

# Promoting Farming Skills through Digital Space: A Study on the Use of Social Networking Sites among Fish Farmers of Kolasib District, Mizoram

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## INTRODUCTION

Social networking sites are online spaces where users can build and share personal profiles, connect with other users, and participate in a range of social activities. The way individuals connect, communicate, and share information online has changed dramatically as a result of the extreme popularity of these websites in recent years. Some of the most well-known social networking sites include, Facebook, Twitter, Instagram, LinkedIn, Snapchat, YouTube, Pinterest, TikTok, Reddit, etc. These platforms serve various purposes, from personal social connections to professional networking, content sharing, and entertainment

In the northeastern Indian state of Mizoram, fish farming, commonly referred to as pisciculture or aquaculture, is a significant agricultural endeavor. The landscape of Mizoram, which is characterized by steep terrain and a large number of rivers and streams, is ideal for fish farming. Pond-based aquaculture is the most common method of fish farming in Mizoram. Farmers create and maintain fish ponds, where they stock fingerlings and feed them until they reach market size. These ponds are typically constructed in low-lying areas or terraced hillsides. Fish farming in Mizoram is highly concentrated within Kolasib District. According to statistic by Department of Fisheries, Govt. of Mizoram, Kolasib District has the highest number of fish farms as well as largest number of fish farming area by hectare.

**Table 1: Statistic of Fish farming in Mizoram**

| Sl. No | Name of District | Number of Fish Pond | Total Area of Fisheries | Production in Metric ton |
|--------|------------------|---------------------|-------------------------|--------------------------|
| 1      | Aizawl           | 1482                | 450.71                  | 270.43                   |
| 2      | Lunglei          | 1831                | 615.61                  | 369.37                   |
| 3      | Saiha            | 1346                | 460.21                  | 368.17                   |
| 4      | Kolasib          | 3338                | 1181.21                 | 1299.33                  |
| 5      | Mamit            | 3065                | 1162.41                 | 1278.65                  |
| 6      | Lawngtlai        | 2356                | 803.89                  | 562.72                   |
| 7      | Serchhip         | 1575                | 432.69                  | 346.15                   |
| 8      | Champhai         | 1573                | 478.75                  | 430.88                   |
| 9      | Saitual          | 717                 | 65.20                   | 39.12                    |
| 10     | Khawzawl         | 770                 | 64.20                   | 38.52                    |
| 11     | Hnahtial         | 466                 | 44.20                   | 26.52                    |
|        | <b>Total</b>     | <b>18519</b>        | <b>5759.08</b>          | <b>5029.85</b>           |

Source: <https://fisheries.mizoram.gov.in/page/no-of-farmers-area-and-production>

### Statement of the Problem:

The Northeast Indian state of Mizoram is home to an expanding number of fish farmers who are essential to the aquaculture sector there. Social networking site (SNS) use has exploded in recent years across a variety of industries, including agriculture. Our knowledge of how and to what extent fish farmers in Mizoram are using social networking sites as instruments for information sharing, marketing, and community participation within the aquaculture domain,

however, is significantly incomplete. The present research seeks to throw light on what social networking sites are being used by fish farmers in Kolasib District, Mizoram, and to what extent are they integrated into their daily farming practices.

## **REVIEW OF LITERATURE**

Scholarly kinds of literature relating to the present study are reviewed and arranged chronologically. Balkrishna and Deshmuk (2017) study the role of social media in agricultural marketing and finds that The agricultural sector uses social media to connect with other like-minded agricultural professionals and spread essential information and knowledge within the field. Social media platforms improved and deepened agri-based communities' linkages and assisted rural workers in overcoming the segregation that was brought about by their line of work. It has transcended geographical barriers, bringing together the interests of the rural communities. As of now, there is a significant presence of blogs covering subjects including agriculture, animal husbandry, health, education, and other general interest subjects. Social media sites like Facebook, Twitter, YouTube, and blogs are proving to be effective platforms for information sharing and raising awareness among many stakeholders, which will help to generate and influence the event's content.

