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Abstract: *The rural goat marketing system is done haphazardly. There are no standard measures to guide transaction nor is there a well-defined regulatory framework. The objective of this study was to examine the marketing channels and chains for goats in Benue State, Nigeria. Multi-stage sampling technique was adopted. Two zones (B and C) were purposively selected out of the three agricultural zones in the state on the basis of accessibility and relevance to the study. From each of the two zones, two Local Government Areas (L.G.As) were randomly selected bringing the total to four. 30 respondents were randomly and proportionately selected from each of the four markets. This brings the total number of respondents for the study to 120. This is done on the basis of market accessibility, sizes of the market, and the number of buyers and sellers of goats. Majority (97%) of the respondents marketed live goats and purchased their traded goats from either rural (31%) or unbans (60%) markets. A little (9%) of marketing took place at farm gates and three percent slaughtered goats prior to selling to the final consumers. This is as a result of existence of strong trade-association which has cleverly schemed out producers dealing directly with the final consumers. Evidence from the study indicates that structural and marketing constraints affects goat markets within the study. The study however, determined the market structure for goats. Provision of favorable and functional market regulating frame work that can eliminate or reduce to the barest minimum illegal fees or taxes charged along marketing channel for goats should be put in place. Governments at all levels should provide an enabling environment such as market facilities, and favorable market regulatory framework for profitable goat marketing agribusiness in the study area.*

Key words: *Goats, Channels and Chains, Marketing*

1. Introduction

Africa and India have the largest goat populations in the world (Ayoade, 2010, Prassad, 2010). Of the world 475 million goats, 95% are located in developing countries (Food and Agricultural Organization (FAO), 1984 and Oliver, Cloette, Sehoeman & Mullen 2005). Resources Inventory Management (1992) recorded the population of goats in Nigeria as: 2,677,152 pastoral, 23,287,589 rural and 1,023,981 urban. Majority of goats are kept in rural areas especially West African Dwarf breed (Ayoade, 2010).

Livestock sector is growing at well over seven percent per annum in Nigeria for the past 25 years (Amogu, 2010). This enormous growth rate is driven by soaring demand for meat and milk in Nigeria. The increasing demand for goat products is due to high level of urbanization and increase in restaurants butchers business. This tends to discourage improvement in production which leads to slow increases in demand. There is no reliable data on goat prices in Nigeria

(Amogu, 2010; Banda, 2011). The livestock market in Nigeria is, generally, unfettered as there is no intervention in fixing prices in the open market.

It is, basically, within marketing system that prices are generated, rewards are allocated, income and capital accumulation are determined. It is, therefore, very necessary to undertake research in developing countries that will provide adequate information on the efficiency and constraints in the marketing system on which effective policies and strategies can be based. Goat marketing in Nigeria is entirely into the hands of traditional middle men with little or no government participation or regulatory measures. It is, therefore, believed that livestock marketing in Nigeria is traditional with a strong cultural control (Ajala and Adesehiwa 2008). Specific leading roles played by efficient marketing system in economic development have been widely documented (Kriesberg, 1970 & Olayemi, 1972).

The indigenous marketing systems for livestock in developing countries are generally exploitative, collusive and economically inefficient (Mellor, 1970). The livestock, mostly, are sold to traders, middlemen or butchers at farm gate due to inadequate transportation and time constraints. Sometimes they are sold at nearby village markets where no rule and regulations are effective (Balkrishna & kalia, 2008). The middlemen in performing the role of marketing are being accused of earning higher profit in marketing system (Bryson, 1993; Pujo, 1996). This exerts a great influence on market channels, structure, margins and consequently on supply of most agricultural products, including goats (Iheanacho, 2004). An unfavourable marketing outcome discourages production through lower output prices and consumption through high prices (Iheanacho, 2004). The rural goat marketing system is done haphazardly. There are no standard measures to guide transaction nor is there a well-defined regulatory framework (Banda, Dzanja & Gondwe 2011). The objective of this study was to examine the marketing channels and chains for goats in Benue State, Nigeria.

2. Literature Review

2.1. Marketing Channels for Goats

Kolhs & Uhl (2009), defined marketing as the performance of all business activities involved in the flow of products from the point of initial production until it reaches the hand of the consumers. Market is said to exist whenever a transaction is done between a buyer and seller either by physical contact, letter writing and telephone, telex, internet or other means of communication (Olukosi, *et al* 2008). According to Kotler (2002), marketing refers to the social process by which individual and group obtained what they need and want through creating and exchanging products and values with others. Efficient marketing stimulates output and consumption which are essential elements of economic development (Marina, 1999).

