ANALYSIS OF BEEF MARKETING IN LAFIA METROPOLIS OF NASARAWA STATE, NIGERIA

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Abstract

Purpose: The study analysed the marketing of beef in Lafia metropolis. Specifically, the study described the socio-economic characteristics of beef marketers in the area, analysed the market structure for beef, assessed the marketing cost and profit, and estimated the operational efficiency of beef marketing and its determinants. It also identified the constraints faced by beef marketers in the area.

Methodology: Data used for the study were generated through administration of well structured questionnaire to 60 respondents made up of 20 wholesalers and 40 retailers randomly selected from 4 major beef markets in the study area. Data were analysed using descriptive statistics, budgeting, concentration ratios, Gini coefficient, operational efficiency and regression technique.

Results: Results showed variation in marketing cost, marketing margin and marketing profit for both wholesale and retail beef markets. Results also indicated that wholesale beef market operated at a monopoly level while the retail beef market showed perfect competition. The Gini coefficient for wholesalers of 0.47, which is above 0.35 indicates high level of market concentration and high inequality in wholesale beef market, while retail market with a value of 0.29 shows low level of market concentration and low level of inequality. Wholesalers were also more operationally efficient than retailers. The result further showed that transportation cost had significant effects on marketing efficiency for the wholesale market. But transportation cost, record keep, level of education and packaging cost has significant effect on operational efficiency of beef retail market. Results also indicated that marketers both wholesalers and retailers complained of inadequate capital as a very serious constraint; transportation cost and inadequate storage facilities, as serious constraints; risk of spoilage, low patronage as not serious constraints, and market charges as not very serious constraints.

Keywords: *Beef, market, structure, efficiency, performance*

INTRODUCTION Background of the Study

Livestock are those animals which man has domesticated and multiplied for his benefits. The importance of the livestock sub-sector to the Nigerian economy derives not only from its substantial contributions to the gross domestic products (GDP), but also from its supply of animal protein which is of value in human nutrition (Njoku, 1997).

The flesh of bovine animal that is in butchery is called beef. It is used generally to refer to the meat of a heifer, cow, bull, young bull, bullock or steer, even though the tenderness and flavor may vary greatly. It is a rich source of protein, lipid, vitamins, phosphorous and other substances that are nutritionally important. The demand for animal protein in Nigeria, like in other developing countries of the world, is far from being met. The average minimum supply of animal protein per head per day for Nigeria was put at 13.26g (Okuneye, 2002) far below the recommended minimum of 35g of protein expected to come from meat products (Oyenuga, 1987). The world shortage of protein particularly in developing countries like Nigeria has necessitated the investigation into several sources of protein. The acute shortage of protein has been attributed to the phenomenal rise in the price of animal feed which accounts for about 60-80% of the cost of intensive production, particularly for ruminants. This has the effect of escalating the prices of animal products beyond the reach of the average Nigerian (Afolabi, 2002). Although there are many sources of animal protein, studies have shown that products from cattle are the most commonly consumed in Nigeria. Ikpi (1990) stated that between 1970 and 1989 beef contributed over 70.93% of the total meat consumed in Nigeria; consequently the cattle industry provides a better nutrition through which the living standard of the people can be improved. The issues raised so far tend to center more on production. However, production and marketing are intricately linked. Olukosi *et al.* (2007) viewed marketing as part and parcel of the production process since it creates utilities of form, place, time and possession with goods and services produced, thus constituting a bridge between production and consumption.

In Nigeria, there exists a high rate of spoilage of agricultural products, including beef, arising from poor storage and transport facilities thereby hampering the total supply of food reaching the consumers table (Okuneye, 2002). According to the National Livestock Project Division (NLPD, 1992), the supply of cattle and its product have been declining while the demand has been increasing. The shortfall in supply of cattle has often been linked to high cost of cattle marketing, which include: transportation of cattle, market development, market infrastructure, and market information. Markets across Nigeria are shrouded in secrecy until a bargain is struck. According to Olukosi *et al*. (2007), the exact number of agents in these markets is difficult to determine and various unfixed charges and commissions are paid by buyer depending on his bargaining power. Most of the butchers and merchants are registered, but the brokers are not registered officially, making them to operate often without license. It is alleged that the involvement of too many middlemen in the marketing of animal products and by products leads to an inefficient distribution system, high marketing costs and margins (Ekunwe *et al.*, 2008).

