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BACKYARD TILAPIA HATCHERY & GROW-OUT FARM BUSINESS: A CASE OF A FARMER-ENTREPRENEUR

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Abstract

This research focuses on the marketing practices of Manuel hatchery farm in Science City of Munoz, Nueva Ecija, Philippines, which produces tilapia fingerlings. The qualitative research method was used to analyze and contemplate the findings and achieve the study's objectives. The findings are divided into four categories. The first section summarizes how marketing practices occurred at Manuel Hatchery farm in terms of production, development, and promotion. The second section identifies marketing conditions of tilapia farming in the discourse of Demand and Supply. The third section identifies challenges that are faced in the selling of fingerlings at Manuel Hatchery farm in terms of indirect selling and direct selling. The last section describes Manuel Hatchery Farm's SWOT Analysis. As a result, primary data from an informal interview with the owner of the listed hatchery farm and observational research methods are used in this analysis. Based on the findings of an interview with the owner of Manuel Hatchery Farm, the study team came to a variety of conclusions about the state of operation for handling tilapia fingerling farms. Manuel's farm should advertise, educate, and positively initiate the entire market and even the entire citizen about the importance of fishery and how it will help each individual's livelihood, according to researchers.

Keywords:

Tilapia, Hatchery Farm, Nueva Ecija, Practices, Marketing.

1. INTRODUCTION

Introduction to Related Literature and a Review of Related Literature

Manuel Hatchery Farm, located in Kapalangan, Gapan City, Nueva Ecija, Philippines, is a tilapia hatchery farm. It started out as a small-scale operation with only a few acres of land. Through his hard work, diligence, and perseverance, Mr. Adrian Manuel, the owner, was able to up-scale his business and become a certified registered farm. Manuel hatchery farm is larger than the average hatchery farm, with a total area of 14 hectares, making it one of the largest distributors of tilapia fingerlings to provinces such as Ilocos Sur/Norte, Pangasinan, Isabela, Nueva Vizcaya, Tarlac, La Union, Bulacan, Nueva Ecija, Pampanga, and others.

Marketing Techniques

Manuel Hatchery Farm's marketing strategies were instrumental in the company's success in the tilapia hatchery industry.

Increasing consumer awareness of tilapia, as well as giving seminars and educating aspiring and co-hatchery farm owners about the benefits they will receive, has opened the door to a larger market.

Production

Every product's manufacturing process has an impact on the final result. Similarly, the quality of tilapia is affected by the production process, and the quality influences how it is marketed. Breeder conditioning is the first step in the production of tilapia fingerlings. "Healthy parents produce healthy children" (Zafra,2017). The company places a premium on product quality. High-quality products ensure a high level of demand and patronage from end-users, whereas low-quality products undermine the consumer's trust, reputation, and sales. The emphasis is on product quality in the pre-, during, and post-production stages. (2017, Belyh)

Development

The growth of tilapia as well as fish farming is being closely monitored. Given their

isolation from major markets and the general situation of overfishing in coastal areas and reefs, it is expected that the development of rural fish farming will play a more important role for inland communities. Rural fish farming has the potential to improve the diet and nutrition of people living in remote areas, as well as land-use practices in general.

Promotion

In terms of promotion, efforts to promote tilapia hatcheries can be seen in other organizations, as the Asian Development Bank has identified it as one of those that will support the country's efforts to combat poverty and promote rural economic development. Farmers are becoming more interested in Nile tilapia as a result of various organizations' promotional efforts. Since the 1990s, it has surpassed catfish as the most widely cultured fish in Thailand and neighboring countries. Bhujel (2008; Bhujel (2008; Bhujel (2008; Bhujel)

The state of tilapia farming in terms of marketing.

The demand for tilapia has been steadily rising as consumers became more aware of its health benefits and began to include it in their diets as a means of boosting immunity. Increased consumer awareness, improved quality, a wider variety of product forms, better marketing, and overall increased demand for fish products have all contributed to increased tilapia consumption. (2016, Fitzsimons). The Department of Agriculture (DA) assured consumers that fish supply and prices have stabilized, particularly in the National Capital Region (NCR) and adjoining provinces of Bulacan, Rizal, Cavite, and Laguna, collectively known as "NCR Plus," due to increased demand for tilapia.