Marketing channels describes the movement of a product or commodity from the site of production to the place of consumption. It may include transportation, handling and storage, ownership transfers, processing, and distribution. Marketing channels formally, are used set of interdependent organisations involved in the process of making a product or service available for use or consumption.

They are the sets of path ways, a product or service follows after production, culminating its purchase and used by final and users (Kotler, 2005; Kotler & Kellers 2006). Marketing channels are also called trade or distribution channels. These channels maybe short or long depending on kind and quality of the product marketed, available marketing services prevailing social and physical environment (Islam, 2001). Goat marketing channels in Nigeria is generally long with many middlemen. Marketing channels should services market and at the same time market. The most important functions performed by middlemen include information, ordering and financing. Promotion, negotiations, physical possession, payment, title and risk taking are other functions performed by middlemen (Kotler & Kellers 2006).

According to Amogu (2010), the distribution system for ruminant livestock in Nigeria is conditioned by the fact, that, most production activities take place in the northern states while there is a large consumer market in the southern states. There is, therefore, a large north-south trade in the business.

Livestock trade in West Africa is based on live animals (Williams, Spycher & Okike, 2006). The major value added activities is to facilitate transfer of animal from one location to another by market participants and players. In rural markets, this involves mostly trekking the trade goats from farm gate and collection market to urban markets by smaller traders with little or no capital.

Big livestock traders who have enough capital hire truck or lorry to transport the traded goats to either urban cities or cross boarder markets. This needs high capital investments and so creates a serious barrier of entry for smaller livestock marketing. The study on domestic and cross boarder livestock marketing in West Africa reviewed that marketing channels are simple and uncomplicated but varies from location to locations (Williams *et al*, 2006). There is absence of notable processor except butcher and suyamen in livestock marketing channels. Marketing channels include producers, primary and secondary traders (Mukasa *et al*, 2012).

Both primary and secondary traders buy in from the producers. Primary traders buy in small numbers daily and sell to secondary traders in local markets. Secondary traders buy from both producers and primary traders and transport to urban markets or terminal markets where they fetch high prices (Nwafor, 2004). Secondary traders play important roles in transporting livestock from the producers to the consumers (Mukasa *et al, 2012*).

2.2. Market Flows

Market flows from the producer gate to the terminal market which marks the end of market. There are regional differences in pathways goats take from the producer to the consumers (Gudahi, 1987).The principal players in goat marketing channels are, traditionally, middlemen who play broker, speculative and facilitative activities.

2.3. Marketing Chain

The marketing chain describes the succession of markets through which the products pass until they reach the final consumers. Marketing chain is an integral part of marketing channels (Olukosi *et al*, 2005; Lumdy *et al*, 2004).

Functions conducted in marketing chain have three things in common. Firstly, they use up scarce resources and they can be performed better through specialisation. They can be shifted among channel members (FAO, 2005). Marketing chain could be long or short depending on the product (Olukos *et al*, 2006). Long marketing chain implies that product changes hand many times before reaching the final consumers. The longer the chain, the higher the prize that will be paid by the consumers Also nature of the commodity and how far the consumers are from the point of initial production (Olukosi *et al*, 2005).

Marketing chain concerns with flow of commodity from producer to consumer that brings in to economic agents who perform supplementary functions with the aim of satisfying both producer and consumer (Islam *et al*, 2001). Marketing chain may connect one or more markets. Goat producers are the first link in the marketing chain. Goat producers raised the live goats to market weight and supply to the secondary agents.

2.4. Market Structure

Market structure is defined as those characteristics of the organisations of the market that seem to exercise strategic influence on the nature of competitions and pricing within the market (Bain, 1968).The characteristics usually stressed are the number and size distribution of terms in relation to the size of the market, the presence or absence of barriers to entry facing new entrants, physical or subjective and product differentiation. In the presence of structural defect, commodity market experience divergence prices and equilibrium prices which lead to poor a locative efficiency in the economy (Ayoola & Ayoade, 1993). In developing economies including Nigeria, markets are governed by structural factors which are capable of producing inefficient allocation of resources in absence of intervention program. The findings from the exploratory studies of livestock subsector in Nigeria, has shown that small number of goat reared in rural home stead reach the market for the purpose of income generation (Ayoola & Ayoade, 1991, Ayoola *et al,* 1991). This means that the market is relatively active. A high dispersion of seller concentration was observed which means that the affairs of livestock market are controlled by few people (Ayoola & Ayoade, 1993). Studies have shown that goat markets are unregulated with no standard in terms of quality and weight (Nwafor, 2004; Williams *et al*, 2006). Prices are not regulated for live goat rather they are based on physical inspection by the buyers and suppliers.