Thakur and Chander (2018) survey the use of social media in agricultural extension in India and reveals that the popular social media tools i.e. Facebook, WhatsApp and YouTube are being used for information delivery and sharing across different agriculture subsectors (crops, horticulture, dairy, goat farming) in India. Most of them are through individual efforts. There is definite lack of organized efforts to use social media from public extension system in India. Appreciably, in recent times, the Government of India including Indian Ministry of Agriculture has given importance to Social Media. The Minister of Agriculture in India not only maintains a Facebook account but also recently he answered the queries of the public online using Facebook which is a significant move forward to enhance use of social media.

Mamgain et.al (2020) study the impact of social media in enhancing agriculture extension and conclude that The agricultural sector uses social media to connect with other like-minded agricultural professionals and spread essential information and knowledge within the field. Social media platforms improved and deepened agri-based communities' linkages and assisted rural workers in overcoming the segregation that was brought about by their line of work. It has transcended geographical barriers, bringing together the interests of the rural communities. As of now, there is a significant presence of blogs covering subjects including agriculture, animal husbandry, health, education, and other general interest subjects. Social media sites like Facebook, Twitter, YouTube, and blogs are proving to be effective platforms for information sharing and raising awareness among many stakeholders, which will help to generate and influence the event's content.

### **Objectives of the Study**

The present study considers the following objectives:

- To explore the regularity of accessing social networking sites by farmers.
- To identify the most commonly used social networking applications among farmers.
- To measure the acceptance of social networking sites as a tool for skill development by fish farmers.

## **METHODOLOGY**

The current study is founded on a survey approach conducted among fish farmers of Kolasib District, Mizoram. The survey was conducted among registered fish farmers within Kolasib District. At present there are 3338 active fish farms in Kolasib District. To gather sufficient data for the study, a structured questionnaire was created with the study's goal in mind and disseminated to the target populations. A total of 500 questionnaire was distributed where 325 respondents reacted to the best of their knowledge. The questionnaire included self-assessment questions using a five-point Likert scale and optional type questions. MS Excel was used to tabulate and analyse data so that references could be made.

## **DATA ANALYSIS**

Data acquired through a designed questionnaire has been analyzed using several statistical tools so as to throw light on the given objective of the present study.

### **Respondents Profile**

The present study was conducted among fish farmers of Kolasib District, Mizoram. The samples were distinguished based on age group

**Table 1: Age Group of the respondents**

| Age Group of the respondents |            |
|------------------------------|------------|
| 20-25                        | 50(15%)    |
| 26-30                        | 65 (20%)   |
| 31-40                        | 68 (21%)   |
| 41-50                        | 68 (21%)   |
| 51-60                        | 74 (23%)   |
| <b>Total</b>                 | <b>325</b> |

Source: Primary Data

The respondents are categorized into 5 age groups. The age group from 51-60 constitutes 23% of the total respondents, which is the highest number of respondents. The age group from 20-25 has the lowest quantity of respondents which amounts to only 15% of the total sample size. Age groups from 26-30 contribute 20% of the total sample size. Both age groups from 31-40 and 41-50 contribute to 21% of the total respondents each.

#### ***Experience in fish farming***

The present study takes into account the experience in fish farming of the samples for a better understanding of the profile of the respondents. Their experience level is categorized into 5 groups where 'Below 2 years' is the minimum and 'Above 15 years' is the maximum.

**Table 2: Experience level of fish farmers**

| Experience in fish farming | No. of Respondents |
|----------------------------|--------------------|
| Less than 2 years          | 60 (18%)           |
| 2 – 5 years                | 69 (21%)           |
| 5 – 10 years               | 53 (15%)           |
| 10 – 15 years              | 82 (25%)           |
| Above 15 years             | 61 (19%)           |
| <b>Total</b>               | <b>325</b>         |

Source: Primary Data

Table 2 shows the experience level of the respondents in terms of the expanse of years and how much they have been involved in fish farming. The majority of the respondents' i.e. 25% have 10-15 years of experience in fish farming which is followed by the category of 2-5 years by 21%, above 15 years by 19%, less than 2 years by 18%, and 5-10 years with 15% which draws the least number of respondents.

