



ASSESSMENT OF MEAT PROCESSORS AND THEIR PERCEPTIONS OF
ABATTOIRS MANAGEMENT IN OGUN STATE, NIGERIA



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Received: June 05, 2019 Accepted: September 07, 2019

Abstract: This study was carried out to assess the socio-economic characteristics of meat processors and their perception of abattoirs management in Ogun State, Nigeria. One hundred and twenty questionnaires were administered in four geo-political zones of Ogun State. Two registered, approved and functional abattoirs were selected from each zone and 15 questionnaires were administered to assess the age, sex, level of education, religious affiliation, marital status, annual income of meat processors, as well as their ratings of meat inspection and abattoirs conditions. Data collected were analysed with the aid of descriptive statistics that included frequencies and percentages. The results showed that majority (39.2%) of abattoir workers were young secondary school leavers (36.7%), who are married (35.0%) and are Muslims by religion (49.2%), had access to fund (38.3%) were engaged in meat processing at abattoirs in Ogun State. The majority of the abattoir workers (37.5%) employed in assessed abattoirs in Ogun state, were considered as fair due to inadequate facilities, unhygienic practices and maintenance. It was recommended that government should take proper, prompt, adequate and regular care of the abattoirs and pay compensations to meat processors whose meat were condemned so that wholesome and safe meat would be produced for public consumption in Ogun State.

Keywords: Abattoir management, meat processors, Ogun State, perception, socio-economic

Introduction

Meat and meat products wholesomeness depends on the quality of animals, processing techniques and the environment under which the carcasses are handled as well as the literacy level of meat processors. Consumers' preference is more towards the quality and safety of meat and meat products in Ogun State (Bamgbose and Niba, 1998; Apata *et al.*, 2013). Slaughtering of animals is often done in abattoirs with unsatisfactory conditions such as inadequate facilities, water supply, sewage disposal systems and animals and meat inspection in developing countries like Nigeria (Joseph *et al.*, 1999). All these contribute to production of unwholesome and unsafe meat (Adeyemi and Adeyemo, 2007).

Another important factor that could contribute to production of unwholesome meat is the attitudes of abattoir workers towards personal hygiene of the equipment and tools (knives, saws) they use for processing of carcasses. This is due to their level of literacy on one hand (FAO, 2006) and the attitude of the governments at local, state and federal levels of Nigeria that might have constructed the public abattoirs in terms of providing adequate maintenance of the abattoirs (Adeyemo *et al.*, 2009).

Poor standard of hygiene in abattoirs can result in high levels of microbial contamination of meat during carcass handling (ICMSF, 1986; APHA, 1992; AOAC, 2000; Insausti *et al.*, 2001); thus, reducing the shelf-life and sensory attributes of the meat (FAO, 2001). This study was conducted to evaluate the socio-economic characteristics of meat processors and their perception of abattoir management in Ogun State, Nigeria.

Materials and Methods

This study was conducted covering four geo-political zones of Ogun state- Ijebu, Remo, Egba and Yewa using multiple stage sampling procedure (Oloyo, 2001). Two functional abattoirs were selected from each zone and 120 questionnaires administered on the workers as shown in Table 1.

Table 1: Composition of sampled area

S/N	Zone	Town	LGA	No of questionnaire
1	Ijebu	Ijebu-Igbo	Ijebu-North	15
		Ijebu-Ode	Ijebu-Ode	15
2	Remo	Sagamu	Sagamu	15
		Ikenne	Ikenne	15
3	Egba	Abeokuta	Abeokuta North	15
		Itori	Ewekoro	15
4	Yewa	Ilaro	Yewa South	15
		Ayetoro	Yewa North	15
Total	04	08	08	120

LGA- Local Government Area

Data collection and analysis

One hundred and twenty structured questionnaires were administered on meat processors at each of the eight abattoirs studied in four zones of the state to source for data. At the abattoirs fifteen questionnaires were distributed and the respondents assisted to complete them. The questionnaires were earlier validated using test and re-test reliability estimation method whereby it was tested on a sub-sample of the parent population to be studied at interval of 2 weeks and all data collected were analysed using descriptive statistics of frequencies and percentages (Oloyo, 2001).

