

Full Length Research Paper

Nigerian Pig Production Restrictions: An Analysis of Edo State's Central Agricultural Zone

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This The study looked at the limitations on pig production in Edo State's Edo Central Agricultural Zone. In order to gather data, 41 private pig farmers in the research region were given interview schedules. Multiple regression and descriptive statistics were employed to analyze the study's data. The findings indicated that men made up the majority of pig producers (85.4%). Small-scale farmers, who made up 58.4% of the farms polled, kept between 1 and 50 pigs, medium-sized producers kept between 51 and 100 pigs (15%), and large-scale producers kept more than 100 pigs (26.6%). Among the pig farmers in the research area, the two biggest challenges were the high cost of feed and feed additives (46.3%) and the difficulty of obtaining institutional loans (61.0%). Farmers' profits from pig production were significantly impacted by flock size ($t = 3.313$; $p = 0.002$). The government and those involved in Edo State's livestock sector should create and effectively administer an institutional credit program to encourage pig production.

Key words: Pig financing; Government assistance; Livestock sector; Pork.

INTRODUCTION

The Nearly a billion people rely on livestock for their livelihoods and food security, and they account for 40% of the value of agricultural output worldwide. The cattle industry is one of the agricultural economy's fastest-growing sectors, propelled by rising incomes and bolstered by structural and technical advancements. Opportunities for agricultural development, poverty alleviation, and improvements in food security are presented by the sector's expansion and change [1].

An essential component of the livestock subsector within the broader agriculture sector in Nigeria is the pig industry. Among other species, the production of pork has a significant potential to generate significant financial benefits [2]. Because of their distinct advantages over other animals, pigs are a desirable species to breed in large quantities to help address protein shortages [3]. These benefits include their rapid development rate, which is only marginally surpassed by the best, well-managed broilers, and their prolificacy, which is unmatched by any other animal species save birds. Additionally, the meat of pigs is soft and higher in protein and B-vitamins than that of most other animals, and they are highly efficient at using their feed, which results in superior returns per unit of inputs [3].

Nigerian pig production is still in its infancy compared to those of ruminants and poultry [4]. According to a study by [5], issues with acceptance and management are to blame for the swine industry's neglect or sluggish expansion. The management issues include disease outbreaks, feed efficiency, and high feed costs, which are caused by a lack of expertise in swine production [6], as well as the fact that Nigerian stockmen frequently lack knowledge of new methods. Low stock-to-human ratios, low animal productivity, scarce resources, and low animal protein intake—which leads to malnutrition—are the consequences that result from this. Additionally, [7] noted that the operators' educational attainment, the overall cost of production, and their access to research and extension services are some of the main barriers to the output of piggery entrepreneurs. It is impossible to ignore the trend of some business owners quitting because of one or more of the issues stated above. Given the foregoing, the purpose of this study was to investigate the pig production limits in Edo State, Nigeria's Edo Central Agricultural Zone. The study specifically aimed to:

- a. Explain the socioeconomic traits of the respondents; and
- b. Look at the difficulties pig producers confront.

The study's hypothesis was that socioeconomic factors had no discernible impact on farmers' financial gains from the pig farming industry.

MATERIALS AND METHODS

This study was conducted in southern Nigeria's Edo State. Edo Central, Edo North, and Edo South are the three

agricultural zones that make up the state. Due to their dominance in pig production, three local government areas (LGAs) in the Edo Central agricultural zone were included in this study. Esan West, Esan Central, and Esan North East LGAs are these.

Respondents were chosen using the stratified sampling technique. 20 pig farmers from Esan West, Esan Central, and Esan North East Local Government Areas were chosen at random from the records of pig farmers in the Agricultural Development Programme (ADP) zonal office. Thus, 41 respondents made up the study's entire sample size. Interview schedules were employed to collect the data. The information gathered included socioeconomic traits, management techniques, labor availability and utilization, land availability and use, and issues faced by pig producers. Multiple regression, percentages, and descriptive statistics were used to analyze the data.

RESULTS AND DISCUSSION

Respondents' socioeconomic characteristics

Males made up the majority of the responders. This could be explained by the fact that men are more suited than women to perform laborious tasks related to farming [8]. This is not to say that females in the research area did not play a significant role in pig production. In this study area, women were typically employed as laborers or assistants in minor agricultural tasks like feeding, watering, or cleaning the pigpen. 17.1% of pig farmers can be considered elderly if old farmers are regarded as those who are over 50. Farmers were 40 years old on average. In contrast, the average age of farming households in southern Nigeria is 49 years old, according to the findings of [9]. It is implied that the farmers in the study were still of working age and could combine and use the knowledge they had gained about pig farming. According to their individual studies, the majority of Nigerian farmers are married, as indicated by the majority of respondents being married [10,11]. This demonstrates that married individuals control the majority of the local pig population. Married farmers may have additional family members to care for and assist with the pigs on their farms. The respondents' level of literacy is really high. Farmers who have a strong educational background may find it easier to preserve farm records, read prescriptions for vaccines, embrace innovations, and perform other management tasks that guarantee productivity.