As a rule of thumb, for largest enterprises, concentration ratio of 50% or more is an indication of a strongly oligopolistic industry, 33-50% indicates a weak oligopoly and less than 33% indicates competitive industries (Kohls & Uhl, 1985). The problem associated with this index is the arbitrary selection of ratio (the number of term that is taken to compare the ratio). A more reliable method of measuring market structure is the Gini coefficient. It is a standardized coefficient such that zero implies perfect equality in distribution, while coefficient of one means perfect inequality in earnings. In practice, the actual value of Gini coefficient lies between these two extremes. The closer the value of unity, the greater is the degree of inequality, and, therefore, the higher is the concentration. Higher market concentration signifies that a market is monopolistic in nature with few individuals controlling the market (Okereke & Anthino, 1988). The market structure for most categories of livestock in Nigeria is oligopolistic (Amogu, 2010).

Iheanacho & Ali (2010) in the study of goat market structure obtained a Gini coefficient of 0.877 which indicates high level of inequality in income of the marketers. This result is in contrast with the Gini coefficient of 0.104 which implies low level of inequality in income of goat marketers in a similar study conducted in Benue State of Nigeria (Ayoola & Ayoade, 1993).

Production is still largely in the hands of small producers. The marketing system is dominated by relative wholesalers or trade-association that controls the market supply and vital market information. These middle-men are said to be infirm control of price determination and entry into the trade. This results to distortion of market price. Studies recently have shown low correlation between producers and retail prices. As such, the traditional role of price in regulating market supply and demand is weakened. This collation needs to be prevented with respect to price, output and exit and entry (Ayoola & Ayoade, 1993).

2.5. Demand and Supply for live Goat and Products

It has been said that everyone in the world eats goat meat except American (Marion, 2013). The preference for goat meat in the United States is, however, rapidly increasing. Research findings have shown that demand and supply are inelastic and elastic respectively (Marion, 2013).

There is a steady consumption of goat meat by local consumers during special days such as holidays, festivals and social ceremonies. As the population increases so also does domestic consumption. Goat consumption also increases significantly around religious festivals such as Easter, Christmas and Ramadan.

With this inelastic demand, it is expected that the amount of goat meat consumed to remain about the same on per person or family basis and to increase proportionately as goat consuming population increases. This inelastic demand presents these marketing options to producers which include direct marketing sale at farmers market, on farm sales and restaurants trade as well as traditional market and co -operatives.

Ajuzie (2002) found that the supply of goat meat to be elastic. Marketers react to changes in price either price received for their goods or cost of marketing (Marion, 2013). Fallen sales prices or risen marketing cost puts marketers in a cost-price squeeze which will cause them to decrease supply. On the other hand, risen sales price or fallen market cost will cause traders to increase supply (Ajuzie, 2009).

Goat suppliers in the market can be grouped in to producers or livestock owners, traders or middlemen and co-operatives or agricultural projects. The sellers in the first category are usually both well-seasoned and very clever man or older boy who will be able to bargain prices.

The second category of sellers consists of young men and women who perform brokers or speculative activities. They have adequate market information and could operate in more than one market. They usually buy goats and resale them so as to raise income. The third category of goat sellers consists of individual or group who own herd and fattened them to market weight for reselling. This could be done by co-operative or government agricultural projects. Besides these, there exist large scale traders who service the urban market or sector. They may own truck for conveying the livestock and depend entirely on goat marketing as a means of livelihood.

There are three categories of goat buyers. The first category is the individual who buys goats for breeding, consumption or fattening, and resale. Secondly, restaurants and bar owners who serve goat meat to their customers. Finally, are the retailers or butchers who sell goat meat in kilogram to final consumers. Goats move into the marketing channel as traders livestock, frequently change hand several times prior to slaughter. Most live goat movement is on strictly cash basis only minimal *transactions* by cheque or on credit.

