

SOCIO-ECONOMIC CHARACTERISTICS AND MAJOR CONSTRAINTS AFFECTING THE PRODUCTION OF PIGS IN SOUTHERN KADUNA

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ABSTRACT

The study was conducted to determine socio-economic characteristics and major constraints affecting the production of pigs in southern Kaduna. One hundred (100) structured questionnaire were administered across the study area to obtain data on socio-economic characteristics and major constraints affecting the production of pigs. Data collected were analysed using simple statistics (frequency and percentage) of the SPSS software version 23. Socio-economic characteristics of pig farmers collected from a population of 100 respondents showed that 24 percent were between age 30 and 40; 23 percent were between the age 41 and 50; 30 percent were between age 51 and 60 while 31 percent of them were males while 69 percent were females. Data collected from 100 respondents revealed that farmers, civil servants, livestock traders and others were 38, 24, 6 and 32 percent, respectively. 63% of the respondents were married, 11 percent were single and 26 percent were widow/widowers. The pig producers were confronted with the major challenge of keeping records and monitoring feed quality. 62 % of the pig farmers were faced with the problem of insufficient capital. The socio-economic characteristics of pig farmers in Southern Kaduna indicate a predominantly mature and female demographic, with significant challenges related to insufficient capital and availability of feed. To enhance pig production in the region, it is recommended that targeted financial support programs be established, alongside training initiatives focused on feed among farmers.

Keywords: Socio-economic, Pig production, Southern Kaduna, Constraints.

INTRODUCTION

The production of pigs in Nigeria is influenced by different demographic characteristics and significant constraints that shape the industry. Southern Kaduna is characterized by a diverse population engaged in smallholder pig farming, primarily for subsistence and economic purposes. The demographic profile of pig farmers reveals that a majority are within the active age group of 30 to 50 years, with a notable male predominance (approximately 67%) and a significant proportion being married (Ezeh and Michael, 2019). These socio-economic factors play a crucial role in determining the productivity and sustainability of pig farming practices in the area. Despite the potential profitability of pig production-evidenced by studies showing gross margins and returns on investment indicating financial viability-farmers face numerous challenges that hinder optimal production. Major constraints include lack of capital, high labor costs, inadequate housing facilities, limited access to financial resources, and high feed prices (Ume *et al.*, 2020). Additionally, health challenges such as diseases (e.g., *Brucellosis* and African swine fever) further exacerbate production issues, leading to increased mortality rates among pigs (Ume *et al.*, 2020). Consequently, addressing these demographic characteristics and constraints is essential for enhancing the productivity of pig farming in Southern Kaduna, ensuring food security, and improving the livelihoods of local farmers.

MATERIALS AND METHODS

Location of the study

The study was carried out at Southern part of Kaduna State, Nigeria. The study area is predominantly a Christian dominated area where pig production and consumption is not prohibited. The study area comprised of nine local governments, (Jaba, Jema'a, Kaura, Sanga, Zangon Kataf). The area is located between latitude 09° and 11°N and longitude 06° and 09° E. the area has an estimated population of 4,564,100 people. The main annual temperature varies between 24°C and 28°C. The vegetation consists of Northern Guinea savannah in the North and Southern Guinea savannah in the South. The length of rainfall varies from 150 days in the north and 190 days in the southern part. The annual rainfall varies from 1107 mm in the north to 1286 mm in the south. Relative humidity is low ranging between 60 and 80% in July. The location was purposively chosen for the study because major economic activity of the inhabitants is farming, pig production and trading. The areas are also a known potential pig markets in the state. The study area occupies a major position in the agricultural economy of northern Nigeria.

Sampling procedure and sample size

Purposive and multi-stage random sampling techniques were used to select Local Government Areas (LGA), communities, villages and respondents. The selected LGAs were Jaba, Jema'a, Kaura, Sanga, Zangon Kataf. The

total of one hundred pig farmers were randomly selected from five randomly selected LGAs in the Southern Kaduna Agricultural zone and used for the experiment. 20 pig's farmers were randomly selected from each of the five LGAs and used to assess demographic characteristics and major constraints affecting the production of pigs in southern Kaduna. One hundred structured questionnaires were used to obtain data according to LGAs.

Data collection

Data was collected on general information of the pig farmers and major constraints affecting the production of pigs in the sampled areas. The information used for this study was obtained from primary sources. The primary data was deduced using structured questionnaires.

Statistical Analysis

Data collected was subjected to descriptive statistics of the SPSS statistical software v23 and frequency and percentage were determined.

RESULTS AND DISCUSSION

Table 1 showed the socio-economic characteristics of pig farmers collected from a population of 100 respondents. For age, 24 percent were between age 30 and 40; 23 percent were between the age 41 and 50; 30 percent were between age 51 and 60; and 14 percent of the farmers were above 60 years of age while 31 percent of them were males while 69 percent were females. Data collected from 100 respondents revealed that the percentage of pig farmers in the southern Kaduna for farmers, civil servants, livestock traders and others were 38, 24, 6 and 32 percent, respectively. 63% of the respondents were married, 11 percent were single and 26 percent were widow/widowers. Out of the respondents, none was divorced.

Household size: 38% of the respondents had the household size between 1 and 5; 41 percent were between 6 and 10; 19 percent were between 11 and 15; 2 percent were between 16 and 20. No data recorded for above 20 household size amongst the pig farmers.

