

Challenges faced by hog raisers in San Jose, Occidental Mindoro

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ISSN: 2243-7770
Online ISSN: 2243-7789

OPEN ACCESS

Received: 30 November 2023

Revised: 20 December 2023

Accepted: 31 December 2023

Available Online: 31 December 2023

DOI: 10.5861/ijrsm.2023.1152

Abstract

The purpose of this research includes identifying and understanding the various challenges faced by hog raisers in San Jose Occidental Mindoro and exploring potential solutions to improve their productivity and profitability using thematic analysis. The researchers employed interview questions with the five medium-scale entrepreneurs involved in commercial and backyard pig farming, residing in San Jose, who were the primary participants of this study as a means to carry out qualitative research. Based on the interview results, the five significant challenges faced by respondents are the pig's health and disease, poor marketing system, lack of capital, environmental concerns, and economic challenges. Furthermore, to overcome these problems, the hog raisers typically devise various coping strategies such as maintaining pig health and preventing diseases, finding alternative marketing channels, seeking additional capital, mitigating environmental concerns, and diversification strategies. Thus, to deal with the economic difficulties, the respondents employed various diversification strategies, such as utilizing alternate feeds, particularly the madre de agua plant, to reduce production costs; and producing tocino and longganisa to differentiate their product offerings. In addition, by addressing these five challenges identified, stakeholders within the hog-raising industry can work towards developing strategies that enhance marketing systems, promote sustainable practices, improve economic viability, and prioritize pig health management. Therefore, this study recommends implementing effective disease prevention measures, veterinary support systems, and proper biosecurity protocols to ensure the overall well-being of pigs and mitigate potential outbreaks promoting eco-friendly practices, and adhering to relevant regulations can contribute to minimizing the environmental impact of hog raising.

Keywords: challenges, coping strategies, hog raisers, Occidental Mindoro, interview

Challenges faced by hog raisers in San Jose, Occidental Mindoro

1. Introduction

Hog raising has been a significant aspect of agriculture in the Philippines, contributing extensively to the country's economy and providing livelihoods for farmers. Swine farming, as described by the Swine Situation Report (2023), is the growing and breeding of domestic pigs primarily to produce food such as pork products and bacon, as well as for their skin. The practice of hog raising includes the provision of suitable housing, nutrition, and healthcare measures to promote the welfare and optimal development of pigs. Farmers employ a meticulous process of selecting breeding stock based on specific characteristics including size, weight gain, and resistance to diseases. In addition, the pigs' diet is closely monitored to ensure the attainment of a well-balanced nutritional intake. Moreover, PSA -Swine Situation Report (2023) reports that as of June 30, 2023, the country's swine population was predicted to be 10.07 million. The current count of heads is 1.4 percent greater than the count from the same period in the previous year, which was 9.94 million. Approximately 67.5 percent of the nation's swine population originated from smallholder farms, while the remaining 29.2 percent and 3.2 percent were sourced from commercial and semi-commercial farms, respectively (Philippine Swine Update, 2022). Furthermore, as of 30 June 2023, CALABARZON has documented the largest swine population, with 1.30 million individuals. Central Visayas and Northern Mindanao had inventories of 1.17 million and 1.12 million heads, respectively. During the era, these three regions collectively comprised 35.6 percent of the country's whole swine population. According to the Swine Situation Report (2023), during this quarter, the average price of hogs for slaughter at the farmgate was 169.73 pesos per kilogram for the liveweight. Compared to the same quarter of the previous year, the current figure represents a decline of 5.1 percent compared to the quotation of 178.86 pesos per kilogram for the liveweight. The farmgate price reached its peak in June 2023, with an average of 171.85 pesos per kilogram for the liveweight. The lowest average farmgate price was seen in May, amounting to 168.32 pesos per kilogram for the liveweight.

The method of hog raising has seen significant transformations throughout the years, due to advances in technology and the adoption of more sophisticated farming techniques (Wang et al., 2022). According to them, modern hog production facilities in other parts of the country have been equipped with automated feeding systems, climate control mechanisms, and systems for handling waste to enhance productivity and minimize negative environmental effects. Despite the progress observed in neighboring provinces, the majority of hog production facilities in San Jose, and Occidental Mindoro continue to adhere to conventional techniques. The practice of backyard pig-raising remains widespread. But, just like modern facilities, small-scale hog raisers had to deal with different challenges in their line of business that could have significant effects on their productivity and profitability. These challenges include factors such as disease outbreaks, fluctuating market prices, rising production costs, and regulatory compliance. Thus, the purpose of this research includes identifying and understanding the various challenges faced by hog raisers in San Jose Occidental Mindoro; and exploring potential solutions to improve their productivity and profitability.

