improvement.



Several studies have emphasized the need for policy interventions to support small ruminant marketing in Nigeria. Key recommendations include the establishment of cooperative societies, improvement of market infrastructure, and implementation of digital marketing platforms to enhance market access (Akintola & Oladimeji, 2024). Additionally, access to credit and extension services can help small-scale livestock farmers adopt better marketing strategies and improve their economic outcomes. Understanding these dynamics is crucial for policymakers and stakeholders seeking to enhance the profitability and efficiency of the small ruminant value chain.

Given the economic importance of small ruminant marketing in Kwara State, this study analyzes the market structure, conduct, and performance of small ruminant trade. By identifying key challenges and opportunities, the findings contribute to evidence-based policy recommendations for improving market efficiency and profitability. This study also serves as a valuable resource for researchers, farmers, traders and policy makers interested in enhancing livestock marketing systems in Nigeria.

## METHODOLOGY

### Study Area

The study was conducted in Kwara State whose capital is Ilorin. The State was created on May 27, 1967 along with 11 other states of the federation. Kwara State has a total land area of about 32,500km<sup>2</sup> which is about 3.5% of the country's total land area (923,768 km<sup>2</sup>) (Kwara State Government, 2006). Considering the geographical location, Kwara State is situated between Latitudes 7°45' and 9°30' North and Longitudes 2°30' and 6°35' East. It lies midway between the Northern and Southern parts of Nigeria. Kwara State shares boundaries with Osun, Oyo, Ondo, Kogi, Niger and Ekiti States as well as an international boundary with the Republic of Benin in the west. The average low and high temperature for the state is 33°C and 34.5°C respectively, the estimated population of the state is about 2.37 million, out of which farmers account for about 70%.

A multi-stage sampling procedure was used during the course of the research. The first stage involves purposive selection of Zone C out of the four ADP Zones. The selection was due to its perfect mix of accessibility, diverse markets and better infrastructural facilities. The second stage entails, purposive selection of one major ruminant market in each of the 5 LGAs in the zones. Consequently, Shao, Afon, Ipata, Mandate and oke-oyi were chosen from Moro, Asa, Ilorin-south, Ilorin west and Ilorin east respectively. There are 61, 59, 60, 65, and 50 small ruminant marketers in the chosen markets and 37, 32, 35, 40 and 25 marketers were randomly selected. Thus, the Yamane formula was used to determine the sample size at 95% level of confidence thus, a total of 169 contact marketers was used for the study.

Primary Data were collected through structured questionnaires, interviews, and focus group discussions from sampled respondents. Data covered market structure and conduct, marketing practices, costs, and challenges. A **5-point** Likert scale was used to measure the **perceived severity of challenges** and the **importance of opportunities**. Strongly Disagree (SD) = 1; Disagree (D) = 2; Agree (A) = 3; Moderately Agree (MA) = 4; Strongly Agree (SA) = 5

### Data Analysis Procedure

#### Descriptive statistics

Descriptive statistics, which comprise of percentage, mean and frequency of the data, were used to classify small ruminant marketers in the study area according to their socioeconomic status and demographics. It was also used to identify the challenges faced by small ruminant marketers in the study area.

#### Regression analysis

Multiple regression analysis was conducted to identify the factors influencing market profitability. The model took this form:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + \varepsilon$$

where: Y = **Profitability**

X<sub>1</sub> = **Use of social media**

X<sub>2</sub> = **Referral commission**



- X<sub>3</sub> = No of Sales Rep
- X<sub>4</sub> = **Marketing Cost**
- X<sub>5</sub> = **Market Distance to main town or city**
- X<sub>6</sub> = **Number of Buyers Contacted per Month**
- X<sub>7</sub> = **Market Experience**
- X<sub>8</sub> = **Access to Credit**
- ε = **Error Term**

**RESULTS AND DISCUSSION**

**Socio-economic Characteristics of Small Ruminant Marketers**

The socio-economic characteristics of the small ruminants’ farmers in the study area are presented in this section, giving an overview of the characteristics of the marketers studied. The table shows that 77.51% of the respondents were male, whereas only 22.49% were female. This meant that the marketing of small ruminants in Kwara State was male-dominated. This is consistent with the recent study that cultural specifics and limitations of gendered mobility are traditionally the factors that govern the livestock trading activities in northern and central Nigeria (Ojo & Baiyegunhi, 2021).