Statement of Research Problem

The shortage of animal's protein is severe in Nigeria probably because of the failure of the livestock sub-sector to expand in order to meet current demands in the country. Current estimate indicate that the average daily per capital supply of animal protein for Nigeria is less by 35% of the recommended level. For beef to get to the consumer, just as other agriculture products, there must be a well organized marketing system. Beef purchasing and consumption patterns vary substantially among the people. Factors like characteristics of the consumer, characteristics of the products, buying practices and trade practices motivate people in making purchasing decision. Consumer preferences and consumption pattern are the main determinants of the demand for the various quantities and qualities of meat products. Such preference and consumption pattern changes with time, geographical location and age of the consumer (Abubakar, 1998). This however depends on the returns to management in the marketing of beef.

The broad objective of this study is to analyze the marketing of beef in Lafia Metropolis. The specific objectives are to: (i) describe the socio- economic characteristic of beef marketers in the study area; (ii) analyse the market structure for beef in the study area; (iii) estimate marketing cost, marketing margin and marketing profit for beef in the area; (iv) assess the determinants of operational efficiency in beef marketing; and (v) identify the constraints in beef marketing in the study area.

METHODOLOGY

The area of the study is Lafia Metropolis of Nasarawa State. The study was carried out at the main abattoir of the city as well as major markets between the months of April and May 2015. Lafia metropolis shares boundaries with Nasarawa Eggon in the North, Obi Local Government Area in the South, Doma Local Government Area in the west and Quanpaan Local Government Area of plateau in the west. Lafia is located between latitude 8^0.33 "N", longitude 8^0. 32 "E" and has altitude of 181.53 meters with annual rainfall of about 150m, with the highest rainfall in the months of August and September. The rainy season usually lasts from late April to late October and the dry season spanning from November to March. The study area has an average temperature of 32^0c. The area consists of the following tribes: Eggon, Gwandara, Alago, Migili; Hausa, Fulani, Kambari and Rendre. The major occupation of the inhabitants of the area is predominantly farming which involves crop production and rearing of animals.

Sampling and sample size

A two-stage random sampling procedure was used to select the respondents. The first stage involved the random selection of four beef markets in the Metropolis. The second stage involves the random selection of 15 beef marketers from each market making a total of sixty (60) respondents for the study.

Methods of data collection

Data were collected from beef marketers with the aid of a well structured questionnaire and through interview schedule. Data collected include the respondents socio-economic characteristics, marketing channels, quantity of beef marketed, beef buying and selling price, transportation cost, etc.

Analytical techniques Descriptive statistics

These comprise mean, standard error, frequency, total, etc. The market structure was analysed using concentration ratio and Gini coefficient analysis. The marketing cost, marketing margin and marketing profit were analysed using budgeting approach (objective 3) and the determinants of operational efficiency were assessed using regression analysis. A t-test was adopted to compare wholesalers to retailers' performance.

Marketing margin analysis

Marketing margin, marketing cost, marketing profit were estimated as follows.

$$MM = SP - PP$$

$$MC = LC + PC + TRP + PK$$

$$Profit = MM - MC$$

MM= marketing margin; MC= marketing cost; SP= selling price; PP= Purchase price; LC = labour cost; TRP = transportation cost; PK = packaging cost.