1.1 Research Objectives

The key objectives of this study were to (1) identify and analyze the various challenges encountered by the hog raisers in San Jose, Occidental Mindoro and (2) evaluate the strategies used by hog raisers in San Jose, Occidental Mindoro.

1.2 Significance of the Study

This study aimed to identify the challenges faced by hog raisers in San Jose, Occidental Mindoro, thus this study holds great significance in understanding and addressing the issues within the industry. This study has the

potential to provide significant benefits for the following industries: Entrepreneurs who raise hogs can identify important areas for improvement and devise effective tactics to tackle them. Future hog raisers – they will get ideas regarding the potential risks that may arise in their future business. Local Government Unit – they will be aware of the challenges faced by hog raisers of San Jose, and Occidental Mindoro, and can collaborate with stakeholders to improve market opportunities for the pig farmers. Agricultural sector of the government of San Jose, Occidental Mindoro – they can contribute to the development of effective policies that support hog raisers in overcoming challenges, enhancing their competitiveness, and ensuring sustainable growth in this industry. Customers will be more knowledgeable about the factors influencing the cost of pork and pig-related goods. Future researchers – this study will provide valuable assistance to researchers who specialize in the field of hog raising.

1.3 Scope and Delimitation of the Study

This study primarily focused on identifying the various challenges faced by hog raisers in the locality of San Jose, Occidental Mindoro, as well as evaluating the strategies employed by this sector in overcoming these obstacles. The study was conducted in the current academic year 2023-2024. The respondents of this study include five hog raisers from San Jose, Occidental Mindoro. However, it is important to acknowledge that this study had certain limitations. Firstly, the study was conducted within a specific area, the San Jose, Occidental Mindoro, which may limit the generality of the findings to other locations. Secondly, due to time constraints, it may not be possible to investigate every single challenge faced by hog raisers comprehensively. Lastly, some respondents were not willing to answer directly the prepared interview questions however the researchers did their best to gather the needed data.

2. Methodology

Research Design - The research design employed in this study is a qualitative method. The researcher aimed to analyze the data in a case study method. This method is a learning technique in which the researcher faces a particular problem or case. As cited by Baxter (2008), the case study facilitates the exploration of real issues within a defined context, using a variety of data sources. By conducting in-depth interviews, the researcher can delve deeply into the experiences, perspectives, and insights of hog raisers. This qualitative method enables a rich examination of the various challenges encountered within this industry. Through these interviews, the researcher aims to gather first-hand accounts from hog raisers themselves, gaining valuable insights into their day-to-day operations, challenges they face, and potential solutions. This approach facilitates a greater understanding of the complexities surrounding hog raising and provides a platform for participants to share their experiences openly.

Respondents of the Study - The researcher identified the target population, which in this case study were the hog raisers of San Jose, Occidental Mindoro. The study utilized a non-probability purposive sampling technique, with samples selected based on the researcher's expert opinion regarding suitable characteristics. This study employed an interpretative and evaluative case study approach, utilizing in-depth interviews to investigate the challenges faced by hog raisers in San Jose, Occidental Mindoro. Five (5) medium-scale entrepreneurs involved in commercial and backyard pig farming, residing in San Jose, Occidental Mindoro, were the primary participants of this study. The researcher also selected two (2) experts, a veterinarian, and a technician, as secondary participants and proceeded to conduct comprehensive interviews with them to assess the accuracy and validity of the information collected from the five hog raisers.

Research Instrument - In this study, the researcher employed interview questions as a means to carry out qualitative research. By analyzing the primary respondents' responses, the researcher explored alternative ways to lessen the difficulties experienced by hog raisers and developed a more excellent grasp of those difficulties. To enhance the validity and accuracy of the interview results and minimize potential biases in the research, the study also utilized the technique of data triangulation by conducting comprehensive interviews with the

secondary respondents.