The validity and reliability of the questionnaire used were ascertained by test and retest to eliminate ambiguities to ensure its appropriateness for effective data collection. Data were collected from primary source using the questionnaires to determine socio-economic characteristics of abattoir workers which include age, sex, educational level, marital status, religious affiliation, income status as well as the workers perception of the abattoirs maintenance (Oloyo, 2001).

Results and Discussion

Table 2 shows the results of the respondents according to their age and sex. Majority of abattoir workers fell within the age range of 21 – 30 years which indicated that most of the workers were still young while the majority of the workers were male showing that males were involved more in slaughter of animals probably due to the strenuous nature of the work in which the animals have to be stunned and fell before sticking, bleeding and evisceration of the carcasses. These results were in agreement with the findings of Adeyemi and Adeyemo (2007) who reported that young male individuals were involved in cattle slaughter practice in abattoirs in Nigeria.

Table 4 shows that majority (38.3%) of abattoir workers in Ogun state earned annual income between ₦1,049,075.00 and ₦4,919,800.00 which indicated that these workers might have access to fund either from government, banks or cooperative societies as loan to invest in animal slaughter business as reported by Adekunle and Ajani (1999) which might have helped them to boost their investments and profit as well as sustainability in the business.

Table 2: Distribution of respondents by age and sex (N = 120)

Parameter	Frequency	Percentage (%)
Age		
21-30	47	39.2
31-40	28	23.3
41-50	20	16.7
51-60	15	12.5
Above 60	10	08.3
Total	120	100.0
Sex		
Male	62	51.7
Female	58	48.3
Total	120	100.0

Table 3: Distribution of respondents by level of education, religious affiliation and marital status (N=120)

Parameters	Frequency	Percentage (%)
Level of education		
No formal education	24	20.0
Primary education	32	26.7
Secondary education	44	36.7
Tertiary education	15	12.5
Post Graduate education	05	04.2
Total	120	100.0
Religious affiliation		
Christianity	26	21.6
Islam	59	49.2
Traditional	35	29.2
Total	120	100.0
Marital status		
Single	35	29.2
Married	42	35.0
Divorced	25	20.8
Widowed	18	15.0
Total	120	100.0

Table 4: Distribution of respondents by their annual income (N=120)

Income (₦)	Frequency	%
95,863.00	24	20.0
95,863.00– 958,637.00	30	25.0
1,049,075.00– 4,760,630.00	46	38.3
4,854,685.00– 9,521,260.00	16	13.3
Above 9,521,260.00	04	3.4
Total	120	100.0

Table 5: Distribution of respondents by working conditions (N=120)

Workers condition	Frequency	%
Do you employ workers		
Yes	80	66.7
No	40	33.3
Total	120	100.0
If yes, number of workers employed		
2-4	56	46.7
5-10	45	37.5
Above 10	19	15.8
Total	120	100.0
If no why?		
(i) Workers are not available	19	15.8
(ii) Inadequate fund to employ workers	62	51.7
(iii) Use of family workforce	39	32.5
Total	120	100.0
Do workers put on apron and glove?		
Yes	30	25.0
No	90	75.0
Total	120	100.0

Table 5 shows the results of information on working conditions at abattoirs in Ogun state. Majority (66.7%) of abattoir workers agreed that they employed some labourers to assist them in their work apart from the working force from the spouses and (46.7%) also agreed that they employed 2-4 helping hands. However, majority of the workers declined employment of additional hands due to inadequacy of fund to pay them perhaps there was a sizeable family workforce (32.5%) to render needed assistance at the abattoir. The majority (75.0%) of the workers submitted that workers at the abattoir were not accustomed to putting on either apron or shoes during operations as a result of lack of hygiene orientation at the abattoir which confirmed the report of Taiwo and Adeoye (2002) who reported on variations in slaughter house management and their effects on small ruminants products in Ogun state.