Youth in the age of 30 years or even less constituted only 8.88% of the respondents, whereas 21.30% fell within the age of 31-40 years. The highest proportion of 29.59 was contained in the 41-50 years range, with 40.24 being in the 51-60 years range with the average age being 49 years. This distribution showed that the trade was occupied by older and more experienced people. Studies have shown that the middle-aged and older adults are typically controlling livestock marketing since these individuals have well-established trading networks and negotiation power (Adams & Yusuf, 2020).

**Table 1:** Socio-economic Characteristics of Small Ruminant Marketers.

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Mean</b>
<b>Gender</b>			
Male	131	77.51	
Female	38	22.49	
<b>Age</b>			
≤ 30 years	15	8.88	49
31–40 years	36	21.30	
41–50 years	50	29.59	
51–60 years	68	40.24	
<b>Household size</b>			
≤ 3 persons	24	14.20	5
4–6 persons	119	70.41	
7–9 persons	26	15.38	
<b>Education level</b>			
No formal education	13	7.69	
Primary	31	18.34	
Secondary	77	45.56	
Tertiary	48	28.40	
<b>Years of experience group</b>			
≤ 5 years	16	9.47	17
6–10 years	46	27.22	
11–15 years	31	18.34	
> 15 years	76	44.97	
<b>Association membership</b>			
Yes	135	79.88	
No	34	20.12	

Field survey, 2025

The result further reveals that 14.20% had household size of 3 members or less, and the majority (70.41) has between 4-6 members. This average household size is 5 members, which is in line with rural



Nigerian households, where livestock trading usually helps to fulfil the significant household consumption demands (Muhammad *et al.*, 2019). Furthermore, a large share of 7.69% of the respondents had no formal education, 18.34% with primary education, and a large share of 45.56 % with secondary education.

Moreover, 28.40% had tertiary education. This trend reflected the fact that the majority of traders were educated, which contributes to the fact that education helps to improve the capacity of traders to process information, integrate digital marketing platforms, and negotiate improved market conditions (Adenegan & Adeoye, 2022). About 9.47% of the respondents had less than 5 years' experience and 27.22% had between 6 and 10 years. On the same note, 18.34% had 11-15 years, and the highest percentage of 44.97% had over 15 years. The average years of experience is 17 years. This suggest that the trade was concentrated among long-term players, which is evidence that the efficiency of livestock marketing is correlated with the experience and the market links accumulated (Nwafor & Okoye, 2021).

About 80% of the respondents had been members of livestock marketing associations, and 20.12% were not. This large rate of membership implied that the institutions in the market were significant in sharing information, stabilizing prices and in conflict management. Other related studies revealed that trader associations lower the transaction costs along with raising the bargaining power (Ogundari & Akinbogun, 2023). In addition, 88.17 % of the respondents had access to veterinary services, and 11.83 % had no access. This level of uptake meant that the market climate enabled businesspeople to keep healthy animals thus reducing chances of deaths. This is in line with the study by Tijani and Adebowale 2023 which reveals that profitability of small ruminant enterprises is achieved through support of veterinary extension.

#### **Factors Influencing Marketing Profitability**

Table 2 show factors influencing marketing profitability. It reveals that the model statistics ( $F = 6.14, p < 0.001$ ) included variables jointly explained 27.99% of variations in marketing profitability, suggesting that unobserved factors such as seasonal price shocks, informal networks, and bargaining skills also play important roles. The age of the trader positively influenced gross margin ( $\beta = 4,207.67, p = 0.033$ ), suggesting that older traders tended to earn higher profits. This effect likely reflected accumulated experience, social networks, and negotiation skills, consistent with Okere & Nwafor (2022), who noted that maturity in age often translates into enhanced decision-making and better market timing.

The household size had a negative and significant impact on profitability ( $\beta = -56,285.18, p = 0.008$ ), implying that traders from larger households earned lower per-unit profits. This could be due to higher consumption and subsistence needs limiting capital available for reinvestment, a trend supported by Chilonda & Van Huylenbroeck (2020), who observed that larger households sometimes constrained smallholder market participation.