2.6. Theoretical Frame Work

Farm Budget Model: The farm budget as a tool of analysis is one of the oldest and simplest, used in farm management and production studies. It has been used in number of economic studies for analyzing the profitability of farm production practice. This method of analysis was used to achieve objective (iv) of the study. Different methods of budgeting exist. These methods can be, however, subdivided into two major categories namely total budgeting, and partial budgeting. A total budgeting is used when contemplating a complete reorganization of the entire farm business, while partial farm budget is used when the action intends to be implemented does not affect the whole farm. For example, introducing a new business or purchasing new equipment for the farm. The choice of any type of budgeting tool depends on the circumstance under which the farm business is taking place, goal achievement, objective and convenience. This study used partial budget as an analytical tool. It involves, basically, operations leading to estimate of total revenue and total cost for the same production period. The difference between two parameters is measure of profit for that period (Oluwole, 1970; Osifo & Anthonio, 1970; Olayemi & Oni, 1971; Adinya et al., 2008).The purpose of the model is to: identify the costs, sales, profitability per goat. The total revenue represents the value of the output from the farm (i.e. sales from goat trading). The total cost, on the other hand, is made up of the variables components. Variables costs also called specific costs vary directly with the level of market transactions.

Fixed cost known as overhead costs do not vary with the level of output and consists of cash expenses (on repairs and maintenance, interest on loan) etc and -cash adjustment like depreciation of farm tools and equipment. The computed costs, revenues and gross margin would be used to derive various measures of profitability in s goat marketing. Efficiency could be measured from a production function or profit function approach.

3. Methodology

3.1. Population, Sample Size and Sampling Technique

The population of the study comprised of all goat marketers in the selected Local Government Areas of Benue State, Nigeria. Multi-stage sampling technique was adopted. Two zones (B and C) were purposively selected out of the three agricultural zones in the state on the basis of accessibility and relevance to the study. From each of the two zones, two Local Government Areas (L.G.As) was randomly selected bringing the total to four. The L.G.As selected includes Ogbadibo, Otukpo, Makurdi and Gboko. From each L.G.A., one major livestock market: (Otukpa, Otukpo, Makurdi and Gboko) within predominantly goat rearing areas was selected. 30 respondents will be randomly and proportionately selected from each of the four markets. This brings the total number of respondents for the study to 120. This is done on the basis of market accessibility, sizes of the market, and the number of buyers and sellers of goats.

3.2. Validity and Reliability of Data Collection Instrument

The face and content validity of the questionnaire for the study were ascertained by pilot-testing and passing it through scholars in the College of Management Sciences and College of Agricultural economics and extension, University of Agriculture, Makurdi. Agreement unanimously among these experts on suitability of the questionnaire for assessing the research questions and specific objectives implies its content and face validity. This is done on the basis of expertise and previous experience of these scholars.

Split-Half Method was used to test the reliability of the data collection instrument. This is done by administering the questionnaire once to the same group of respondents, after which it is divided into two equal halves comprising even numbered and old numbered items. Each of the two equal halves will be scored separately. The two sets of scores will be them correlated to obtain the internal consistency of the data collection instrument using spearman correlation coefficient (rho). High correlation indicates reliability.

3.3. Data Collection

Structured questionnaire was administered to 120 goat marketers to collect primary data. Primary data were collected on socio-economic characteristics of goat marketers (age, sex, household size, goat marketing experience, educational level, marital status, occupation, goat marketing investment capital, and association membership), marketing channels, goat prices, sales, number of goats sold, marketing costs and marketing problems.

4. Results and Discussion

4.1. Marketing Channels and Chains for Goats

The information on marketing channels for goats in Benue State are presented in Table 1 and Figure 1. The analysis of Table 1 shows that 61% of the respondents sourced their marketed goats locally, within the State, and sold predominantly (above 39 %) native breed called West Africa Dwarf (WAD). Most (82%) transported goats to and fro the markets by road using pick-up van or truck. WAD can with stand harsh weather and tolerate a wide range of environmental conditions, unlike other breeds, besides been a native breed. It indicates, also, the presence of appreciable transport net-work in the study area. Few (23%) of the marketers sourced their traded goat from North-East and West, as well as closed States in North Central. This supplementation is done especially during festive periods when the demand for goat is high.