#### ***Quantity of production in quintal***

In order to have a deeper insight into the profile of the respondents this study highlights the quantity of fish production in quintals.

**Table 3: Total fish production (in quintals) from 2011-2021**

| Production in quintals | No. of respondents |
|------------------------|--------------------|
| Less than 10 quintals  | 76 (23.38%)        |
| 10-20 quintals         | 63 (19.39%)        |
| 20-30 quintals         | 62 (19.07%)        |
| 30-40 quintals         | 63 (19.39%)        |
| Above 40 quintals      | 61 (18.77%)        |
| <b>Total</b>           | <b>325</b>         |

Source: *Primary Data*

The present study measures the productivity levels of the fish farmers in quintals for the given 10 years (2011-2021). The minimum production rate regarded in this study is ‘Less than 10 quintals’ and the maximum production is ‘Above 40 quintals’. Analysis of the acquired data shows that the majority of the respondents (23.38%) fall under the minimum productivity rate regarded for the study i.e. ‘Less than 10 quintals’ within 10 years and the least number of respondents comes under the range of highest productivity rate i.e. ‘Above 40 quintals’.

**Duration of accessing the Internet by fish farmers**

In order to identify their frequency of accessing the internet, each respondent is examined on the basis of hours spent daily browsing through the internet. So, to understand the duration of time spent on the internet by fish farmers, the present study formulated a category of 5 time frames arranged in ascending order.

**Table 4: Duration of accessing the internet by fish farmers**

| <b>Time spent on the internet</b> | <b>No. of respondents</b> |
|-----------------------------------|---------------------------|
| Less than 2 hours                 | 68 (21%)                  |
| 2-4 hours                         | 71 (22%)                  |
| 4-5 hours                         | 112 (34%)                 |
| 5-7 hours                         | 58 (18%)                  |
| More than 5 hours                 | 16 (5%)                   |
| <b>Total</b>                      | <b>325</b>                |

Source: *Primary data*

Table 4 depicts that the majority of the respondents i.e. 34% accessed the internet for 4-5 hours daily, which is in the exact middle range of the duration time frame given in the study. Followed by 22% of the respondents who accessed the internet for 2-4 hours daily, 21% of the respondents who accessed the internet for less than 2 hours per day, 18% of the respondents who accessed for 6-7 hours daily, and only 5% of the respondents accessed for more than 5 hours a day.

**Most Commonly Used Social Networking Sites**

There are several social networking sites in the web platform, the present study is confined to the most widely used social networking sites in Mizoram which are WhatsApp, Facebook, YouTube and Instagram.

**Table 5: Use of various Social Networking Sites**

| <b>Sl. No.</b> | <b>Name of Networking Sites</b> | <b>No. of users</b> |
|----------------|---------------------------------|---------------------|
| 1              | WhatsApp                        | 119 (37%)           |
| 2              | Facebook                        | 65 (20%)            |
| 3              | YouTube                         | 81 (25%)            |
| 4              | Instagram                       | 60 (18%)            |
|                | <b>Total</b>                    | <b>325</b>          |

Source: *Primary Data*

Table 4 shows that 37% of the respondents claim that they mostly use WhatsApp, 25% of the respondents mostly use Facebook, 20% of them mostly use YouTube, and 18% of the respondents mostly use Instagram.

**Perception of the use of social networking sites as a tool for skill development**

This study intends to throw light on the perception of fish farmers in using social media tools as a platform for skill development. In order to meet this objective the measures the opinion of fish farmers using Likert Scale and Table 6 shows the data so acquired.