The difficulties of selling tilapia.

Tilapia hatchery farm owners face difficulties in both direct and indirect selling of fingerlings. There are obstacles to delivering the fingerlings in the best possible condition, such as long lines at checkpoints that delay transportation and sudden temperature changes that cause the fingerlings to collapse and die.

The advantages, disadvantages, opportunities, and threats

Knowing that every business will face a variety of problems and challenges, conducting a swot analysis is critical because it identifies the challenges that the company will face as well as what its competitive advantage is and how to fully utilize it. A hatchery farm's strengths include a large amount of land for pond construction, capital, and knowledge of tilapia farming. Access to land and water, as well as tenure rights, are critical for tilapia farming. The majority of hatchery owners do not own the land they use, and they are concerned that the owner will turn it into a housing subdivision and resort complex. Others want to expand as well, but don't have the funds to do so. (EB. Torres, I.R. Smith)

Not having enough capital to start or even expand a tilapia hatchery farm is one of the weaknesses that can be considered. One of the main issues in tilapia cage culture was a lack of capital and credit assistance. Due to a lack of capital, many small producers only had one or two cages. (EB. Torres, I.R. Smith)

2. METHODOLOGY

Research Instrument

The instrument we used for this study was a set of answerable questionnaires that the researchers used to collect data. It takes the form of open-ended questions with four sections:

Part 1: Tilapia Hatchery Farm Marketing Practices: A Case Study of Manuel Hatchery in Production, Development, and Promotion.

Part 2: Tilapia farming marketing conditions in a Demand and Supply discourse

Part 3: The challenges they face in selling fingerlings, both indirectly and directly.

Part 4: Manuel Hatchery Farm in Gapan, Nueva Ecija's strengths, weaknesses, opportunities, and threats, or SWOT Analysis.

Development and Administration of the Instrument

The development and administration of the instrument of this study might be the set of these process: the develop research questions, the gathering of information, data processing and the data analysis and interpretation.

Reliability and Validity

For this study, we use content validity, one of the types of validity.Content validity assesses whether a test is representative of all aspects of

the construct. To produce valid results, the content of a test, survey or measurement method must cover all relevant parts of the subject it aims to measure.

3. RESULTS AND DISCUSSION

The Marketing Practices of Manuel Hatchery Farm in terms of their Production, Development, and Promotion.

The main goal of this research was to find out about Tilapia Hatchery Farm Marketing Practices: A Case Study of Manuel Hatchery Farm in Gapan, Nueva Ecija. The farm's tilapia production, development, and promotion are all based on tried and true methods. The habitats used for tilapia production, according to Mr. Adrian Manuel, the hatchery farm's owner, are open ponds and hapa or net enclosure ponds. The conditioning of breeders is followed by the preparation of breeding ponds for stocking brood fish in the production of tilapia fingerlings. Manuel's farm, on the other hand, believes that having a large breeder is unnecessary, and that having a small or medium-sized brood fish or breeder is not a problem as long as it produces more fingerlings than large breeders. For good fertilization, they normalized pond conditions and placed breeders in an open pond with a ratio of 2 males to 5 females. Manuel hatchery farm produces Nile tilapia fingerlings, which are very popular in the market and are also a common breed produced by most fisheries in the Philippines. Manuel's farm also produces Red tilapia fingerlings; the methods for producing hybrid tilapia, such as Red tilapia, are the same as for producing common tilapia fingerlings.