Majority (97%) of the respondents marketed live goats and purchased their traded goats from either rural (31%) or unbans (60%) markets. A little (9%) of marketing took place at farm gates and three percent slaughtered goats prior to selling to the final consumers. This is as a result of existence of strong trade-association which has cleverly schemed out producers dealing directly with the final consumers.

Most (92%) of respondents gave resale as the primary reason for purchasing goats. The majority (77%) were involved in buying and selling goats in the markets. The major market players are therefore, wholesalers and retailer, who sell to one another and directly to final consumers in small numbers. The goat marketers associations have also schemed out brokers, speculators, agents from the market.

Majority (54%) of the respondents purchased goats from rural markets. All (100%) respondents used body size, condition and conformation as eye-ball judging as criteria for pricing. This indicates the absence of unit of measurement in the goat markets studied. Cost of production was not considered when setting prices, due to absence of proper records which are useful in determining price.

Marketing channel for goats provides a systematic knowledge of the movement of goats from the producers to the consumers. The analysis of marketing channel for goats in Figure 1 indicates that the production was mostly in the hands of small- scale producers The goat producers sell in bulk to the few wholesalers located mostly in Otukpa, Otukpo, Makurdi and Gboko main goat markets. They can also sell directly to the retailers who approach them to buy in substantial numbers. Most of the wholesalers get their supplies from the rural markets. The retailers in both rural and urban markets also purchase from the wholesalers for bulk breaking and sell directly to the consumers. A very few butcher (three percent) of the respondents obtain supply from either rural or urban middlemen and sell dressed meat directly to the final consumers. Besides rural middlemen, final consumers sometimes buy directly from producers and urban middlemen closest to them. The marketing channels for goats are long, but, simple. This means that traded goats pass through many hands before getting to the final consumers resulting in high price (Williams, Spycher & Okike, 2006). The only value- added activity along the channels is transportation. There is absence of processors along the channel, except few butchers.

The distribution of goat marketers according to the number of goats purchased and sold per week is presented in Table 2. The analysis of Table 2 revealed that majority (71%) purchased and sold (81%) below 21 goats per week, which were considered as goat retailers. A few number of marketers purchased (29%) and sold (19%) above 21 goats per week were considered wholesalers. This implies that nearly all number of goats purchased were sold within one week.

Table 4 shows the distribution of respondents according to amount and sources of investment capital for goat marketing. The analysis of Table 4 revealed that the majority (69%) had investment income range below (₦200, 000) and most (89%) sourced capital personally.

This might account for majority (71%) of the marketers operating at retail level, because, personal saving may not be enough to expand the business. The remaining (29%) had investment capital range above (₦200, 000) sourced capital from lending agencies or both personal and loan. This means, that, the few wholesalers were the only ones who met unfavourable borrowing criteria set by lending institutions in the state. The grouping of the 120 respondents into 36 goat wholesalers and 84 retailers is on the basis of: the receiver of market volume, the provider of sales volume and amount of capital outlay. That is to say, 84 respondents sell directly to and obtained their sales volume the final consumers and considered retailers. While 36 of them sell majorly to and obtained their sales volume to other business marketers (Kotler & Keller, 2005).

The distribution of marketers according to the number of retailers and wholesalers in the four (4) livestock markets studied were presented in table 5. The analysis of table 5 showed that there were 85 retailers (70%) and 35 wholesalers (30%) in markets studied. There were more retailers in Otukpa (27), and Otukpo (21) than Makurdi (20) and Gboko (20) markets. The number of wholesalers is, however, more in Gboko (10), Makurdi (10) than that of Otukpa (3) and Otukpo (9) markets. This is, because, most of the livestock markets studied were urban (Gboko, Makurdi, and Otukpo), except Otukpa market which is rural. These few wholesalers could be big time goat marketers or retirees who engaged in goat marketing as business venture in the cities. They have strong financial base and can cater for the much needed capital in goat marketing which accounted for their domination.