**Table 6: Level of agreement on the use of social networking sites as skill development tools**

| Sl. No | Level of Agreement | No. of response |
|--------|--------------------|-----------------|
| 1      | Strongly disagree  | 30 (9%)         |
| 2      | Disagree           | 41 (13%)        |
| 3      | Neutral            | 96 (30%)        |
| 4      | Agree              | 105 (32%)       |
| 5      | Strongly agree     | 53 (16%)        |
|        | <b>Total</b>       | <b>325</b>      |

Source: Primary Data

Table 4 shows that majority of the respondents i.e. 32% agree that social media tools can be used as a platform for skill development while 30% of them remain neutral on this concept and 16% strongly agree that social media tools can be used as a platform for skill development whereas 13% of them disagree and only 9% of the respondents strongly disagree the concept.

#### Types of information sought on social media

There are several information needed by fish farmers in order to prosper in their farming. Fish farming include several activities such as maintaining healthy fish pond, feeding healthy feeds to the fish, the right skills for harvesting and information about various species of fish, the present study intend to find the extent of implying social media tool in gathering these vital information.

**Table 7: Information sought on social media in fish farming**

| Farming Activities                                | Never    | Rarely   | Sometimes | Often    | Always    | Total |
|---|----------|----------|-----------|----------|-----------|-------|
| Fish pond management                              | 15(5%)   | 65 (20%) | 123 (38%) | 91 (28)  | 31 (9%)   | 325   |
| Maintain the health of fishes                     | 75 (23%) | 80 (25%) | 101 (31%) | 43 (13%) | 26 (8%)   | 325   |
| To learn harvesting techniques                    | 37 (11%) | 99 (30%) | 68 (21%)  | 77 (24%) | 44 (14%)  | 325   |
| To understand the nutrition requirement of fishes | 27 (8%)  | 58 (18%) | 79 (24%)  | 46 (14%) | 115 (36%) | 325   |

Source: Primary Data

Table 7 shows the regularity of using social media for various fish farming activities. As far as seeking information relating to fish pond management is concerned majority of the respondents i.e. 38% sometimes use social media, 28% of them often used it, 20% of the respondents rarely use social media while 9% of them always use it and only 5% of the respondents never use social media for gathering information related to fish pond management.

In the case of information relating to maintenance of fish health 31% of the respondents seek help from social media, 25% of the respondents rarely use it and 23% of them never use social media while 13% of the respondents often use social media and only 8% of the respondents always approach social media platform for gathering information related to maintenance of fish health.

In the case of learning harvesting techniques majority of the respondents i.e. 30% never use social media tools while 24% of the respondents claims that they often turn to social media for learning harvesting techniques and 21% of the respondents sometimes use social media for such cause while 14% of them claim that they always approach social media and 11% of the respondents claims that they never use social media.

In the case of understanding the nutrition requirement of fish majority of the respondents i.e. 36% claims that they always turn to social media for such cause while 24% of them sometimes use social media and 18% of the respondents claim that they rarely use social media and 14% of the respondents often use social media and only 8% of the respondents never use social media for gathering information related to nutritional needs of fishes.

### **FINDINGS**

- From analysis of data collected it is found that fish farmers of Kolasib District, Mizoram are accessing social media tools profoundly as majority of the respondents access social media for 4-5 hours daily and more than half of the respondents are accessing social media tools for more than 4 hours daily.
- It is found that WhatsApp is the most commonly used social media tools among fish farmer of Kolasib District, Mizoram
- It is found that majority of the respondents agree that social media tools can be used as medium for skill development in fish farming.

### **CONCLUSION**

The present study reveals that social media tools can be applied for skill development in fish farming. There are several activities included in the process of fish farming and knowledge sharing among fish farmers through various services offered by social media tools such as, chat, multimedia sharing, etc. can directly result in prosperous fish farming. It is important for these farmers to have proper training on the use of social media tool in order to further enhance their farming skills.

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