Concentration ratio analysis

Two largest, four largest and 8 largest firms were used as follows.

$$CR_2 = \frac{Q_1 + Q_2}{\sum_i^n Q_i} *100$$

$$CR_4 = \frac{Q_1 + Q_2 + Q_3 + Q_4}{\sum_i^n Q_i}$$

$$CR_8 = \frac{Q_1 + Q_2 + Q_3 + Q_4 + Q_5 + Q_6 + Q_2 + Q_8}{\sum_i^n Q_i}$$

Where Q_i =quantity of beef sold by i^{th} marketer (in kg)

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$\sum_i^n Qi$ = Total quality of beef marketed by all marketers (kg)

CR_2; CR_4; and CR_8 all are concentration ratios of 2 largest, 4 largest and 8 largest firms.

Gini coefficient (GC) analysis

This was captured using the following formula.

$$GC = 1 - \sum XY$$

Where, GC = Gini Coefficient

X= percentage of beef marketers by range

Y= cumulative percentage quantity of beef sold

Operational Efficiency (OE) analysis

The Operational Efficiency (OE) of beef marketer was assessed as follows.

$$OE_i = \frac{TS}{TC}$$

$$OE_0 = Max [OEi]$$

$$OE_{(Overall)} = \frac{OE_i \times 100}{OE_o}$$

Where OE_i = local efficiency

OE_o = local optimum

$OE_{(overall)}$ = Overall operational efficiency

TS =total sales

TC = total market cost

Determinants of operational efficiency

The model is specified as follows.

$$OE = f (X_1, \ldots, X_n, e_i)$$

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Specifically,

$$OE = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6$$

Where,

OE = level of operational efficiency of beef market

b_0 = intercept

X_1 = experience

X_2 = record keeping

X_3 = education level

X_4 = packaging cost

X_5 = transportation cost X_6

= household size e_i = randomly

distributed error terms

RESULTS AND DISCUSSIONS Socio-Economic Characteristics of the Respondents   Gender of Respondents

The result of the study in table 1 shows that all beef marketers were male. That is there is no female among the beef marketers. This showed that beef marketing is only a male business in the area. This may be as a result of cultural barriers.

Age distribution of respondents

The result of age distribution of respondents as presented in Table1 shows that most of the wholesalers (40%) are between ages 31-35, making the 40% of the respondents while retailers are of the between 25-30 making 32.5% of the respondents. This means that most of the beef marketers in the study area are still in their economically active age group. The average age was 36 for wholesaler and 35 for retailers.

Marital status of respondents

Table 1 shows that 100% of wholesalers are married against 75% only for retailers. While 22.5% and 2.5% are singles and divorcees respectively. The result means that most of beef marketers in the study area derived enough income from the business to support their families' needs.

Educational level of respondents

The result in the table 1 showed that 60% of the wholesalers undergo non-formal education, 35% went to primary schools. For the retailers 47% undergo non-formal education, 25% went to primary school, 12.5% went to secondary school, 2.5% had HND/University certificate. This result shows that most beef marketers in the area do not have formal education especially the wholesaler.

Household size of respondents

The result in table 1 also showed that 30% of wholesalers have household Size of between 1-5, 40% between 6-10, 25% between 11-15 and 5% have between 16-20; while this is 45%, 20%, 27.5% and 7.5% respectively for retailers.

Marketing experience of respondents

The study revealed that 10% of the wholesalers have been in business between 1-5 years; 35% between 6-10 years, 25% between 11-15 years, 5% between 16-20 and 25% between 21 years and above. On the other hand 27.5% of the retailers have being in business between 6-10 years, 17.5% between from 21years and above. The average experience of wholesalers was 13 years while that of retailers was 11.This implies that the wholesalers had more experience than the retailers.

