

# TECHNOLOGY CONSULTING

IN THE GLOBAL COMMUNITY

Final Consulting Report  
Ammachi's Organic Farms  
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**Carnegie Mellon University**





# **Ammachi's Organic Farms**

## **Executive Summary**

Student Consultants: Danagul Azimzhanova, Ilona Altman  
Community Partner: Sajith Venkit

### **I. About the Organization**

Ammachi's Organic Farms is a family-owned and operated business located right outside of Palakkad, in the heart of Kerala, India. The farm began 26 years ago when the founder, P Bhuvaneswari, began transforming a once barren land into a fertile one to feed her community non-toxic food.

The name of the farm comes from the word "Ammachi", which means "mother" in Malayalam. The farm is named after the founder, P Bhuvaneswari, as she is a mother to everyone - plants, animals, and people alike.

The mission of the farm is:

*to build a healthy community by providing affordable organic produce while preserving mother nature at its best through sustainable farming.*

### **II. Revamping the Website**

The client initially faced low website traffic due to inadequate design and functionality. The website lacked appeal to the target audience, impacting product sales and Airbnb bookings. Enhancing the website will increase the number of sales and bookings by offering engaging content, including farm information and services like tours and organic farming lessons on YouTube (see section IV).

- **Outputs:** Revamped Website
- **Outcomes:** Increased traffic to Ammachi's Organic Farms website, higher number of produce sales, Airbnb stay and tour bookings, as well as Youtube channel views.
- **Project Sustainability Risks:** Payment system issues that occurred externally, website contact forms, orders and products in stock should always be monitored by Sajith, Ammachi's son and IT manager of the farm.
- **Risk Mitigation Steps:** Sajith can resolve the issue with the external payment system, download the Wix app and turn on the notifications. To further reduce the risk, Ani or Sabitha can also keep track of orders and contact forms on the website.

### **III. Social Media Marketing**

Our client recognized the need for an improved social media presence. The challenge was that the farm lacked visibility on key platforms. Hence, we have identified an opportunity of creating accounts on social media platforms and promoting the farm's services there. We concentrated on establishing Facebook and Instagram accounts, essential for organic farms, and crafting a marketing plan.

- **Outputs:** Accounts on Instagram, Facebook, and Meta Business Suite, 14 posts, and 27 stories for highlights (published and scheduled)
- **Outcomes:** Increased awareness of Ammachi's Organic Farms.
- **Project Sustainability Risks:** Maintenance challenge, since both accounts require time and effort investment from Sabitha, the social media manager.
- **Risk Mitigation Steps:** Training sessions with Sabitha, introducing Meta Business Suite, a tool that can help Sabitha to plan and schedule posts and stories in advance.

#### **IV. Establishing a Learning Platform on Youtube**

The client confronted both a challenge and an opportunity. The challenge was that the vital agricultural knowledge that sustains the farm was never documented, jeopardizing its future once Ani and Ammachi are no longer around. The opportunity was that, within India, there exists a need for knowledge exchange and community engagement in the field of organic farming, because organic farmers face insufficient support from the government.

To address this, we established an educational YouTube platform with English subtitles. This enables Ammachi to share her agricultural wisdom widely, preserving the farm's legacy and amplifying its impact.

- **Outputs:** "Ammachi's Organic Farms" Youtube Channel & 3 posted Youtube videos
- **Outcomes:** Increased awareness of Ammachi's Organic Farms, and traditional organic farming techniques.
- **Project Sustainability Risks:** Maintenance challenge due to time constraints on Sabitha, Ammachi's daughter and social media manager.
- **Risk Mitigation Steps:** Sajith provided Ammachi with a new phone for filming, managed by Ani. Additionally, Sabitha made plans to record video content during each of her visits to her mother.

**Consulting Partner**

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Amma chi' Organic Farms

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**About the Consultants**

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Ilona is a recent graduate of Art and Decision Science major. Next year, she is planning to join a consulting firm to work on sustainability projects.

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Danagul is a senior in Information Systems. She is doing a concentration in Data Science. Next year, she is planning to complete her final year in university, as well as work on her senior thesis.

# **Ammachi's Organic Farms**

## **Final Consulting Report**

Student Consultant: Danagul Azimzhanova, Ilona Altman  
Community Partner: Sajith Venkit

### **I. About the Organization**

#### **Organization**

Ammachi's Organic Farm is a family business that lies right outside of the city of Palakkad, in the heart of Kerala, a region in southern India. Despite rocky soil and little water, P Bhuvaneshwari has created a place filled with lush plants and incredible biodiversity. She started the farm 26 years ago on a barren field of around 25 acres.

The moment you walk into the farm, it is clear how fitting the name is - "Ammachi " means mother in Malayalam, and Bhuvaneshwari, acts as a mother to every plant, animal, and person she interacts with by exuding love. She understands her work as providing healthy food for her community, supporting the life of all the plants and animals on her farm, and maintaining the health of the land for future generations. She achieves this by using organic farming techniques that maintain the health of the ecosystem and keep it free from pesticides and other chemicals.