**Table 2: Factors Influencing Marketing Profitability**

Market profitability (Gross margin)	Coefficient	Std. Error	t-value	p-value
Gender	24,333.57	63,107.24	0.39	0.700
Age	4,207.665	1,952.953	2.15**	0.033
Household size	-56,285.18	20,976.79	-2.68**	0.008
Role in market	-331,437.1	132,058.0	-2.51**	0.013
Years of experience	2,053.643	2,858.816	0.72	0.474
Association membership	-75,057.21	68,077.30	-1.10	0.272
Use of social media	221,921.7	69,248.60	3.20**	0.002
Distance to market	5,085.804	1,283.901	3.96***	0.000
Access to loan	75,763.53	61,619.53	1.23	0.221
Access to veterinary services	306,123.0	82,633.75	3.70***	0.000
Constant	570,245.2	304,911.9	1.87*	0.063
F-stat = 6.14				
Prob > 0.000				
R-squared = 0.2799				
Adjusted R-squared = 0.2334				

Field survey, 2025

The result further shows that role in the market negatively affected gross margin ( $\beta = -331,437.10$ ,  $p = 0.013$ ), suggesting that traders who primarily acted as middlemen or intermediaries earned less than direct sellers. This finding corroborated the observations of Musa *et al.* (2021), who highlighted that middlemen often face squeezed margins due to multiple layers of transaction costs.

The use of social media positively and significantly influenced gross margin ( $\beta = 221,921.70$ ,  $p = 0.002$ ), indicating that traders who adopted digital platforms could access better market information and negotiate higher prices. This aligns with the findings of Oni & Yusuf (2021), who observed that digital marketing tools improved pricing efficiency and market linkages for small ruminant traders.

The result also shows that distance to market positively affected profitability ( $\beta = 5,085.80$ ,  $p = 0.000$ ), suggesting that traders willing to travel longer distances earned higher returns, likely due to access to less saturated markets. This trend was consistent with Ayanwale & Smatt (2021), who reported that mobility enhances market reach and profitability.

Finally, access to veterinary services positively and significantly influenced profitability ( $\beta = 306,123.00$ ,  $p = 0.000$ ), indicating that traders who ensured animal health achieved higher margins. This confirmed the findings by Chilonda & Van Huylbroeck (2020), who noted that investment in animal health reduces mortality and weight loss, enhancing revenue.

### **Challenges and Opportunities within the Small Ruminant Marketing System**

The table 3 shows that youth involvement in animal marketing was ranked highest among opportunities, with a mean of 4.50 and 60% of respondents agreeing or strongly agreeing. This finding indicates that young people were increasingly participating in small ruminant marketing, potentially introducing innovation, labor efficiency, and adoption of digital platforms. This trend corroborated Oni & Yusuf (2021), who reported that youth participation enhances market dynamism and adoption of modern marketing strategies.

It can also reveal that availability of veterinary extension services was the second most important opportunity, with a mean of 3.86 and 64% of respondents agreeing or strongly agreeing. Access to veterinary services was critical for ensuring animal health, reducing mortality, and improving marketable weight, consistent with Chilonda & Van Huylbroeck (2020).

Increasing demand for small ruminants ranked third ( $M = 3.70$ ), with 53.8% of respondents agreeing or strongly agreeing. This suggested that market expansion and rising consumer preference for small ruminant products provided a viable opportunity for traders, reflecting the findings of Adebayo *et al.* (2020) that demand growth is a major driver of profitability in Nigerian livestock markets.

**Table 3: Opportunities and Challenges within the Small Ruminant Marketing System**

Variables	Mean	Rank
<b>Opportunity</b>		
Access to credit facilities	2.83	7 <sup>th</sup>
Increasing demand for small ruminants	3.70	3 <sup>rd</sup>
Digital marketing platforms	3.46	5 <sup>th</sup>
Support from livestock associations	3.50	4 <sup>th</sup>
Youth involvement in animal marketing	4.50	1 <sup>st</sup>
Government policy support	3.16	6 <sup>th</sup>
Availability of veterinary extension services	3.86	2 <sup>nd</sup>
<b>Challenges</b>		
Poor market infrastructure	3.23	6 <sup>th</sup>
High transportation cost	3.95	1 <sup>st</sup>
Price fluctuation	3.57	5 <sup>th</sup>
Exploitative practices by middlemen	2.50	11 <sup>th</sup>
Inadequate market information	2.98	7 <sup>th</sup>
Animal theft or insecurity	3.87	2 <sup>nd</sup>
High cost of animal feed	3.80	3 <sup>rd</sup>
Poor access to veterinary services	2.59	10 <sup>th</sup>
Limited bargaining power	2.77	9 <sup>th</sup>
Market distance from residence	2.97	8 <sup>th</sup>
Seasonal oversupply or scarcity	3.61	4 <sup>th</sup>