Records keeping by respondents

The study showed that 45% of the wholesalers keep record and 55% do not keep records. On the other hand 75% of the retailers keep record while 25% did not. This implies that the retailers keep record of marketing beef more than the wholesalers. **Table 1: Socio-economic characteristics of beef marketing in Lafia**

	Variable	Proportion		Frequency	
		Wholesalers	Retailer	Wholesalers	Retailer
1	**Gender**				
	Male	20	40	100	100
	Female	0	0	0	0
2	**Age** (years)				
	25-30	3	13	15	32.5
	31-35	8	7	40	17.5

	36-40	6	12	30	30
	41-45	2	3	10	7.5
	46-50	-	2	0	5
	51 and above	1	3	5	7.5
3	**Marital status**				
	Single	1	8	5	20
	Married	19	30	95	75
	Window	-	-	-	-
	Divorce	-	1	-	5
4	**Educational level**				
	Non-formal education	12	19	60	47.5
	Primary school	7	8	35	20
	Secondary school	-	5	-	12.5
	Primary school	7	8	35	20
	Secondary school	-	5	-	12.5
	OND/NCE	1	5	5	12.5
	HND/University	-	3	-	7.5
5	**Housing cold size**				
	1-5	6	18	30	45
	6-10	8	8	40	20
	11-15	5	11	25	27.5
	16-20	1	3	5	7.5
6	**Marketing**				

experience (year)				
1-5	2	11	10	27.5
6-10	7	10	35	25
11-15	5	11	25	27.5
16-20	1	1	5	2.5
21 and above	5	7	25	17.5
7 **Record keeping**				
Yes	9	30	45	25
No	11	10	55	25

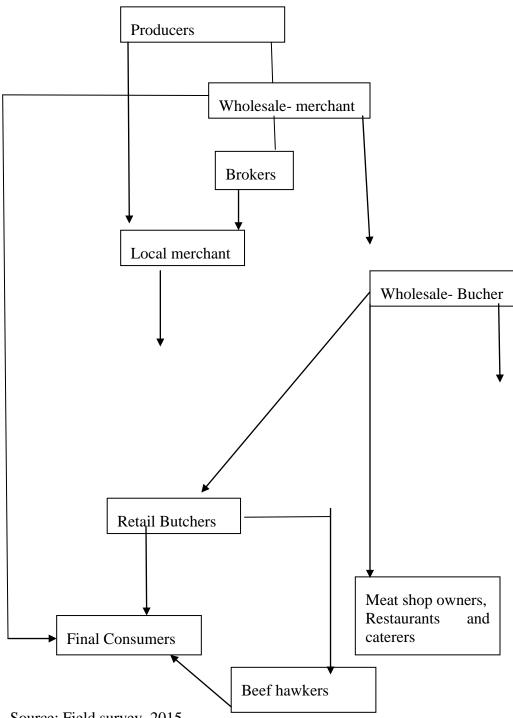Source: Field Survey, 2015 * Multi responses were recorded

Analysis of Market Structure of Beef Marketing Channel for Beef in the Study Area

The most direct and frequently used channel for beef marketing (as shown in Fig.2) was from cattle rearer (producers) in the surrounding towns and states in the middle, region of north of Nigeria through the wholesale merchants and local merchants in the Lafia metropolis, who sell directly to wholesaler-butchers who are then patronized by retailbutchers that sell directly to final consumers in the open market. This appears to be the quickest (and by implication, cheapest) route to get beef in Lafia probably due to reduced activities of middleman. Consumers also prefer this channel due to high love of freedom it afford buyer to select their preferred beef parts and to haggle to suitable price are fixed and beef are stored in frozen form, making it difficult to decipher preferred beef parts and haggle for a suitable price. Such opportunities seldom exist in organized meat shops were prices are fixed and beef are stored in frozen form, making it difficult to decipher preferred parts. Consumers however expressed deep reservation about the unhygienic conditions in which the meat is displayed in the open market which predisposes it to infestation by flies. The analysis compared favourably with the report by Waziri et al. (2011) who studied goat and chevron meat marketing in Delta State and posited that consumers preferred the shortest channel that gets the meat to them in the open market, arguing that the meat hawkers usually had little quantity of chevron making it difficult for consumers to compare meat parts before purchase. The beef marketing channels in the area are presented in the figure 2 below.