Table 1: Information on Market Channels and Chains for Goats in Benue State, Nigeria

Sources of traded goat	Frequency	Percentage
Locally produced	73	61
North West/ East/	28	23
North West/ East//Central	19	16
Total	120	100
Breeds of goat marketed		
West African Dwarf (WAD)	47	39
Sahel/Mardi	05	04
Sahel/Mardi/WAD	68	57
Total	120	100
Mode of transportation		
Trekking (foot)	15	13
Lorry/Truck/Van (Road)	99	82
Rail	00	00
Water	06	05
Total	120	100
Forms of goat marketed		
Live Goat	117	97

Butchered pieces	03	03
Total	120	100
Types of goat market		
Farm gate	00	00
Rural market	37	31
Urban market	72	60
Farm Gate/Rural/Urban	11	09
Total	120	100
Reasons for buying goat		
Consumption	00	00
Resale	111	92
Breeding/Resale	006	05
Butchering	003	03
Total	120	100
Role in goat marketing		
Buying and Selling	92	77
Middlemen	06	05
Producer	22	18
Total	120	100
Origin of goats sold		
Farm gate	03	03
Rural market	65	54
Urban market	15	12
Farm Gate/Rural/Urban	37	31
Total	120	100
Criteria for pricing goat		
Body Size/Conformation/Condition	120	100
Cost of production	00	00
Total	120	100

Source: field survey 2014.

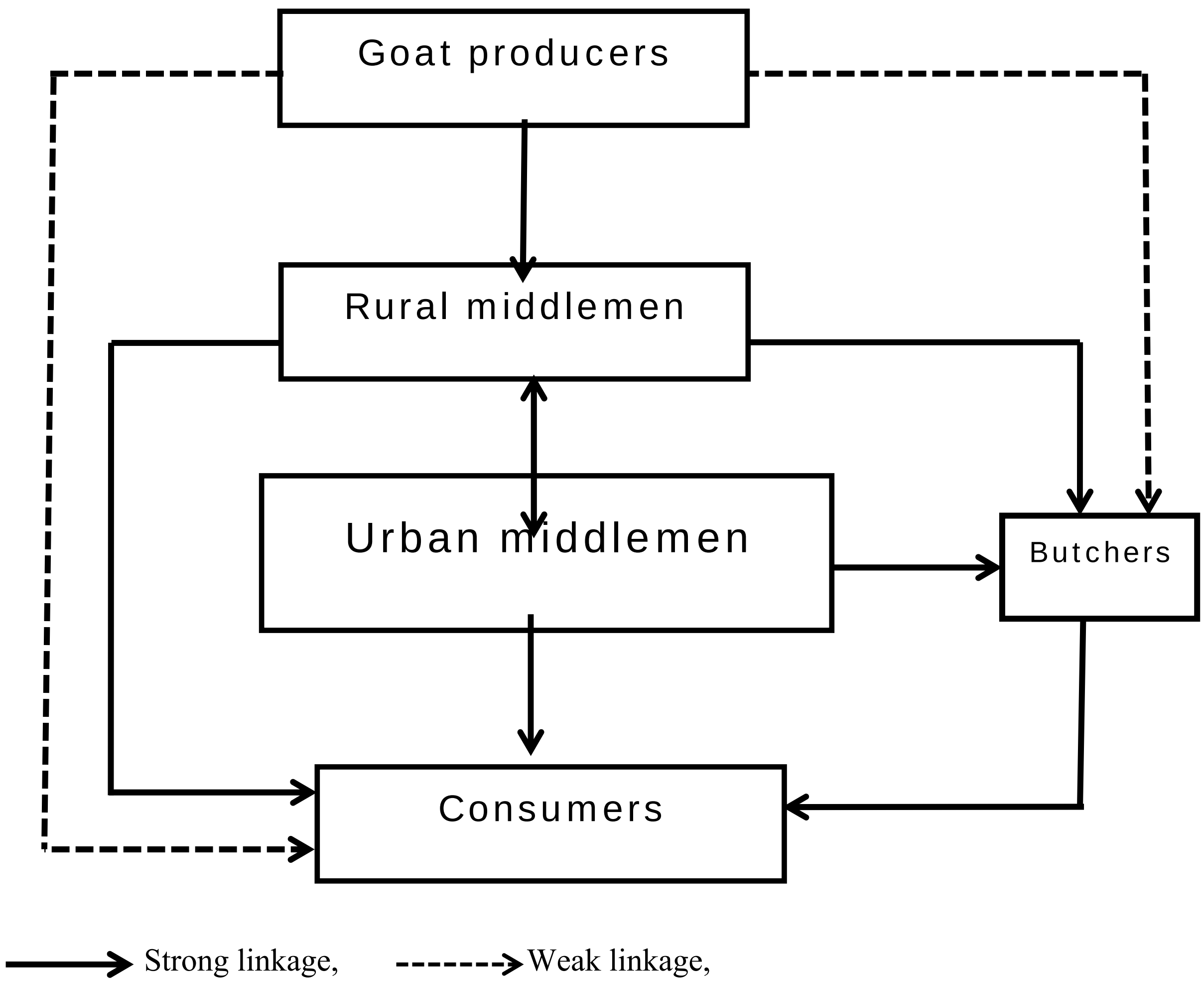

Figure 1: Marketing channels for goats in Benue State, Nigeria.