Manuel's farm feeds their fingerling tilapias according to the fish's recommended feeding rates and growth stages. They do, however, feed the tilapia fingerlings twice a day, between 8 a.m. and 9 a.m. and 3 p.m. and 4 p.m. The broadcast feeding method, which involves spreading feed by hand, is used in the morning and/or afternoon, with feeding times ranging from 30 minutes to an hour. According to Sir Adrian Manuel, fish monitoring is extremely valuable due to the fish's health standard, which can be defined by its development. They need to keep an eye on the water to protect the tilapia fingerlings from harmful microorganisms, so they can monitor them. In hatchery production, however, the mature female and male are separated to avoid unintended fertilization. They must prefer to mix the 5 females and 2 males in the pond's base so that the tilapia can easily fertilize and produce fingerlings.

After a month in the pond, Manuel's tilapia fingerlings can be harvested and distributed. Fully grown tilapias weighing 60-100 grams and measuring 14-17 cm in length are ready for distribution. Manuel hatchery farm also distributes fingerlings to various locations, including Ilocos Sur/Norte, Pangasinan, Isabela Nueva Vizcaya, Tarlac, La Union, Bulacan, Nueva Ecija, Pampanga, and others.

Manuel's farm used social media marketing to spread the word about their tilapia farm, such as posting proofs and updates on Facebook. Consumers were also made aware of his farm through word-of-mouth marketing (WOM marketing).

4.2 The marketing conditions of tilapia farming in a discourse of Demand and Supply.

Based on findings, Manuel Hatchery Farm's average range per month is 300,000 - 500,000 fingerlings which correspond to good performance. While their minimum price of fingerlings depends on their size. The size 17 fingerling cost is 0.80 cents while size 14 is 1 peso. In Section 1 of Fisheries Administrative, order no. 205, s.2000, stated that size 17 cost is 0.30 cents while size 14 is 0.50 cents. However, in the case of the Philippines, the concept of fry shortage does not conform to the described situation. In this sense, price freely moves to market equilibrium that's why Manuel Hatchery Farm has a reasonable, just, and acceptable pricing for tilapia fingerlings.

4.3The challenges that they are facing in the selling of fingerlings in terms of indirect selling and direct selling.

Manuel's hatchery farm uses both direct and indirect selling of tilapia fingerlings. Manuel's marketing of tilapia in some places is relatively simple, they normally pick up the harvested tilapia at the farms and they delivered the fingerlings when they reach the maximum orders. They also sell their produce to wholesalers, retailers, and consumers.

Sometimes distributors and retailers procure tilapia in pakyaw or bulk on an unsorted basis. Moreover, Manuel's farm is a very generous type of business when his customers are at the stake of risks, he takes charge in growing and harvesting the produce and pays all the expenses during the activity but when it succeeds the customers should pay him.

The factors that affect Manuel's Farm on selling tilapia fingerlings to different places are; time factors and sudden fluctuations in temperature. Due to pandemic distributing or selling tilapia fingerlings on time to customers is hard to attain, there are causes like needed to have a medical certificate (swab test, antigen test) and traffic that you can't avoid when transporting. Another factor is sudden fluctuations in temperature that can lead to the collapse and death of the fish.

Manuel Hatchery Farm sells tilapia fingerlings directly to consumers and at the same time, they are using intermediary channels such as wholesalers and retailers that moderate supply and demand fluctuations and cope with larger transactions with less emphasis on selling techniques and services and product promotion.

4.4The strength, weaknesses, opportunities, and threats or also known as SWOT Analysis of Manuel Hatchery Farm in Gapan, Nueva Ecija.

Manuel Hatchery farm's strength is having a hatchery farm that has 14 hectares of land which is bigger than any other farm. Another advantage is that even if orders are canceled, they won't be at a disadvantage because they have a grow-out pond for tilapia. Mr. Manuel, the owner is also a graduate of BS in Fisheries giving him more knowledge on handling fish.

The farm’s weakness is the bigger their farm is, the bigger capital needed and the bigger the farm needed to be managed. Expansions also cost expensive construction and operation cost.

Covid 19 pandemic has become one of the opportunities for Manuel Hatchery Farm. Though it cost most businesses to force close, Manuel hatchery farm is continuously striving as fish is an essential food and people started to eat fish more because of its healthy benefits. Another opportunity is for a business corporation to tie up with them because of the wide land they own, they can provide big companies the number of fingerlings they needed.