A great diversity of plants are grown here, from mango to rice to curry leaves, all using a traditional "zero budget" farming technique. Around 10 people tend to the farm at a time, and each of her children helps in their way, through their unique talents as well as any offering some financial support. Every person at Ammachi's Organic Farm contributes to the mission of the organization:

*to build a healthy community by providing affordable organic produce, while preserving mother nature at its best through sustainable farming*

This organization has many strengths, including a close relationship with the surrounding community due to its charitable work, incredible hospitality toward guests, and deep agricultural knowledge of the land. Due to these strengths, as well as many more, Bhuvaneshwari has received countless awards for her work, including the prestigious "Best Farmer in Kerala" award in 2022 ("Karshakasree"). There is limited use of technology outside of messaging applications, the website, and Airbnb. By expanding the use of technology and the management of existing communication using technology, Ammachi's Organic Farm has the potential to further expand its impact.

#### **Facilities**

The main facilities of the organization include the family's living quarters and the farmland. The family's living quarters consist of three buildings - the main family home and two small cottages.

#### **Living Quarters**

The living quarters are used both by the family, their guests, and Airbnb customers. These homes all have access to high-speed internet, electricity, and running water. The wifi is used to support internal and external communication using Whatsapp, Airbnb, and Wix and is accessed through personal mobile phones, and on one family iPad. At times, the power goes out, which occasionally disables communication, though it is rarely for long. There are no computers on the property.

## **Farmland**

The 25 acres of farmland include many parts to sustain the plants, animals, and workers on the farm. This includes two ponds for cultivating fish, two rice fields, a barn for the cows, a small building for workers to eat lunch and rest, and countless sections of fields where various plants are grown. It is used by all the animals, insects, and birds which live on the farm, as well as by all the farm workers including Bhuvanewari, who tend to it. The farmland has running water to irrigate the farm, as well as other farming equipment, described in further detail later. All the farming equipment is operated manually, which is very time-consuming. (Automating some farming activities like irrigation through technology is out of scope for our summer project, but would be helpful for the farm in the future).

## **Programs**

Ammachi's Organic Farm runs three major programs which support its mission.

### **Program I: Organic Farming and Food**

The main labor of the organization goes towards cultivating organic food through careful farming, to cooking organic meals for the family, workers, and guests. This is also the main source of income for the organization. The major activities of the farm include daily upkeep like irrigation and pruning, as well as seasonally specific activities like sowing, tilling, and harvesting the field. The technology that is used on the farm is limited to the machines that assist with the physical production of goods, as well as the use of the Wix Website, by which many of the customers order specific products directly from the farmer. The Wix website is accessed via mobile devices.

The products of the farm vary in each season but include both pre-prepared products (pickled mangos, ginger tamarind pickle, coconut oil, rice flour, etc.) seasonal fruits, vegetables, and grains (mangos, corn, rice, etc.) as well as milk produced on the farm. The farm products are eaten by the animals and wildlife on the farm, as well as by the family and customers. They are sold to customers directly from the organization, which ensures they reach the customer both at the lowest price and without the application of any harmful chemicals, which some sellers apply to increase the shelf-life of the products. Meanwhile, the food is cooked each day in the outdoor kitchen right outside of the main house. The food contains only organic food, most of which is grown on the farm. It is eaten by family, workers, and guests.

The cultivation and preparation of various food products through the organic farming method directly support the mission of the farm to create access to affordable, healthy food for the community and to support the health of the ecosystem of the farm, sustaining it for future generations.<sup>1</sup> Through selling the food directly to the consumer, they ensure that healthy food is priced accessible, and without any harmful chemicals.

By using organic, regenerative farming techniques and agroecological principles, the diversity of non-human life is promoted and protected. This is in stark contrast to industrial agricultural techniques, which promote chemical-intensive monocultures that often harm wildlife by polluting the environment with excess fertilizers and pesticides, as well as harming soil health in the long term. By feeding the community and guests with organic food, they both support the health of people through healthy, chemical-free food and can educate others about the health benefits of

organic food and enable them to see and taste the difference between organic practices with industrial agricultural practices.

### **Program II: Ecotourism through Airbnb**

The other main source of income for the farm is the hosting of both domestic and international guests on Airbnb. These guests are provided with accommodations in one of the three buildings on the farm and are provided with home-cooked, organic meals. The products on Airbnb include several farm stay listings, and also one Airbnb “Experience” of eating organic food and a tour of the farm. The major activities regarding Airbnb include managing communications with the guests who booked the listings, preparing for the guests by cleaning their lodgings, coordinating their transportation to the Airbnb, as well as occasional educational tours around the farm. The technology used to coordinate these activities is either Whatsapp for internal communication between family members or the Airbnb app using a mobile device.