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Figure 2: Beef marketing channels in Lafia Metropolis

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                    ┌──────────────┐
                    │  Producers   │
                    └──────────────┘
                    ┌────────────────────┐
                    │ Wholesale- merchant│
                    └────────────────────┘
                         ┌──────────┐
                         │  Brokers │
                         └──────────┘
              ┌───────────────┐
              │ Local merchant│
              └───────────────┘
                              ┌────────────────────┐
                              │ Wholesale- Bucher  │
                              └────────────────────┘
          ┌────────────────┐
          │ Retail Butchers│
          └────────────────┘
                                    ┌──────────────────────┐
                                    │ Meat shop owners,     │
                                    │ Restaurants      and  │
                                    │ caterers              │
                                    └──────────────────────┘
   ┌──────────────────┐
   │ Final Consumers  │
   └──────────────────┘
              ┌──────────────┐
              │ Beef hawkers │
              └──────────────┘
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Source: Field survey, 2015

Concentration Ratio

From result presented in table 2, the two-firm concentration ratio for wholesalers of beef in the area showed 17.97% while that of retailers showed 8.9%, for four firm concentration

ratio the wholesalers showed 39.24% while the retails showed 16.64%. The eight firm concentration ratios for wholesalers had 48.81% and retails 30.19%. The two, four and eight firm concentration ratio for wholesale also indicated a perfectly competitive market (when getting towards zero). The eight firm concentration ratio for wholesale was 48.8% which was above 35% and moving towards monopoly (single seller with considerable control over supply and price).

Table 2: Measure of concentration ratio of beef marketing in Lafia LGA

Concentration ratio	CR_2	CR_4	CR_8
Wholesalers	17.99	39.24	49.81
Retailers	8.90	16.64	30.19

Source: Data Analysis, 2015

Gini Coefficient

From the result presented in the study area as 0.4678 and 0.2985 for wholesale and retails respectively indicating or implying a high level of inequality in sales of wholesalers and hence high level of concentration This is a reflection of inefficiency in the market structure for wholesale beef while the retailer showed low level of inequality in sales and low concentration in the study area as shown in table 3.

Table 3: Computation of Gini coefficient for beef markers in Lafia metropolis

	No of total		% of No of xy seller (f)		Cumulative seller(s) frequency		Total quantity sold		% of quantity sold			
QS	WS	RR	WS	RR	WS	RR	WS	RR	WS	RR	WS	RR
1-100	-	26	-	65	-	26	-	1943	-	5047		0.4281
101-201	15	14	75	35	15	40	2602	1902	65.23	49.53	0.4892	0.2734
202-302	3	-	15	-	18	-	670	-	16.80	-	0.0250	
303-403	2	-	10	-	20	-	717	-	19.97	-	0.01797	

WS = wholesaler; RR = Retailer: Wholesaler: $\sum XY$ (WS) = 0.5322; Retailers: $\sum XY$ (RR) = 0.7015: Source: Field analysis, 2015

Analysis of Marketing cost, Marketing Margin and Marketing Profit

Comparative analysis of wholesaler and retailer. Marketing margin showed that retailers incurred higher marketing cost (170.67) kg as against that N97.17 /kg for wholesalers had N228.00/kg (34.49%) while retailers had N 639.98 /kg (65.46%) these agreed with the findings of Erhabor *et al.* (2008) who reported high margin for retail beef marketing (4.89%) than for wholesale marketing (1.82%). The marketing profit per kilo of beef retails in the study area is higher than wholesaler beef marketing give the means daily sales of 199.45 kg for wholesales and 96.825 kg for retails respectively. The marketers could earn decent income in present days, Nigeria, where monthly minimum wage is still below N20,000. However, this can only be realized if the market for beef in Lafia metropolis is stable enough to ensure regular sales. The marketing cost incurred by wholesalers and was highest in the labour cost which for both. This may be as a result of employment of labour which was highest in retail market.