Data Gathering Procedure - As part of the primary data-gathering procedure, a comprehensive face-to-face interview was conducted with five primary respondents. The hog raiser was invited to participate through a letter of intent, and interviews were scheduled based on their availability. After decoding the concepts from the primary information, a second round of interviews with secondary respondents was conducted to clarify and confirm the gathered data. During the actual interview process, researchers employed probing questions to encourage respondents to share detailed information about their experiences.

Data Analysis - In this case study, the researcher employed thematic analysis to analyze and examine the collected data, aiming to identify consistent patterns related to the specified period. It's crucial to note that thematic analysis is inherently subjective and relies on the researcher's judgment, necessitating careful reflection on choices and interpretations (Caulfield, 2023). The process involved comparing various concepts and opinions expressed by participants during interviews. Additionally, the researcher analyzed data collected from related studies, employing thematic analysis to draw connections between emerging themes. Consequently, the thematic analysis provided a comprehensive method for uncovering numerous connections within the data, enhancing the understanding of prevalent patterns and themes.

3. Results and Discussions

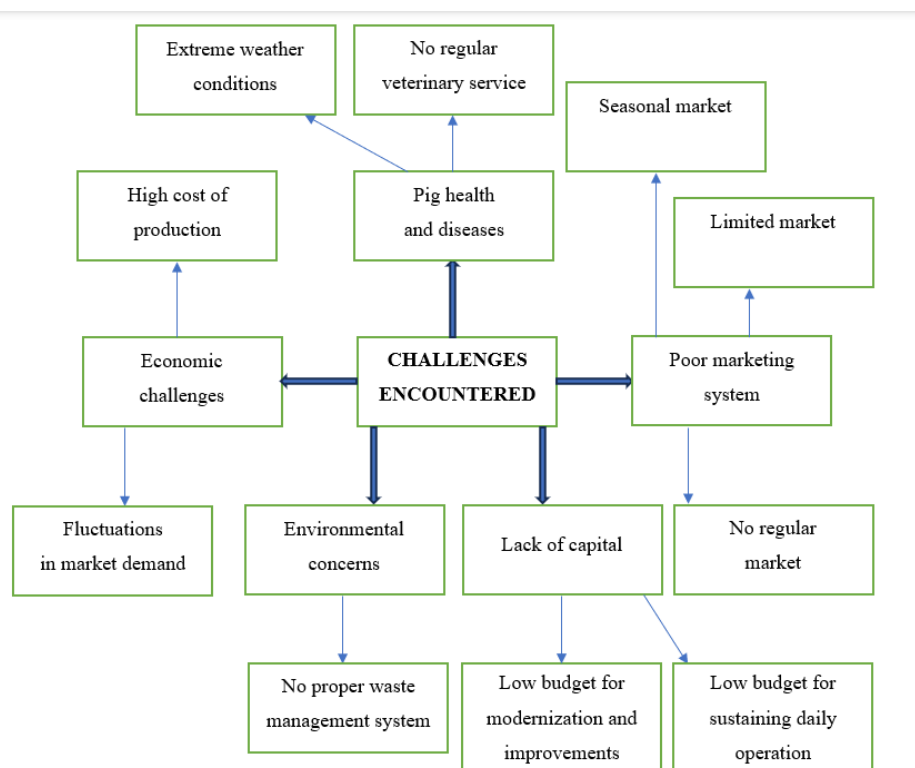


Figure 1. Thematic diagram of challenges encountered by hog raisers in San Jose, Occidental Mindoro

Figure 1 shows the interview results of the study using thematic analysis. Based on the findings, the following are the problems faced by hog raisers in San Jose, Occidental Mindoro. The respondents identified the pig health and disease, difficulties as the key ones, and continued to be persistent concerns in the sector. The challenges were attributed to the absence of regular veterinary services and the adverse effects of extreme weather conditions. Cough and colds are very common during the rainy season. Pigs are vulnerable to heat stress in hot weather, resulting in reduced feed consumption, decreased growth rates, and potentially fatal outcomes in

severe instances. The findings of the study are supported by Pearce et al. (2013) investigating the impact of heat stress on the intestinal anatomy of pigs. The study showed that subjecting the body to a temperature of approximately 35°C for 24 hours had a profound detrimental effect on the protective function of the intestines, as well as causing a notable increase in the amounts of endotoxins in the bloodstream. According to the authors, pigs experience a significant weakening of their intestinal defense systems when subjected to heat stress, even for a short period of two to six hours. This creates a chance for infection since dangerous bacteria can more easily infiltrate the body. Hence, inadequate sanitary conditions might lead to the development of secondary infections due to heat stress. On the other hand, according to Nathues et al. (2017), respiratory disease remains a major economic and health concern in the pig industry worldwide. In addition, the potential occurrence of a viral outbreak poses a significant risk to the overall health of pigs. The good thing is, according to Sy-Gorembalem (2023), Occidental Mindoro remains ASF-free.