Hosting people on Airbnb supports the mission of the farm to create a healthy community and preserve mother nature. Through their incredible hospitality and by preparing healthy, organic food in a relaxing environment, they support the physical and emotional health of their community of travelers. Through their educational tours of their beautiful, biodiverse farm, and through trying the delicious organic food, their guests are instilled with an appreciation for organic farming and nature. They inspire others to connect to nature and our client is a “Superhost” on Airbnb, with incredible reviews that rave about their hospitality and the natural beauty of the farm. Airbnb allows Ammachi’s Organic Farm to increase its reach, both by introducing tourists to their work, as well as by providing an additional revenue stream that supports the work of the farm to protect mother nature and charitably contribute to the local community.

### **Program III: Caring for the Community**

This program is not officially part of the organization, and does not contribute to its income, but plays an important part in the organization’s proximity to the local community and in the use of resources of the farm. Bhuvanewari and her family contribute lots of time, energy, and money towards charitable activities that largely span the themes of healthcare, education, and access to healthy food.

In terms of activities related to healthcare, Bhuvanewari has a relationship with a doctor that specializes in palliative care. He will often direct his clients to her, and she tries to help in any way that she can, whether that be by providing them with healthy food, a place to relax in her home, or buying them clothing. Related to education, she and her children offer many different scholarships to people who lack resources. Related to access to food, she has a couple of families that she provides daily food to. Additionally, she also donates food to the local hospital, as well as to anyone that she finds that is in need.

### **Program IV: Connecting Organic Farmers**

In the past, there was an effort by Bhuvanewari and her sons to create a website marketplace that would sell organic produce from multiple farms. This website would be a manifestation of relationships with other organic farmers, creating an organic community and shared marketplace where people would be able to buy all the organic foods they needed. In doing so, support the

mission of their organization by expanding their impact, and encourage even greater consumption of organic food in their community.

This program never came to be, as they experienced several challenges related to developing partnerships with other organic farmers. They did not know how to verify other farms as organic, and additionally, did not know of many other organic farmers in their region. Even though this project was not realized, there is still a strong interest by the organization in expanding its impact to support a community of organic farmers and create a greater impact in the agricultural community. There is also a strong interest in using technology to facilitate learning about the organic farming techniques developed by Bhuvaniswari, her son Ani, and the other farm workers over the 25+ years of tending to the farm. Bhuvaniswari already has many relationships with local farmers and organic food stores and communicates with them on a Whatsapp group with around 100-115. She also hosts events with local farmers at her farm, taking place once or twice a month. This work has the opportunity to be expanded going forward.

## **Staff**

The organization is currently staffed by Bhuvanewari (CEO), members of her family, a few permanent workers and friends, and a flux of temporary workers during important activities that require more labor, like harvesting rice. Those that will be most impacted by our work on the farm operations will be Bhuvaniswari and Ani, who work the most directly with technology on the farm.

Below, you will find a review of each permanent worker, their position, responsibilities, and how they use technology.

## **Leadership**

Bhuvanewari, founder and CEO, constitutes the leadership of Ammchi's Organic Farm. Her primary responsibilities include managing the farm and caring for all the Airbnb guests when they arrive at the farm. As well as leading important farm decisions, she also gets involved in most physical activities on the farm. Her many talents include knowledge of farming, organic farming methods, and hospitality. Her use of technology includes the use of the Airbnb app, farming mechanical tools, as well as messaging apps Signal and Whatsapp for internal communication. Her sons, Sajith and Sabith, train her to use new technology during their yearly visit to the farm.

## **Family Members**

Her son, Ani, works as a farmer, fisherman, and shipment manager. His primary responsibilities include daily tending to the farm, fulfilling the shipment for all online orders, and taking care of Airbnb guests and the facilities. He is deeply skilled in farming (even implementing drip irrigation at the farm) as well as the physical work on the farm. The technology he uses includes farming mechanical tools, as well as Airbnb, Wix, and the messaging apps Signal and Whatsapp for internal communication. His brothers, Sajith and Sabith, train him to use new technology during his yearly visit to the farm.

Her older sons, Sabith and Sajith, are technology workers. The primary responsibilities help with the technological needs of the farm, including maintaining the Airbnb listings, the Wix Website, and the initial communications with the Airbnb guests. As well as using Airbnb and Wix, they also use



Signal and Whatsapp for internal communication. Sajith is our primary point of contact for our work concerning Ammachi's Organic Farm.

Her daughter, Sabitha, and granddaughter Theertha (whose nickname is Pathu) are occasional marketing volunteers on the farm. They are skilled at creating Youtube videos and Instagram posts, under the account "Pathu's Planet" (<https://www.youtube.com/@pathusplanet/>). So far, these videos have not been added or linked to Ammachi's Organic Farm website. They use various video/photography editing tools, as well as Wix. They also use Signal and Whatsapp for internal communication.

### **Additional Permanent Workers**

Suresh is a physical laborer on the farm. He works with Ani on the daily physical tasks needed and uses Whatsapp for internal communication.

Pangajum and Leela are maids on the farm. They assist with the cleaning and cooking of the farm buildings and also care for some of the animals on the farm and help with some farming tasks. They use Whatsapp for internal communication.