Field survey, 2025

Digital marketing platforms (M= 3.46) and support from livestock associations (M = 3.50) were ranked fourth and fifth, respectively. About 53% of respondents agreed or strongly agreed that digital platforms facilitated wider market access, while 48.52% acknowledged the support from associations in terms of market linkages and collective bargaining. This aligned with Musa *et al.* (2021), who emphasized that both technology adoption and cooperative structures enhance trader competitiveness.

Government policy support and access to credit facilities were ranked lower, with means of 3.16 and 2.83, respectively. Only 32% of respondents agreed or strongly agreed that government policy supported small ruminant marketing, and 23.1% recognized access to credit as an opportunity. This reflected persistent policy and financial constraints highlighted by Lawal & Omotesho (2022).

Regarding challenges, the result revealed that high transportation cost was the most critical challenge (M = 3.95), with 61.5% of respondents agreeing or strongly agreeing. This suggested that poor infrastructure and high logistics costs significantly constrained profitability, consistent with Ayanwale & Smatt (2021).

Animal theft or insecurity (M = 3.87, 62.7% agreeing or strongly agreeing) and high cost of animal feed (M = 3.80, 50.9% agreeing or strongly agreeing) were ranked second and third, highlighting the impact of operational risks and input costs on small ruminant marketing. These challenges were similar to those reported by Chilonda & Van Huylbroeck (2020) and Okere & Nwafor (2022).

Seasonal oversupply or scarcity (M = 3.61) and price fluctuation (M = 3.57) were also significant challenges, indicating the effect of market volatility on traders' income. About 53.25% of respondents agreed that these factors constrained profitability.

Lower-ranked challenges include poor market infrastructure (M = 3.23), limited bargaining power (M = 2.77), inadequate market information (M = 2.98), market distance from residence (M = 2.97), poor access to veterinary services (M = 2.59), and exploitative practices by middlemen (M = 2.50). Although these factors were less frequently highlighted, they still represented structural and operational constraints within the marketing system, as noted by Musa *et al.* (2021).

Overall, the results indicated that while there were significant opportunities in small ruminant marketing, especially among the youth, persistent challenges such as high transportation costs, theft, input prices, and market volatility constrained profitability and growth.



## CONCLUSION AND RECOMMENDATION

The study concludes that small ruminant marketing in Kwara State is predominantly male-dominated, with middle-aged and older adults forming the majority of marketers. Respondents were moderately educated, experienced, and largely had access to veterinary services, suggesting capacity for adopting modern marketing practices. Key factors influencing profitability of marketing small ruminants in the study area include age, household size, role in the market, use of social media, distance to market, and access to veterinary services. While opportunities for growth were driven by youth involvement, availability of veterinary extension services, increasing demand, and digital marketing platforms, while challenges such as high transportation costs, animal theft/insecurity, high feed costs, seasonal supply fluctuations, and price volatility constrained market efficiency.

Overall, the findings observed that small ruminant marketing in Kwara State has the potential for sustainable growth if operational constraints identified are addressed and existing opportunities are fully leveraged. Policy interventions targeting infrastructure development, security, access to credit, and market information could enhance the efficiency and competitiveness of the sector.

Based on conclusions drawn, the following recommendations were made:

1. Government and policy makers should encourage youth and women participation in small ruminant marketing through targeted training, mentorship, and financial support, while enhancing digital literacy and skills of less experienced traders.
2. Government, Livestock Associations, and NGO should promote equitable market access by supporting small-scale traders with infrastructure, financial services, and reliable market information, while enforcing fair competition to reduce exploitation by dominant traders.
3. Government, Local Authorities, and Traders' Cooperatives should reduce logistics and operational costs by investing in transport infrastructure, shared market facilities, and training on cost management, value addition, and efficient handling, feeding, grading, and marketing strategies.

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