The majority of the farmers had fewer than five years of agricultural experience, which suggests that the farmers in the sample were still relatively new to the industry. This conclusion contrasts with that of [3], who found that over 70% of pig farmers had more than five years of experience. Additionally, 26.8% claimed to have obtained their capital from personal savings, and 31.7% claimed to have obtained

their capital from thrift societies. This might be as a result of the low collateral requirements for evaluating credit from non-institutional credit sources such as personal savings and thrift societies, which mostly consist of retained gains from prior earnings. The study also shows that the farmers are small-scale producers, which means their flocks are often small. Due to their subsistence-level operations, small-scale farmers are more vulnerable and less equipped to own and run big farms. Furthermore, one of the biggest obstacles to farmers expanding their farms is their inability to obtain funding from banking organizations. However, because they worked part-time as pig farmers, the majority of the farmers had other sources of income. Seven people lived in the average household. Given that it exceeds the national average of roughly five people in rural Nigeria, the respondents' household size may be regarded as above average [12]. It may be advantageous to employ this high number of households as a source of labor for family farms. Larger households have advantages, but they may also result in fierce rivalry for scarce resources, such as food and household income. On their farms, farmers increased the number of huge white/Yorkshire cattle. Because huge white/Yorkshire breeds are extremely common, disease-resistant, and frequently utilized to improve local breeds, this is theoretically valid [13].

Constraints Faced by Pig Farmers

The study's findings highlight the limitations that participants faced. Among other factors, the cost of feed and feed additives (46.3%) came in second, followed by the difficulty in obtaining institutional loans (61.0%). The two biggest obstacles that farmers in the survey had to deal with were disease outbreak (17.1%) and theft (14.6%). Farmers may be prevented from increasing their output size by inadequate funding. According to [14,3] and [15], capital is one of the main obstacles facing the livestock business, particularly in emerging nations like Nigeria. Financial deficiencies have caused the animal production sectors to either stagnate or grow slowly, or perhaps to be completely destroyed. The low-wage workers who control the animal business are unable to meet industry needs, particularly when output is below optimal levels. Pork production may be hampered by the arbitrary cost of feed and feed ingredients [16]. Profitability in pig farming is also significantly impacted by feed costs and feed ingredient prices. Profits can be swiftly turned into losses due to rising feed prices [17]. Manure from cattle and poultry, bedding and litter, waste water, runoff from feedlots, and even leftover feed are examples of animal wastes [18]. Animal waste is abundant when farm animals produce an excessive amount of waste in a given area without any safe or economical way to either dispose of the trash over time or use it effectively [19]. Effective handling of animal waste has an overall impact on the

environment. If appropriate procedures are not followed, these wastes may have an impact on the quality of the air or water [20]. Unprotected animal concentrated waste might wash into neighboring waterways. Therefore, it is important to carefully and consistently dispose of animal waste to minimize wastes that release strong, unpleasant odors and to prevent favorable habitat for microorganisms, which may facilitate the transmission of illnesses [21].

Assistance Needed from Government

The result shows that all respondents needed government support financially through soft loans, 29.3% and 26.8% needed government assistance with regards to the provision of water and accessible roads. Electricity 12.2% ranked lowest.

The development of agriculture is significantly influenced by agricultural credit [22]. Agricultural household models indicate that uncertainty about output levels and the time lag between inputs and output, in addition to the restrictions of self-finance, demand farm credit [23]. Water supply distribution is a crucial problem, as localized locations have varying levels of water supply adequacy [24]. Unfortunately, access to high-quality water is a variable in some parts of Nigeria, where the availability of water limits the production of pigs. Maintaining the distribution of products, both manufacturing and consumption items, and factors of production from one location to another depends heavily on road infrastructure [25]. Road rehabilitation may also raise the output pricing that pig producers receive. Furthermore, road restoration improves the number of times extension agents visit pig producers, which boosts output [26]. To raise pigs, farmers in the research required little power.

CONCLUSION

There is ample potential for growth in commercial pig production in the study area. These potentials will be tapped if problems facing pig farmers in the area are properly handled by government and stakeholders in the livestock sector in Edo State. From findings in the study, institutional loan scheme to promote pig production should be established and properly managed by state government and stakeholders in the livestock industry. The piggery entrepreneurs could do better if an enabling environment that improve their value of stock, farm size and access to credit is created. These would enhance their capitalization capacity, imbue stability in the business operation, thus alleviating poverty. Furthermore, government and stakeholders should sensitize the citizens on the need to consume pork to meet up with daily protein requirement. Good roads and other social infrastructures should be provided to improve linkage between farm and market.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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