### **Technology Infrastructure**

The organization has been relying on some traditional technology for crop production. The farm has been using an irrigation system to water the paddy fields on the farm. The irrigation system is currently being regulated manually. The farm equipment also includes the power tiller that is used to prepare the soil for planting. Another traditional technology used is a tractor that can move heavy materials such as rocks or trees. To control the fast growth of bushes, the farm uses brush cutters.

On an Internet connection, the farm has WiFi, a wireless networking technology, that was installed for communication purposes of the family. Apart from the main house, each of the farmhouses posted on Airbnb has WiFi access.

The hardware use on the farm is quite limited. Mrs. Bhuvaneswari frequently uses her mobile device, mainly for her personal and professional communication. Additionally, sometimes she uses an Ipad to browse the internet or find necessary information. There is no laptop or PC constantly used on the farm.

In terms of the software, the farm has its website ([ammachisorganicfarms.com](http://ammachisorganicfarms.com)) built on Wix.com by our community partner. The website allows customers to perform basic functions, such as reading about the farm, buying the products, or contacting the farm. Moreover, the website also directs those guests who would want to stay for a vacation to its Airbnb postings.

### **Technology Management**

The farm does not have IT support, yet Sajith Venkit, the son of the farm owner, acts as an IT person (or 'accidental techie') in the organization. When it is needed, he asks his brother Sabith for help, since he has more technical knowledge. The farm has not escalated to external IT support before.

The website is built using a user-friendly website builder, so there was no need for backing up critical data or updating virus definitions. Many operational tasks like that are directly performed by the website builder itself. In case of any troubles or bugs, those are found when detected by users. Sajith and his brother try to fix them using their knowledge or support from Google.

Since it features farm products in stock, the website requires constant maintenance. For that purpose, Sajith contacts the farm every month or 2 weeks to keep the product postings on the website up-to-date. The notifications about new orders come directly to his mother and him. His daughter also helps with keeping track of the new orders.

Overall, website updates are not strictly planned but rather done on an ad-hoc basis.

## **Technology Planning**

At the moment, there is no technology planning happening on the farm. Moreover, there is no budget dedicated to technology. There is no particular person in the organization that is currently responsible for planning and budgeting for the technology infrastructure.

They have not attempted to do a technical plan before, since there was not an urgent need for that. The organization does not have a long list of problems across all areas of information management, communications, and management. However, the farm owner has come up with some general ideas on how the use of technology could be improved and developed in the future.

The client has several problems that could benefit from coordinated technology planning. For example, the client mentioned that the farm faced financial losses due to the wrong choice of crops. Sometimes this loss comes from inaccurate weather predictions, as well as a lack of market price analysis. A similar problem is solved by other farms through data analytics-based crop prediction systems. The farm could analyze the historical and real-time weather and agriculture data to make accurate predictions. Apart from that, the farm could facilitate the process of measuring temperature, PH level, and other essential information by setting the automated IoT sensors. This data could be collected and analyzed for more informed farming decisions. Another possible technological solution considered by a client was an automated IoT-based irrigation system.

## **Communication**

Internally, information is shared through the messaging apps Whatsapp and Signal using the organization's wifi network, as well as through oral communication. Information about online orders and upcoming Airbnb guests is shared using Whatsapp, while information between Sajith's daughter, Ann, and others is shared over Signal, as this is the messaging app she has the most familiarity with. Information about dairy farm tasks is communicated orally at the farm.

Externally, information is shared on the organization's website, and the Airbnb listing. Both the website and the Airbnb listing are updated regularly by Sajith and Sabith to ensure they are accurate. The website has only minimal information about the farm, including the background of the farm, a section to buy organic farm produce and contact information. In addition to the website, there is the Airbnb listing which gives an overview of the accommodations and physical environment of the farm stay. Currently, there is no direct communication with customers and donors. The contact information/email addresses of the customers of the organic farm are not collected at the time that they are ordering on the website. There is no newsletter being sent out daily. Additionally, the website serves mostly as a place for existing customers to order food, and it is not optimized for potential new customers to learn about the farm. There is not any detailed information about the history of the farm, the benefits of organic farming, or the philosophy of Bhuvanewari, each of which makes Ammachi's Organic Farm unique.

The organization may benefit from a greater emphasis on marketing, by using external communication tools like Youtube, Instagram, and LinkedIn. The website could be further developed to share stories about the farm that highlight its comparative advantage - its environmental and social impact, as well as the incredible hospitality of the whole family. The emails of customers may be able to be collected so that the organization can try to solicit donations from them for large projects, like restoring the pond on the farm. Additionally, they may also benefit from finding ways to reduce redundancies in internal communication - for example, sometimes, information like the online orders shipping information needs to be sent by multiple people because not all members of the organization are well versed in using Wix.

## **Information Management**

There is some information that is critical for the farm to record. Some of such information is stored digitally and managed by third parties like Airbnb or Wix. For example, the information about Airbnb bookings and clients is stored digitally by Airbnb and is crucial for the farm's hosting and mission of eco-tourism. Additionally, the information about orders comes from the Wix website. This is important for the farm's functionality because this allows the farm to successfully process the orders promptly. All digital information is collected regularly since it is entered by various customers and clients.