The threats to Manuel Hatchery Farm that Mr. Manuel considered are typhoons, la niña, or draught which causes the pond water to decrease and little amount of supply from irrigations. Pouching poor roads, checkpoints that cause a delay in delivery are also added as threats.

Conclusion

The research team came to several conclusions about the state of practice for managing tilapia fingerling farms after interviewing Mr. Adrian Manuel, owner of Manuel Hatchery Farm. The main findings of the research team are discussed below.

Manuel's Hatchery Farm was the subject of this investigation. Open ponds and hapa or net enclosure ponds are used to produce fingerlings. They prepared breeding ponds for stocking brood fish by conditioning and preparing them. Manuel's farm prefers breeders who can produce a large number of fingerlings, even if the brood fish are small or medium in size. For good fertilization, they normalized pond conditions and placed breeders in an open pond with a ratio of 2 males to 5 females.

They commonly produce Nile tilapia fingerlings as well as Red tilapia fingerlings. Feeding is done in the morning and/or afternoon, with feeding durations ranging from 30 minutes to an hour, using the broadcast feeding method, in which feed is spread by hand. They need to keep an eye on the water to protect the tilapia fingerlings from harmful microorganisms, so they can monitor them. After a month in the pond, Manuels' tilapia fingerlings can be harvested and distributed. Fully grown tilapias weighing 60-100 grams and measuring 14-17 cm in length are ready for distribution.

For Manuel's Hatchery Farm's promotional system, According to Mr. Adrian Manuel, his farm only uses Facebook to post proofs and updates about their operations. As

researchers, we noticed that Manuel's Hatchery Farm's promotion strategy is something that they need to improve. Agri fishery farmers in Novo Ecija do not know where their hatchery is located, so they travel outside of Nueva Ecija to import tilapia fingerlings.

The minimum price for fingerlings at Manuel is determined by their size. The cost of a size 17 fingerling is 0.80 cents, while a size 14 fingerling costs 1 peso, which is not the same price under Section 1 of Fisheries Administrative Order No. 205, s.2000. In the Philippines, the concept of a fry shortage does not apply to the situation described. In this sense, price moves freely to market equilibrium, which is why Manuel Hatchery Farm's tilapia fingerling pricing is reasonable, just, and acceptable.

Time and temperature fluctuations are two factors that affect Manuel's Farm's ability to sell tilapia fingerlings to different locations. The strength of Manuel Hatchery Farm is that it has a hatchery farm with 14 hectares of land, which is larger than any other farm. Another benefit is that they will not be disadvantaged if orders are canceled because they have a tilapia grow-out pond. While the farm's weakness is that the larger the farm is, the more capital is required and the more management is required. Expansions are also costly in terms of construction and operation. Because Tilapia is one of the essential foods, businesses do not need to stop because of Covid 19, which is why Manuel's farm continues to thrive. Mr. Manuel considered typhoons, La Nia, and draught as threats to Manuel Hatchery Farm.

Recommendation

Manuel's farm should advertise, educate, and positively initiate the entire market and even the entire citizen about the importance of fishery and how it will help each individual's livelihood, according to the researchers.

Manuel Hatchery Farm should also expand its Digital Marketing platforms in order to be fully recognized in the market, particularly now that the internet has revolutionized the advertising industry. As a result, Manuel's farm is up against stiff competition in terms of increasing the impact of their advertising in order to raise awareness, drive sales, and maintain market share. Manuel's farm should expand its promotion to many digital marketing platforms such as Twitter, Instagram, and Linked In, as well as YouTube, Spotify, and others, in order to keep up with the rapidly growing competition.

Manuel's farm should transport the fish at night to avoid being caught by traffic and to avoid high temperatures, or if it is during the day, the bags should be placed in cardboard, wooden boxes, or canvas bags to keep the bags cool and reduce fish activity due to darkness, thus reducing Oxygen depletion. To reduce the risk of leaks, the plastic bags must be doubled.

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