Source: field survey 2014.

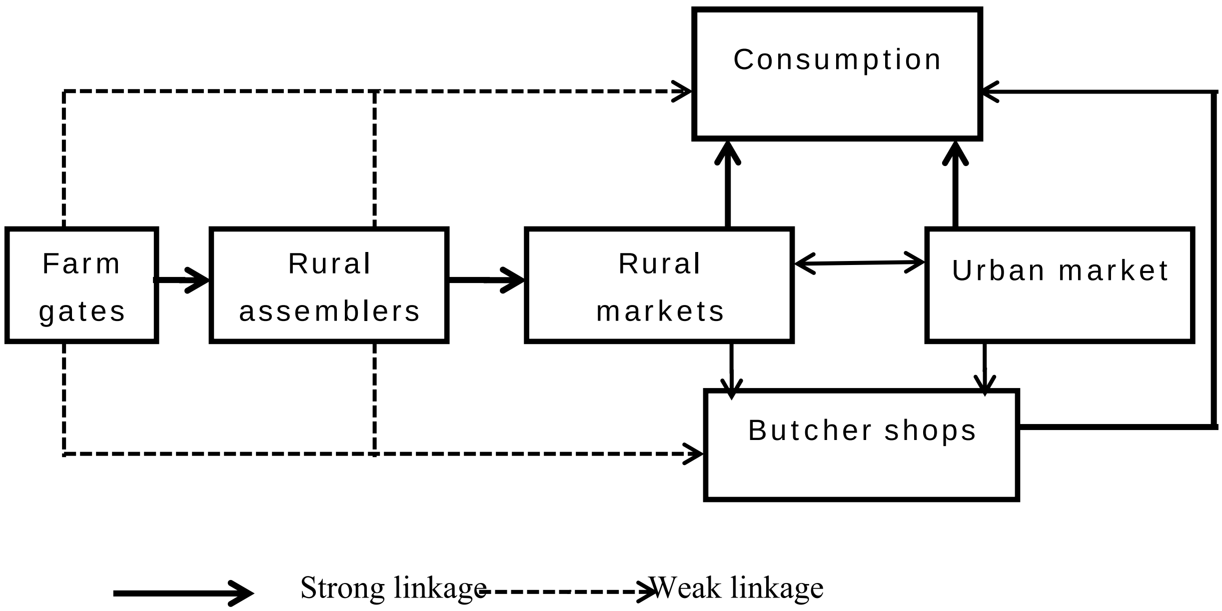

Figure 2: Marketing chain for goats in Benue State, Nigeria

Source: field survey 2014.

Table 2: Distribution of Respondents according to the number of Goats Purchased and Sold per week

Parameter	Frequency	Percentage
Goats purchased per week		
01-10	43	36
11-20	41	34
21-30	18	15
31-40	06	05
41 & above	12	10
Total	120	100
Goats sold per week		
01-10	67	56
11-20	30	25
21-30	11	09
31-40	04	03
41 & above	08	07
Total	120	100

Source: field survey 2014

4.2. The Market Structure for Goats in the Study Area

The weekly sales distribution of goat wholesalers and retailers are shown in Table 5 and 6. The results indicate that majority (63.9%) of the wholesalers had weekly sales between ₦200, 001 - ₦400,000, representing 37.1% percent of the total volume of weekly sales. A few (2.77%) of those with average weekly sales ranging from ₦1, 400, 001 to ₦1, 600, 000 accounted for (8.07%) of the total weekly sales.

The mean value of the weekly sales was ₦51, 6667.17. The empirical results indicate that the wholesale goat market was concentrated, with Gini coefficient of 0.52, indicating the possibility of non-competitive behavour.