On the other hand, some of the critical information is managed via paper. For example, some order information would be recorded by Bhuvaneshwari in the notebooks. The reason for that is some of the orders are done through calls or in-person requests, so those are not managed by Wix. Those are also recorded regularly since orders can be made by different people at different times.

Some important information in the organization about invoices and expenses is not currently recorded. Even though no accounting system currently exists in the organization, the client admits that an expense management system might be beneficial to have in the future. At the same time, the client admits that such a technical solution is not of their current priority.

The digital data of the organization is stored in databases of Airbnb and Wix. For accommodation bookings, Airbnb stores this information in its local databases. It is stored in Amazon RDS and can be deployed in multiple availability zones. The Wix data is stored on secure servers behind a firewall through its cloud-based infrastructure. Both providers allow clients to export necessary data at any time in a convenient format.

For the remaining data, there is no existing database or information management system that can facilitate the processes for the farm.

## **Business Systems**

At the moment, there is no accounting management happening in the organization. The farm does not have any payrolls or other benefit systems. However, the farm has not faced any issues because of its absence.

There are no financial reports at the farm, yet the client understands that it might be beneficial to consider having an accounting system in the future. The farm doesn't have any external funding from funders or other organizations. Farm funding mainly comes from the family's pocket. In the future, farms would be interested in attracting more government funds, specifically for the pond's preservation.

## II. Revamping the Website

### Motivation

The client was interested in revamping the website of the farm since the old website only included basic functionality, such as making orders or contacting the farm. The navigation was slightly confusing, and it was challenging to find some important information on the website. For example, the information about two major services that the farm provides (farm tour and farm stay) was missing on the whole website.

Additionally, there were some problems with the website's responsiveness, and the mobile version of the website could be improved a lot. Considering that the majority of local website users access the website through mobile devices, it is essential to make the mobile version convenient to use. Hence, developing a new version of the website could significantly improve the user experience and the website's functionality.

### Achievements

#### Activities

The following activities were undertaken to make the website development process smooth and efficient:

- Creating a New Website Prototype
  - Learn Wix framework
  - Create a new page break-down of the revamped website (6 different sections)
  - Make low fidelity Wireframe of all the new pages (Miro boards)
  - Create new website visual and written content for the Website
- Conducting User Testing (Before & After)
  - Develop the performance metrics for the website
  - Develop user testing template & results sheet
  - Conduct 9 user tests of an old website
  - Conduct 9 user tests of a new website
  - Analyze the user testing
- Developing New Website on Wix
  - Develop a new version of the website on Wix
  - Publish the new website on an old domain
  - Write and add SEO page meta descriptions
  - Fix the URL paths for each page
  - Fill out all steps in the Accessibility Wizard
  - Make final changes according to feedback from meetings
- Ensure the Sustainability of the Website
  - Develop items for curating guidelines for the website
  - Have a training session on the website maintenance
  - Construct a list of further recommendations

After completing each of the activities, we asked the client (Sajith) for feedback. His recommendations, preferences, and critique have guided the website development process so that the final product would represent the farm's identity at its best.


## Outputs

Our main output was the new website, which includes the pages "Home", "About", "Shop", "Tour & Stay", "Lessons", and "Contact Us".

While developing the website, we produced the following outputs, in the form of documents and deliverables, that helped us and our client to analyze and move further forward at different stages of the website development:

- Website redesign brainstorm ([link](#))
- Low-fidelity wireframe on Miro ([link](#))
- Analysis of performance metrics ([link](#))
- User testing template ([link](#))
- User testing results sheet ([link](#))
- Written content for the website ([link](#))
- SEO: Meta Descriptions ([link](#))

To ensure the sustainability of the website going forward we developed:

- Curating guidelines for the website ([link](#))
- High quality logo download (  Ammachi's Logo.jpeg )

## Results

### Outcomes

Our updates to the website had the key outcomes of improving the efficiency of retrieving important information from the website, improving the visual design, and improving the communication of the brand of the farm through telling the story of Ammachi, her farm, and the value of organic food.

### Indicators

There are several indicators that we used to measure the success of our new website, which we collected through user feedback surveys. We tested users on their experience using the website both before and after we made our changes. These indicators are numbered below, with the associated outcome in quotations.

- 1) Decrease in the time to find important information (improved efficiency)  
In our survey, we asked our participants to locate 5 important data points including the length of the farm tour, the name of the most important award Bhuvaneswari has won, ect. We timed them on how long it took them to find this information, both before and after our changes. Overall, the time it took them to find the information they needed decreased by 76.23%.
- 2) The rating of the overall usability (improved efficiency)  
When participants were asked "*On a scale from 1 to 5 (1 being the least and 5 being the most), rate how easy it was to use the website*" The score before our changes had an average of 1.56, while after our changes, the score had an average of 5.00. This improvement had an increase of 221.43%.
- 3) The rating of the overall design (improved visual design)

When participants were asked “On a scale from 1 to 5 (1 being the least and 5 being the most), rate how much you liked the website design.” The score before our changes had an average of 1.267, while after our changes, the score had an average of 4.78. This improvement had an increase of 79.17%.