Table 4: Marketing cost, marketing margin and marketing profit per kg of beef in Lafia Metropolis

Wholesalers	433.00	97.17	661.00	228.00	(34.41%)	130-83
Retailers	639.95	170.67	977.50	639.95	(65.46%)	166.88

Source: Data analysis, 2015

Table 5: Major components of beef marketing cost in Lafia Metropolis

	Transportation cost	Packaging cost	Processing cost	Labor wage	Total
wholesalers	28.95(29.79%)	8.20(8.45%)	21.37(21.99%)	68.00(69.98%)	97.17
Retailers	65.18(38.19%)	15.48(9.07%)	21.37(21.52%)	74.55(43.68%)	170.67

Source: Field survey multi purposes were recorded.

Analysis of beef marketers' Operational Efficiency Analysis of Operational Efficiency distribution for Beef Marketers

From the result presented in table 6, the operational efficiency of wholesalers and retailers of beef marketing in the study area shows an average of 94% and 79%, respectively. This indicates higher operational efficiency for beef in wholesale than retail. The implication is that wholesalers had 6% inefficiency and retailers 21%. There is need to increase their capacity to deliver beef to the customers in the most cost effective manner.

Table 6: Operational Efficiency distribution of beef marketing in Lafia Metropolis

Range	Frequency		Proportion	
	WS	RR	WS	RR
1-100	-	26	-	65
101-201	15	14	75	35
202-302	3	-	15	-
203-403	2	-	10	-

Source: Field analysis, 2015

WS=wholesalers,   RR=Retailers,

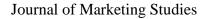### Determinants of Operational Efficiency of beef marketing in the study area

Table 6 shows the result of the regression analysis of the determinants of beef marketing operational efficiency. The F-test value of 5,188*** significant at 1% indicates a significant estimation and a significant R^2. One of the explanatory variables was significance at 5% that is it has effects on the operational efficiency (overall) of the wholesalers. Implication is that an increase in transportation cost leads to an increase in operational efficiency (overall) of retailers. The variables packaging cost transportation cost educational level and record keeping.

This implies as an increase in these variable leads to increase in the efficiency (overall)

Wholesalers

$OE = 107.14 - 0.006X_1 + 2.55X_2 - 1.19X_3 - 0.11X_4 - 0.361X_5 - 0.287X_6$

(3.557) (0.191) (1.730) (0.7851) (0.69) (0.91) (0.267)

$R^2 = 0.60$ F-test = 5.186 ***

Retailers

$Y = 77.133 - 0201X_1 + 7.204X_2 + 1.697X_3 - 0.485X_4 - 0.261X_5 + 0.182X_6$

(5.402) (0.1491) (2.701) (0.833) (0.182) (0.57) (2.99)

$R^2 = 0.60$ F-test = 5.188 ***

The values in parenthesis are standard error from the result presented in table 7. Experience had a negative co-efficiency for the both wholesalers and retailers with -0.006 and -0.201, respectively. This implies that experience had a negative impact on the operational efficiencies of wholesaler and retailer. Record keeping is positive for both the wholesalers

and retailers (2.553and 7.204 respectively). This implies that, the more the marketers keep record, the more the operational efficiency.

The educational level for wholesaler was negative while that of retailers was positive. The implication was that the higher the education level the lower the operational efficiency. While the higher the education level, the higher the operational efficiency of retailers. The packaging cost for wholesalers showed a negative co efficiency (-0.109), implicating a positive impact on the operational efficiency for the retailers. Transportation cost for both wholesalers and retailers showed a negative impacts on the operational efficiencies for both wholesalers and retailers. Household size for wholesalers showed a negative (-0.287), implicating decrease in operational efficiency with an increase in household size.

On the other hand, the coefficient of retailers showed a positive sign (0.182) implicating that an increase in household size increases operational efficiency of retailers. **Table 7: Determinants of operational efficiency of beef marketers in Lafia**

	Coefficient		Standard Error		t-value		Significance level	
Variable	**WS**	**RR**	**WS**	**RR**	**WS**	**RR**	**WS**	**R.R**
Constant	107.14***	77.13***	3.957	5.402	27.07	14.27	7.07	0.00
Experience	-0.006	-0.201	0.191	0.149	-0.03	-1.34	-0.63	0.188
Record keeping	2.553	7.20**	1.730	2.701	1.476	2.668	1.416	0.012
Education level	-1.191	1.69**	0.285	0.835	-1.516	2.032	-1.516	0.50
Packaging cost	-1.109	0.48**	0.169	0.182	-0.646	2.662	-0.646	0.12
Transportation cost	-0.36***	0.26***	0.091	0.057	-3.984	-4.605	-3.984	0.000
Household size	-0.287	0.182	0.267	0.299	0.299	-1.072	0.608	0.548

WS=wholesalers,   RR=Retailers; Source: data analysis, 2015 **Constraints**

faced by beef marketers in the study area.