Table 6: Distribution of respondents by information, perception and management on abattoirs environments (N=120)

Information	Frequency	%
How long is this abattoir being used		
1-2 years	3	2.5
3-5 years	12	10.0
6-10 years	45	37.0
Above 10 years	60	50.0
What are the sources of water to this abattoir?		
Pipe borne water: Regular	15	12.5
Irregular	32	26.7
Well water	30	25.0
Rain water	28	23.3
Running water	15	12.6
Do you carry out sanitation in this abattoir?		
Yes	64	53.3
No	56	46.7
How often do you carry it out?		
Daily	05	04.2
Weekly	15	12.5
Fortnightly	45	37.5
Monthly	55	45.8
Does government maintain this abattoir?		
Yes	75	62.5
No	45	37.5
How often is maintenance done?		
1-2 years	25	20.8
3-5 years	60	50.0
Above 5 years	35	29.2
How do you rate facilities in this abattoir?		
Adequate	22	18.3
Fairly adequate	38	31.7
Inadequate	60	50.0
How do you perceive the condition of this abattoir environment?		
Excellent	0	00.0
Very good	16	13.3
Good	25	20.8
Fair	45	37.5
Poor	34	28.4

Table 6 shows that majority (50.0%) of abattoir workers in Ogun state agreed that the abattoirs at which they were working had been put into use more than 10 years, while the majority (26.7%) submitted that treated pipe borne water supply at abattoirs was irregular, therefore majority (25.0%) of the workers resorted to use dug well water which could be contaminated instead which was relatively steady in supply at abattoirs in Ogun state. Majority (53.3%) of workers did carry out sanitation exercise which includes physical removal of solid waste and washing of slaughter slabs and tools at abattoirs and majority (45.8%) did this on monthly basis. Although majority (62.5%) of workers agreed that Ogun state government carried out maintenance services on the abattoirs, but majority (50.0%) of workers reported that it took

government 3 to 5 years interval before carrying out the turn out repairs. Also, majority (50.0%) of abattoir workers in Ogun state rated the facilities in the abattoirs as inadequate and the majority workers gave fair perception of abattoirs environment and maintenance in Ogun state. The results obtained in this study buttressed the findings of Joseph (1999) and Adeyemo *et al.* (2009).

Table 7: Distribution of respondents by information on veterinarians /animal health officers visit to the abattoirs (N=120)

Information	Frequency	%
Do veterinarians/animal health officers visit this abattoir?		
Yes	65	54.2
No	55	45.8
How often do they visit?		
Daily	40	33.3
Weekly	32	26.7
Fortnightly	20	16.7
Monthly	15	12.5
Quarterly	09	7.5
Twice a year	04	03.3
Yearly	0	-
Do veterinarians/Animal Health officers do condemn animals/ carcasses on parts of carcasses?		
Yes	61	50.8
No	59	49.2
Does government give compensation to processors?		
Yes	34	28.3
No	86	71.7

Table 7 shows the results of information on the veterinary and animal health officers visitation to abattoirs in Ogun state. Majority (54.2%) of the workers indicated that there were visitation to the abattoirs by the veterinarians and animal health officers. Also, the majority (33.3%) of the workers indicated that the visitations were made on daily basis and majority (50.8%) agreed that veterinary and animal health officers did condemn or withdraw live animals and carcasses as well as organs after inspection and found them unfit for slaughter and unsafe for human consumption (Joseph *et al.*, 1999). However, majority of abattoir workers agreed that government would not normally give compensation to meat processors at the abattoirs in case of condemnation of their carcasses, any part of the carcass or organs. These results were in agreement with the recommendations of Food and Agricultural Organisation (FAO, 2001) except that the government has not been fulfilling the latter part of the recommendations by compensating the abattoir workers (meat processors).

Conclusion

This study was conducted to assess socio-economic characteristics of meat processors and their perception of abattoirs management in Ogun State, Nigeria. It was observed that most abattoir workers in Ogun state were very agile and married. Male secondary school literates might have access to loan facilities with two to four helping hands on the job. The abattoirs were old and their maintenance by government was grossly inadequate. The meat processors in the state therefore rated the abattoirs as only been fair. Though the inspection officers carried out their assignments at the abattoirs, compensations were not paid to the affected meat processors

by the government. Hence, it is recommended that the government should encourage more youth to take up work at the abattoir by granting them loan facilities and should take proper, prompt, adequate and regular care of the abattoirs in order to turn out wholesome and safe meat for public consumption.

Conflict of Interest

Authors declare that there is no conflict of interest in this study.

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