4) Positive feedback from user testing (improved brand)

We also left room for open ended responses from our participants about what they enjoyed about the website. Many people told us that they really enjoyed how the new website better told the story of Ammachi, and of the people behind the farm - “The About us section is... very powerful”, “The team profile is lovely. And I love all the writing and storytelling”, “I like the fact that in the 'About Us' section, you can see real people. Seeing a family picture makes business more trustworthy”, “Use of pictures and videos is great.”.

## Recommendations

There are several key things that we recommend for the website to expand its reach even further.

1) Make the website multilingual

For only a one time cost of 441 rupees, you can add additional languages to your website through an automatic translation service in Wix. This small cost would enable all people to understand the content on your website in the language that they are most familiar with, enabling more people to become aware of your services. Even if this enabled just one more person to buy a kilo of rice at 500 rupees, Ammachi’s Organic Farms would get a return on its investment. In order to implement this recommendation, you would go on Wix and click on the option to make your website multilingual.

2) Increasing the number of sites that direct back to your website

Ammachi has received a huge amount of press coverage in the past for her work. However, so far, none of these sources have included a link to Ammachi’s Organic Farms website so that viewers can buy one of Ammachi’s services and learn more about her. This is a missed opportunity. If you were get old and new press to include the link to Ammachi’s Organic Farms website, not only would this increase the traffic to your website, but it would also increase your website’s SEO rating, which would make the website more likely to be shown on the first page of someone’s Google Search results. We recommend reaching out to old and new press sources and getting them to feature your website link. To implement this in the old press releases, you would need to find the contact information of the key news sources which have covered her in the past, and send them an email which briefly describes your request, how it would help the farm, and the link of the previous article. Then, send the email. Additionally, in important youtube videos that feature ammachi, you could reply to relevant inquiries in the comments with the link to the website. To implement this in new press releases, always communicate this request to future news reporters and describe its importance.

3) Complete Google Merchant

We recommend listing your website’s products on Google Merchant for free. This would enable your products to be shown in people's Google Searches, which has the potential to greatly increase the amount of new customers to your website and increase the sales of your products. Completing Google merchant may take a couple hours, but would be worth this time of cost even with a few new customers a month directed from Google. To complete the Google Merchant profile, please see the following [article](#) for more information, and the following [video](#) for step by step instructions.

#### 4) Email Marketing

Targeted email marketing could increase the amount of customers that buy your products, watch your videos, and attend any events hosted on the farm. Writing a 10 minute brief email that just tells subscribers that it is mango season, or that there is a new youtube video, or that ammachi is hosting a workshop on rice cultivation, may increase sales and engagement with Ammachis Organic Farm. We recommend sending out a quick email everytime you update the product list, add a new video, or host an event on your farm.

### **III. Establishing Learning Platform on Youtube**

#### **Motivation**

The client encountered both a challenge and an opportunity. The challenge was the undocumented agricultural wisdom that sustains the farm, risking its future without Ani and Ammachi. While the farm's organic knowledge benefits its immediate vicinity, the opportunity lies in India's need for knowledge sharing and community engagement in organic farming due to inadequate government support. The global call for sustainable agriculture, amidst climate change, emphasizes expanding organic methods for their ecological benefits, including improved soil health and reduced carbon footprint. Bhuvanewari's regenerative approach enhances climate resilience and carbon sequestration, particularly vital in India's struggle to promote organic practices. Ammachi's Organic Farm's YouTube channel builds a supportive organic community and educates patrons about sustainable agriculture's impact.

To tackle this challenge and seize the opportunity, we established an educational YouTube channel with English subtitles. This platform spreads organic farming's significance and techniques across India, allowing Ammachi to share her wisdom widely, safeguarding the farm's legacy, amplifying its influence, and fostering awareness of organic farming's pivotal role in a healthier future.

#### **Achievements**

##### **Activities**

While creating the Youtube channel, the following activities were undertaken to make the process smooth for us and the client:

- Preliminary Research
  - Create personas of who the target user will be
  - Research future partnerships
  - Research International and local organic learning platforms
  - Decide on performance metrics
- Developing Plan for Videos and Future Lessons
  - Create storyboard for 3 lessons
  - Interview Ammachi about Lesson Plan & filming dates
  - Develop a lesson plan
- Film, Edit, and Publish
  - Film 3 lessons
  - Get automatic Malayalam translations using Veed.io

- Get translations to lessons in Malayalam to English from Sindu, Prof Lal’s wife
- Edit 3 video lessons
- Write captions for YouTube videos
- Write Youtube Channel Description
- Implement lessons on Youtube
- User Feedback
  - Plan user feedback survey
  - Approve user feedback survey
  - Conduct user feedback
- Ensure Sustainability of Project
  - Develop guide for video filming
  - Host meeting on training for video editing

After completing each of the activities, we asked the client (Sajith) for feedback. His recommendations, preferences, and critique have guided the Youtube creation.