In addition, the respondents often struggle with limited access to effective distribution channels and face difficulties in reaching regular buyers or markets. Moreover, at specific periods throughout the year, there can be a decline in the demand for pig products, leading to reduced pricing and a possible surplus of supply. According to Maharjan & Fradejas (2005), the marketing of pigs is a problem for non-cooperative raisers when they have an inadequate number of buyers for their over-produced quantity of pigs. The longer the marketable pigs remain in the pen, the greater will be their feed consumption and the corresponding production costs. Moreover, the interview revealed that insufficient capital is one of the challenges faced by the respondents. This scenario constrains their capacity for modernization and improvement. It also affects their day-to-day operations. Ryzhkov (2023) emphasizes the significance of finance and funding in initiating and developing a hog-raising enterprise. Establishing a robust financial base is crucial for achieving success in this particular field. Lack of sufficient finance poses difficulties in acquiring essential equipment, investing in pig stock, and meeting operational expenses.

Furthermore, respondents have significant challenges with environmental concerns, as the majority of them have constructed their pig pens in their backyards. These encompass problems such as the absence of a waste management system and the lack of equipment for controlling odors. The challenges they face are further complicated by water pollution and soil deterioration resulting from the incorrect disposal of pig manure. According to Aneja's (2003) research, substances from the waste of animals may pollute the environment by multiple pathways. These include contamination from poorly designed manure lagoons, spills of lagoons and drainage from recent waste applications during heavy rainfall, and deposition from the atmosphere followed by either dry or wet fallout. Lastly, according to the respondents, economic challenges, also contribute to sustainability problems faced by them. High cost of production and market demand volatility can strain profitability and hinder long-term viability. Based on the study conducted by Anderson (2023) The cost of production has increased for swine farmers, causing issues due to rising feed prices. Inflationary pressures, supply chain disruptions, and volatile global grain markets have all contributed to these rising costs. Hog raisers are consistently confronted with the global problem of high production costs. According to IFIP Institut Du Porc (2021), in 2021, pig producers' economic performance was hindered due to higher production costs (+14.9% on average) while prices received fell throughout Europe, except in Italy. Results were negative in 12 of the countries compared to only 5 of them in 2020. Regarding fluctuations in market demand, the respondents disclosed that the demand for pigs is seasonal and strongly impacted by the farmers' agricultural output, given that San Jose is an agricultural town. It dictates the consumers' capacity to buy different products, including pork. In addition, inflation greatly affects market demand for pork products. The average price increase of a specific group of goods and services over a specified period can be used to calculate the rate of purchasing power drop. Inflation, typically measured as a percentage, results in a decrease in purchasing power of a currency over time. Inflation can be juxtaposed with deflation, a phenomenon characterized by a decrease in prices and a rise in purchasing power (Hayes et al., 2023).