For level of education, nine percent of the respondents had no formal education; 21 percent had primary; 39 percent had secondary; 13 percent had OND; six percent had HND; 11 percent were first degree holders and one percent was a Master's degree holder. The results imply that females were more actively involved in pig production than males. This is in disagreement with the findings of Ogunniyi and Omoteso (2011) who reported the dominance of males in their work on pig production in Oyo State. On age, the results showed that 30.0% of the respondents fell within the age bracket of 51-60 years of the pig farmers. This result agrees with the findings of Ajala and Adeshinwa (2007) in Southern Kaduna area of Kaduna State. Indigenous pig production characteristics and management practices is a function of an animal protein source (Ajala, *et al.*, 2007). The demographic characteristics also play a great role in raising the pig. It could be deduced that the highest frequency of pig farmers is recorded for those within the age range of 51 and 60 years old. This could be as a result of them preparing for their retirement, especially those of them who work with the government, to have something to fall back on. Age of the farmers of 30 years and below recorded the lowest value. Reason to this is very close to the fact that most of the children would still be in school, having the time to practice swine production may be minimal. In the case of gender of the farmers, it was recorded that 69 percentage of the farmers were females. This revealed that pig production is women business in the southern part of Kaduna. Most of the women are crop farmers, so they have pigs to take care after they must have finished working on their farms. Agribusiness is very low as 6 percent of the farmers are livestock traders. The percentage of the farmers who practice pig production is similar to the percentage of civil servants who practice pig production in the surveyed area. The highest percentage of the pig farmers were married as a value of 63 percent was recorded. 11 percent were single due to the fact that most of the youth in the surveyed area had the option to do other thing apart from swine production. The household size of 6-10 of pig producers recorded the highest frequency. Most of the pig farmers were secondary school holder. This could be as a result of early marriage after the completion of secondary school.

Table 2 reveals information on major constraints and challenges affecting the production of pig farmers. Information was collected from 100 pig farmers. 62 percent had insufficient capital; 4 percent had a problem in procurement of animals; 33 percent on availability of feed and 1 percent on erratic government policy. For challenges of record keeping, coordination of supply and transportation, monitoring of feed quality, good knowledge of personnel management, development of preventing maintenance programme for animals and handling of stakeholders taxes were 29, 10, 28, 22, 10 and 1 percent, respectively. Insufficient capital has always been a constraint in animal production, as fund is required in procuring animals and feeding them. They are not concerned by the erratic government policy as most are not even aware of the regulatory body. Poor keeping of record is the major challenge faced by the farmers. The case is also similar in monitoring the quality of feed. Most of the farmers are not facing challenges in handling of the stakeholder-taxes. Insufficient good knowledge of personnel is also a challenge.

The results highlight the major constraints faced by pig farmers in Southern Kaduna, revealing that 62% of respondents reported insufficient capital as their primary challenge, significantly impacting their ability to procure animals and feed them adequately. Other notable constraints included 33% citing feed availability issues and 4% facing difficulties in animal procurement, while only 1% mentioned erratic government policies as a concern, indicating a general lack of awareness regarding regulatory frameworks among farmers (Ezeh and Michael, 2019).

Table 1: Socio-economic characteristics of pig farmers (n=100)

Socio-economic characteristics	Frequency	Percentage
Age		
<30	9	9.0
30-40	24	24.0
41-50	23	23.0
51-60	30	30.0
>60	14	14.0
Sex		
Male	31	31.0
Female	69	69.0
Occupation		
Farmer	38	38.0
Civil servant	24	24.0
Livestock trader	6	6.0
Others	32	32.0
Marital status		
Married	63	63.0
Single	11	11.0
Widow/widower	26	26.0
Household size		
1-5	38	38.0
6-10	41	41.0
11-15	19	19.0
16-20	2	2.0
>20	-	-
Level of education		
No education	9	9.0
Primary education	21	21.0
Secondary education	39	39.0
OND	13	13.0
HND	6	6.0
BSc.	11	11.0
MSc.	1	1.0

n: Number of correspondents; OND: Ordinary National Diploma; HND: Higher National Diploma; BSc: Bachelor of Science; MSc: Master of Science

Table 2: Information on major constraints and challenges affecting the production of pig farmers (n=100)

Major constraints	Frequency	Percentage
Insufficient capital	62	62.0
Procurement of the animal	4	4.0
Availability of feed	33	33.0
Erratic government policy	1	1.0
Keeping of record	29	29.0
Coordinate supply and transportation	10	10.0
Monitoring of feed quality	28	28.0
Good knowledge of personnel management	22	22.0
Development of preventive maintenance	10	10.0
Handling of stakeholders-taxes	1	1.0

n: Number of correspondents

Additionally, challenges related to record keeping (29%), monitoring feed quality (28%), and personnel management (22%) were prevalent, suggesting that many farmers lack the necessary technical knowledge and organizational skills to optimize their production processes effectively which is similar and in agreement with the observation of Ezeh and Michael (2019) on socio-economic analysis of smallholder pig production in Sabon Gari local government area, Kaduna state, Nigeria.

CONCLUSION AND RECOMMENDATION

Pig farmers in Southern Kaduna are primarily mature and female, and there are major challenges related to lack of capital and availability of feed. The results suggest the need for targeted financial support programs to develop pig production in the region, as well as training initiatives aimed at improving record-keeping practices and feed quality control systems among farmers.

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