## Outputs

Our major output was the creation of a Youtube Channel which has 3 videos, a channel description and Youtube banner.

During the creation of the we generated the following documents and deliverables that helped us and our client to make the process efficient:

- Transcription and Translation spreadsheet ([link](#))
- Youtube descriptions document ([link](#))

To ensure the sustainability of the social media going forward we developed:

- “How to” guide ([link](#))
- Unedited videos folder ([link](#))
- Intro & Outro folder ([link](#))
- Lesson Plan ([link](#))

## Results

### Outcomes

Our Youtube channel had the key outcomes of expanding the awareness of Ammachi’s sustainable farming techniques, driving engagement in the community, effectively teaching ammachi’s sustainable farming

### Indicators

There are several indicators that we used to measure the success of our new website, which we collected through user feedback surveys, and Youtube Analytics. We tested users on their experience using the website both before and after we made our changes. These indicators are numbered below, with the associated outcome in quotations.



- 1) Video quality average rating, and Percentage of people that would recommend to others (Effectively teaching content)

In the user survey that we sent we asked questions about how much they would rate the youtube videos across different dimensions, including what the average rating was for the quality of the content and whether or not they would recommend the content to others. These are important because they assess whether or not the content of the lessons is effectively teaching people, and if they are enjoyable to watch.

Our survey found that the average quality rating was 4.75, and the percentage of people who recommended this content to others was also 4.75.

- 2) Number of Unique Viewers and Total Views (Increased Awareness)

The number of unique viewers measures the number of distinct individuals who have accessed a particular piece of content, indicating the reach and potential audience size for that content. It's important because it highlights the diversity and breadth of the content's impact on different viewers.

Total Views refers to the cumulative count of how many times a piece of content has been accessed. It serves as a key indicator of the overall popularity and exposure of the content, helping to gauge its widespread appeal and resonance.

As of August 13th, there are 601 unique viewers of Ammachi's Channel, and 891 views across all videos.

- 3) The number of Comments and Subscribers (Increased community engagement )

The Number of Comments represents the count of user-generated feedback and interactions in the form of comments on a piece of content. It reflects the engagement level and the degree to which the content has sparked conversations and community interactions.

The number of Subscriber measures the count of users who have chosen to follow a content creator or channel. It's crucial because it signifies a loyal and invested audience base, indicating consistent interest and potential for continued viewership.

There are currently 22 comments, and 36 subscribers.

## **Recommendation**

For Ammachi's Organic Farm to continue to spread its reach, we recommend that they Partner with other organizations

This platform could educate and empower farmers across the nation while positioning the farm as a catalyst for broader agricultural transformation through partnerships

## **IV. Establishing Social Media Marketing**

### **Motivation**

Since the farm did not have enough reach through its website, we have identified the opportunity of developing a marketing plan for the farm through social media. By creating accounts on Instagram and Facebook, we can enhance the farm's online visibility and brand awareness. Enhancing the online presence of the farm will attract more clients from different regions of India, or even globally. This is important since most of the farm's services can be used by users all over the world.

Another reason behind developing social media marketing is that the engagement with the audience is much higher through social media platforms compared to that through the website. Ammachi can receive messages, comments, and inquiries directly from the clients, and get instant feedback from them. The farm's history is closely intertwined with the interesting personal stories of its members, so it is essential to share these stories with the audience online. By displaying the farm's stories on their social accounts, we can create a stronger emotional bond in an audience with the farm's brand.

As a part of the social media marketing, we have developed a brand logo that will be also consistent across the website and learning platform on Youtube. Building a logo is an important part of building a brand identity and cultivating a sense of professionalism and credibility in the minds of users. The family was closely involved in the creation process since the farm is a business that was created and maintained by the family.

## **Achievements**

### **Activities:**

While creating the social media content and marketing plan, the following activities were undertaken to make the process smooth for us and the client:

- Design a New Logo
  - Schedule meetings with family members to brainstorm on the logo and receive feedback
  - Complete design in Canva
- Establish Social Media Accounts & Content
  - Set up all necessary social media accounts with the client
  - Set up an account on Canva for Teams
  - Research on the Meta Business Suite tool
  - Complete SMM plan with written and visual content
  - Set up Meta Business Suite
- Complete Instagram & Facebook Accounts
  - Create highlights for Instagram
  - Schedule social media posts & reels
  - Schedule social media stories
  - Create covers for highlights
  - Create the page banner for Facebook
- Ensure Sustainability of Project
  - Develop curating guidelines for social media
  - Meet with a client to train them on social media maintenance

After completing each of the activities, we asked the client (Sajith) for feedback. This way, social media content, and marketing plan would be fully aligned with the client's needs and interests.

### **Outputs:**

Our main output was to develop the Instagram, Facebook, and Meta Business Suite accounts. We also published and scheduled a total of 14 posts, and 27 stories for highlights.