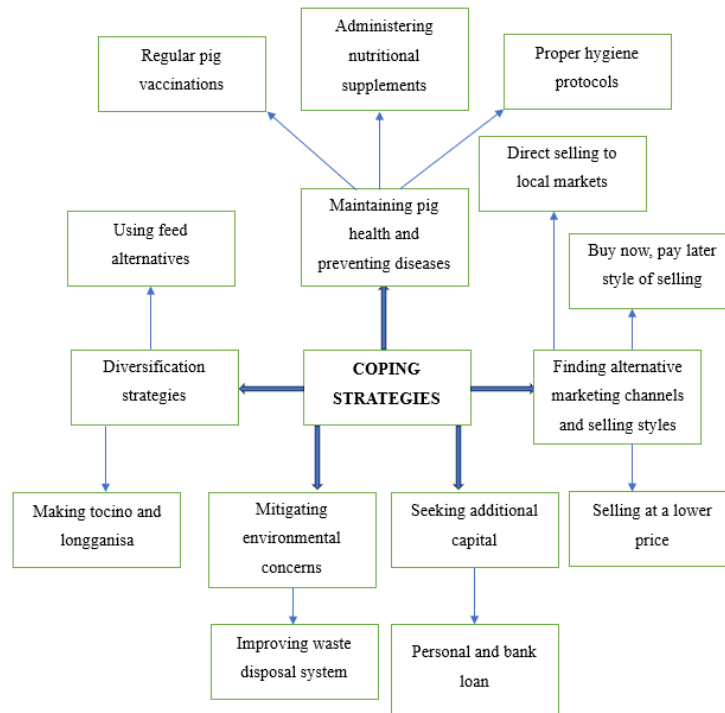


Figure 2. Thematic diagram illustrating coping strategies employed by hog raisers in San Jose, Occidental Mindoro

Coping strategies are essential for hog raisers to overcome the challenges they face in the industry. During the interview, the respondents revealed the following coping strategies: (1) Maintaining pig health and preventing diseases. To ensure the well-being of pigs and prevent diseases, the respondents took proactive steps such as engaging the services of a veterinarian for regular vaccinations, personally providing essential nutritional supplements, and establishing appropriate cleanliness procedures. (2) Finding alternative marketing channels, to address the problem of a poor marketing system, the respondents explored other avenues for marketing and different approaches to selling. These strategies encompass selling directly to the local market, offering products at a reduced price, and implementing a buy now, pay later approach to sales. (3) Seeking additional capital, to address the issue of limited capital, the respondents considered the possibility of obtaining either a personal loan or a bank loan. (4) Mitigating environmental concerns, to address the challenges associated with environmental concerns, the respondents examined different approaches to enhancing the waste disposal system. (4) Diversification strategies, to deal with the economic difficulties, the respondents employed various diversification strategies, such as utilizing alternate feeds, particularly the madre de agua plant, to reduce production costs; and producing tocino and longganisa to differentiate their product offerings.

The findings of this study are similar by Delsart et al. (2020), alternative farming systems are difficult to characterize because they are so diverse, ranging from straw farming to silvopastoral farming, organic farming, or free-range farming, but they all differ from conventional, slatted, confined farming and have a very good societal image. These farms have actual strengths, but they also have limitations, which pose significant hurdles to overcome. Controlling biosecurity is without a doubt the most essential and challenging challenge, but it is required to prevent contamination of livestock farms, which has an influence not only on animal health but also on the safety of the meat produced there. In addition, according to Sunnexdesk (2014), the Bureau of Animal Industry (BAI) conducted an experiment involving the madre de agua plant. In 1997, when BAI introduced the planting material to the country, they conducted experiments by feeding it to hogs, which yielded excellent results. According to the report, the leaves have a protein content ranging from 18 to 22 percent. The farmer has the option to replace 20 to 30 percent of his hogs' commercial growing-finishing diet with madre de agua. The

foliage can be consumed either in its fresh state or transformed into a leaf meal. This is particularly advantageous for commercial farmers, particularly since global prices for corn, wheat, soybeans, and other commodities continue to rise periodically.

4. Conclusions and Recommendations

The research conducted on hog raisers of San Jose; Occidental Mindoro has shed light on five significant challenges faced by this industry. The aforesaid encompasses pig health and diseases, poor marketing system, lack of capital, environmental concerns, and economic challenges. To overcome these problems, the hog raisers typically devise various coping strategies such as maintaining pig health and preventing diseases, finding alternative marketing channels, seeking additional capital, mitigating environmental concerns, and diversification strategies. In addition, by addressing these five challenges identified through research findings, stakeholders within the hog-raising industry can work towards developing strategies that enhance marketing systems, promote sustainable practices, improve economic viability, and prioritize pig health management.

Based on the findings, the following are hereby recommended: (1) Implementing effective disease prevention measures, veterinary support systems, and proper biosecurity protocols to ensure the overall well-being of pigs and mitigate potential outbreaks; (2) Developing efficient marketing strategies, such as establishing partnership with local eateries and carinderias, can enhance the ability to manage poor marketing system; (3) Collaborating with financial institutions or exploring government assistance programs designed for agricultural businesses; and forming cooperative or joining farmer associations can provide access to shared resources and financial support; (4) Promoting eco-friendly practices, and adhering to relevant regulations can contribute to minimizing the environmental impact of hog raising; and (5) Engaging in market research and optimizing production processes for cost-efficiency can help mitigate economic challenges.

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