Beef marketers in the study area identified are ranked as presented in table 8. The wholesalers are faced with inadequate capital as the most serious followed by inadequate capital as the most serious, followed by inadequate storage as facilities, risk of spoilage are the serious constraints on the other land retailers are faced with inadequate capital as the most serious transportation cost and inadequate storage facilities.
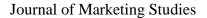
Table 8: Constraints faced by beef wholesalers and retailers in Lafia

Constraints faced by beef wholesalers in Lafia

Constraint	Score	Rank	Remark
Inadequate capital	18	1	Very serious
Inadequate storage facilities	28	2	serious
Risk of spoilage	39	3	serious
Low patronage	48	4	serious
Transportation	58	5	Not very serious
Market charges	86	6	Not serious

Constraints faced by retail beef marketers in Lafia metropolis

Constraint	Score	Rank	Remark
Inadequate capital	30	1	Very serious
Transportation cost	68	2	serious
Inadequate storage facilities	82	3	serious
Risk of spoilage	99	4	Not very serious
Low patronage	122	5	Not very serious
Market charges	165	6	Not serious

Source: Data analysis, 2015

CONCLUSION AND RECOMMENDATION

This study analyses the beef marketing in Lafia Metropolis. The objectives of the study were to describe the socio-economic characteristics of beef marketers; analyze the market structure, assess the marketing operational efficiency and its determinants. Descriptive statistics, budgeting and regression analysis were used to address the study objectives.

Results show that beef is mainly marketed in Lafia metropolis by wholesalers and retailers. Comparative analysis of wholesalers and retailers showed difference in marketing cost, marketing margin and marketing profit. The marketing cost component incurred by the marketers showed that both the wholesalers and retailers paid highest cost on labour (N 68.00%; 69. 98% and N 74.55, 43.68% of marketing cost respectively). This may be as a result of employment of labour which was higher in retail and wholesale.

The concentration ratio, for wholesale (39.24%) showed that the market structure is of monopoly type while that of the retailers is perfectly competitive. The

Gini Coefficient for wholesalers of 0.468 showed a high level of concentration and high level of inequality in sales for the wholesalers, while that of retailers (0.298) showed low level of concentration and low level of inequality in sales for the retailers.

The mean operational efficiency (overall) for the marketers are 94.70% and 79.08% for wholesalers and retailers respectively, showed the wholesalers can deliver beef to retailers in most cost-effective manners while still ensuring the high quality of its product, service and support more that the retailers.

Constraints faced by wholesalers are identified as inadequate capital, inadequate storage facilities, risk of spoilage and those encountered by retailers are: inadequate capital, transportation cost, and inadequate storage facilities.

Based on the findings, the following recommendations were suggested:

i.   Marketers should encourage forming co-operative for the purpose accessing loans or credits.

ii.   Government and community based organization (CBO) as well as other nongovernment organizations (NGOs) should provide mobile cold-rooms for easy transportation of beef. This would reduce the constraint of high perishability/spoilage of beef and result in quality enhancement.

iii. Efforts should be geared towards making provision for good storage facilities in cooperation with the power holding company for constant power supply to avoid

spoilage and increase the shelf-life of beef. iv. Government should ease transportation and storage facilities as to facilitate quality of the product which attracts buyer.

  v. Government should site more abattoirs close to major beef market to reduce transportation cost and consumer price, which will also provide quicker and more efficient service at reasonable cost.

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