During the social media marketing planning, we generated the following documents and deliverables that helped us and our client to make the process efficient:

- Written content for social media ([link](#));
- Canva repo with the highlights, reels, and covers (on Canva account);
- Social media feed planning ([link](#))

To ensure the sustainability of the social media going forward we developed:

- Social media curation guidelines([link](#)).
- A repository of photography ([link](#))
- Document with list of all the tools and credentials needed going forward ([link](#))

## **Results**

### **Outcomes**

The major outcome from the new online presence on two major social media platforms, Instagram and Facebook, is increased awareness and engagement.

With an organic distribution of content, both pages already have been gaining impressions, follows, and reactions from a number of users. To showcase the results, we can present and analyze the statistics for both platforms within the last 90 days (Unfortunately, the baseline for this milestone was absent because social media accounts did not exist at all before. Hence, we will not be able to compare, but we can make some conclusions about the current data.)

### **Indicators**

#### 1. Increased Reach (Awareness)

Reach shows the size of the audience who have viewed the farm's content (number of unique users). In other words, reach is the size of an actual audience that you attract with your content online.

The Meta Business Suite statistics have shown that within the last 90 days, the Facebook reach is at 158, and the Instagram reach is at 113. Both reach indicators are not that high, since social media accounts and content are still fresh and there were no publication boosts and ads. At the same time, this is an impressive starting point, since initially there was no social media presence.



Image X. The Meta Business Suite statistics on reach (accessed on Aug 13, 2023)

## 2. Increased Page and profile visits (Engagement)

Page and profile visits indicate the number of times users visit your page or profile. Therefore, page and profile visits number reflect the extent to which users are interested in the content that you publish on your page or profile.

According to the statistics from Meta Business Suite for the last 90 days, the number of page visits on Facebook is 248, while the number of profile visits on Instagram is 123. Hence, people on Facebook seem to visit the farm’s page more than twice as often as on Instagram.

These numbers are not great indicators in general but are quite impressive numbers considering an organic distribution of content and the recent launch date of the accounts.



Image X. The Meta Business Suite statistics on page and profile visits (accessed on Aug 13, 2023)

## 3. Increased Followers (Engagement)

The number of followers indicates the number of users who found your page or profile interesting to the point they decided to follow it and receive updates about your new content and publications.

The Facebook page has gained 7 followers in the past 90 days, while the Instagram profile has gained 37 followers in the same period.

It is an interesting observation given that the page and profile visits are significantly higher on Facebook. Moreover, the farm has the same content planned for both social media accounts. The Instagram account has displayed good progress for a new page, while the number of followers for the Facebook page could be higher.

Facebook followers ⓘ

7

Instagram followers ⓘ

37

Image X. The Meta Business Suite statistics on followers (accessed on Aug 13, 2023)

## Recommendations

After analyzing the current progress of social media pages, the following recommendations could be taken into consideration to improve the indicators further:

1. Ad campaigns through Meta Business Suite

Creating ads and boosting existing or new publications can be the way to increase the potential reach of both pages. The posts and stories that showcase one of the main services of the farm or an ongoing campaign can achieve the best results when boosted. Meta Business Suite will allow the client to compare the price and potential reach distributions for each of the posts and stories.

2. Collaborate with local bloggers and influencers in Kerala

One of the effective marketing strategies can be collaboration with local influencers and bloggers. It might be beneficial to find someone who is influential in the same or similar field. For example, you can choose a blogger that focuses on organic food and healthy eating, or you can find an influencer who likes traveling and staying near nature. There can be many different options for collaboration, so you can plan and choose what would work the best for you. One option could be providing this blogger/influencer your service for free and in response asking for the mention of your brand in the story.

3. Consider Contests and Livestreams

Right now, most of the active or scheduled publications are informative rather than engaging. In the future, you could conduct contests and promotions on your social media pages. Even some small prizes can increase the number of reactions from your followers and other users. You could also Host live Q&A sessions or live streams where you address viewers' questions in real-time. This direct interaction with your audience can strengthen your community and provide valuable insights into the specific concerns and interests of your viewers.

## V. Additional Recommendations

### Tap into the Ecotourism Initiatives in Kerala

We recommend that you tap into ecotourism initiatives in Kerala by forming a strategic partnership with the local government's "[Green Farms](#)" Initiative. By partnering with the government, you'll tap into their resources for promotion (like being featured in [Kerala Tourism's list of Ecotourism stays](#)), infrastructure development, and even funding support. This partnership would not only boost your farm's visibility but also enhance your credibility as a sustainable agriculture advocate. It will attract a wider audience, and further showcase your organic farming practices to a wider public through educating them on the importance of sustainable agriculture and fostering a deeper appreciation for your products.

To implement this recommendation, begin by engaging with local government representatives and understanding the specific goals and guidelines of the initiative. Discuss with them ideas that you may need to implement to be considered for the program. Then, write and send in your application to the program that highlights your farm's commitment to sustainability and organic farming methods.

## About the Consultants

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