For the retailers about, (28.6%) had sales range of ₦100001- ₦ 150000representing 35.09 percent of the total weekly sales. This was the highest, followed by the retailers of sales range of ₦50001 to ₦ 100000, constituting 35.7 percent of the retailers and handling 26.32 percent of the total sales. The mean weekly sales was ₦101,786.21. These findings revealed that the retail market was competitive with low Gini coefficient of 0.45 compared with the wholesalers (0.52). This is, because, people differ in their ability to take risk. Those who have the high propensity to take risks appear to choose more risky venture, which is associated with large earnings and more profit. This enhances their market power and engenders concentration (Iheanacho & Mshelia, 2004). In goat retail market, on the other hand, low capital investment makes entry easy. This makes sellers concentration moderate or less, and this is on average. It is an indication of lower profit due to presence of many buyers and sellers.

Table 4: Weekly Sales Distribution of Goat wholesalers in Benue State, Nigeria

Sales range values(N)	Sales class middle point A	No. of wholesalers	Percentage of wholesalers (xp)	***Total weekly Sales (y)***
200001 - 400 000	300000.5	23	63.89	6900011.5
400001 - 600000	500000.5	6	16.67	3000003
600001 – 800000	700000.5	1	2.78	700000.5
800001 - 1000000	900000.5	3	8.33	2700001.5
100001 - 1200000	1100001	0	0	0
1200001 - 1400000	1300001	0	0	0
1400001 - 1600000	1500001	1	2.77	1500000.5
1600001 - 1800000	1700001	0	0	0
1800001 - 2000000	1900001	2	5.56	3800001
Total	9900005	36	100	18600018

Percentage of total sales (Y/Yt x 100)	**Cumulative of total sales (Yc)**	**Xp ÷ 100**	**Yc ÷ 100**	**Xp/100 * Yc/100**
37.1	37.1	0.6389	0.371	0.2370319
16.13	53.23	0.1667	0.5323	0.08873441
3.75	56.98	0.0278	0.5698	0.01584044
14.52	71.5	0.0833	0.715	0.0595595
0	71.5	0	0.715	0
0	71.5	0	0.715	0
8.07	79.57	0.0277	0.7957	0.02204089
0	79.57	0	0.7957	0
20.43	100	0.0556	1	0.0556
100				∑xy= 0.47880714

Source: computed from field survey data 2014

Mean value of weekly sales = ∑y ÷ ∑c

= ₦18600018/36

= ₦ 51666.69

Gini coefficient = 1- ∑XY= 1 – 0.4788 = 0.5212

Table 5: Weekly Sales Distribution of Goat Retailers in Benue State, Nigeria

Sales range values(₦)	Sales class middle point	No. of Retailers (X)	Percentage of Retailers (Xp)	Total Weekly Sales (y)
001 - 50000	25000.50	13	15.5	325006.5
50001 - 100000	75000.50	30	35.7	2250015.0
100001 - 150000	125000.50	24	28.6	3000012.0
150001 - 200000	175000.50	17	20.2	2975008.5
Total		84	I00.0	8550042.0

Percentage of total weekly sales (Yp)	Cumulative of total sales (Yc)	Xp ÷ 100	Yc ÷ 100	Xp/100 * Yc/100
3.801	3.801	0.155	0.3801	0.0589
26.316	30.117	0.357	0.3012	0.1075
35.088	65.205	0.286	0.6521	0.1865
34.795	100.00	0.202	1.0000	0.2020
Total				∑XY= 0.5549

Sources: computed from field survey data 2014.

Mean value of weekly sales = ∑y ÷ ∑c
= ₦ 8550042 / 84
= ₦101,786.21
Gini coefficient = 1- ∑XY= 1 – 0.555= 0.445

5. Conclusion

Evidence from the study indicates that structural and marketing constraints affects goat markets within the study. The study however, determined the market structure for goats.

6. Recommendations

i. Provision of favorable and functional market regulating frame work that can eliminate or reduce to the barest minimum illegal fees or taxes charged along marketing channel for goats should be put in place.
ii. Governments at all levels should provide an enabling environment such as market facilities, and favorable market regulatory framework for profitable goat marketing agribusiness in the study area.
iii. Stakeholders such as Governments, goat traders associations, and NGOs associated with goat industry development should provide market facilities such as portable water, good housing, lighting points, unit of measurements for efficient marketing systems; and government should harmonize goat taxes paid by goat marketers and producers so as to have a unified livestock taxing system. These will go along way to reduce the constraints in goat marketing.

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