



## Promoting local agritourism: A case study of Indigenous agritourism businesses in Hualien County, Taiwan

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### ABSTRACT

*For many tourists, experiencing local cuisine stands out as the most appealing aspect of Indigenous tourism. Tourists primarily gather information about tourism destinations through social media, which significantly influences their decision-making process. This preliminary study delves into the imagery of Taiwan's Indigenous food as portrayed on social media by conducting a content analysis of Google reviews for 20 businesses that specialize in Taiwan's Indigenous cuisine. The analysis yielded seven distinct dimensions of Indigenous food imagery: Indigenous cultural features, price and portion, dining style, healthiness, flavor, dining atmosphere, and perceived service quality. Based on these findings, the study proposes empowerment and guidance strategies, encompassing the integration of wild vegetable culture, tribal itineraries, and food promotion. These strategies aim to develop local agritourism businesses, augment local sources of income, and encourage the retention of young people in rural development.*

Keywords: indigenous, culture, agritourism, food image, wild vegetables.

### INTRODUCTION

Rural and agritourism, encompassing tourism activities in agricultural settings, allows farmers to utilize their agricultural production while offering leisure services. This approach aims to enhance tourism activity and consumption (Chiang *et al.*, 2003). In Taiwan, leisure agriculture traces its origins to 1965 with the establishment of the first tourist orchard. Subsequently, the government augmented investments in this sector, with the Ministry of Agriculture (MOA) under the cabinet formulating policies and regulations to steer recreational farms and agritourism, like the Regulation for Counseling and Governance of Recreation Agriculture. As of 2021, Taiwan boasted 507 legally registered recreational farms and 104 recreational agriculture areas. The Farm Tour Market, an e-commerce platform, amalgamated 173 agritourism enterprises to foster agricultural experiences, farm-to-table dining, farm stays, and package tours. This platform markets over 500 tourism products, enabling tourists to organize trips to agricultural locales. In 2021 alone, leisure agriculture attracted approximately 22 million participants, generating a revenue of around US\$293 million (MOA Annual Report, 2021).

Agritourism, intertwining natural resources with agriculture, offers tourists a glimpse into agricultural production, life, and ecology. It is crucial for tourists to engage with local farmers and comprehend the nuances of agricultural production, thereby spurring the purchase of local food and ingredients. This interaction also provides farmers with valuable insights into consumer trends and the opportunity to adopt eco-friendly agricultural practices. Hence, leisure agriculture acts as a beneficial mediator for the environment, farmers, and consumers. The allure of these areas, augmented by experiential itineraries, bolsters tourists' intent to participate and revisit (Chen and Chen, 2013). Dining, a pivotal aspect of tourism, enriches the experience; local food encounters not only diminish the travel distance of food and associated carbon emissions but also invigorate local food systems.

This case study delves into Indigenous agritourism in Hualien county of Taiwan, examining how local food and traditional food culture contribute to the development of agritourism in the region. By partaking in agritourism, Indigenous communities can diversify their income sources, encourage youth retention for rural development, and rejuvenate their traditional agricultural and dining cultures.

## LITERATURE REVIEW

### **Agritourism in tribes**

Liao and Lin (2019) explored the impact of tourism on the Huanshan Tribe in Taiwan, revealing how tourism development has boosted job opportunities and economic growth. They noted the pride and cultural identity among the tribal members, balanced against the challenges of environmental noise and cultural dilution due to tourism. Chang *et al.* (2020) examined the sustainable development of ecotourism in the Cinsibu Atayal Tribe, highlighting the crucial role of government and religious organizations in promoting tribal tourism. This approach not only preserved the tribe's cultural heritage but also achieved economic self-sufficiency through job creation. Wu *et al.* (2018) focused on the post-disaster reconstruction of indigenous villages in Taiwan, assessing the recreational benefits and tourism development. Their findings emphasized the significant economic benefits tourism brought to these communities, despite challenges in increasing tourist engagement and willingness to pay for environmental conservation. Lastly, another study by Chang *et al.* (2018) on the Alishan Indigenous Tribal Tourism underscored the impact of governmental tourism planning on economic and cultural development. The study suggested combining the tribe's natural resources and cultural heritage with tourism to enhance the local food image and cultural appeal. In summary, these studies collectively underscore the importance of agritourism and ecotourism in creating employment, fostering economic growth, and enhancing the cultural and food image of Taiwan's indigenous tribes. They highlight the need for balanced tourism development that respects cultural identity and environmental sustainability, emphasizing the role of government, community, and religious organizations in this process.

### **Understanding the imagery of indigenous cuisines on social media**

Food imagery at a destination is positively correlated with tourists' revisit intentions, and tourists' purchase decisions are significantly influenced by various sources of information (Karim & Chi, 2010). Many scholars have asserted that food imagery affects tourism behavior and identified food imagery and preferences as major reasons for traveling. The scholars have also argued that destinations should identify and enhance their food imagery to increase tourists' willingness to taste local food (Peštek and Injarevi, 2014; Seo *et al.*, 2017; Chang and Mak, 2018).

## METHODOLOGY

The study conducted a content analysis of social media reviews to analyze the imagery of Indigenous food as perceived by tourists and consumers. This analysis was instrumental in informing the creation of guides for local Indigenous agritourism activities. The data comprised Google reviews of 20 agritourism businesses offering Indigenous cuisine in the Hualien county. The total number of comments collected was 4,434. For the content analysis, after removing meaningless text and images, 7,809 phrases (each comprising two or more characters) were obtained. The minimum frequency set for each word to be considered in the analysis was five occurrences.

## FINDINGS AND DISCUSSION

### **Content analysis of social media**

This study conducted a content analysis of social media reviews to analyze the Indigenous food imagery perceived by tourists and consumers. The results informed the subsequent creation of guides for local Indigenous agritourism activities. Google reviews of 20 agritourism businesses that offer Indigenous cuisine in the Hualien county were collected and compiled, totaling 4,434 comments.

Content analysis was performed using MAXQDA 2022, a qualitative statistics software. After removing meaningless text and images, 7,809 phrases were obtained. The minimum frequency of each word was set at 5 times. The results revealed that the most frequent word was “delicious (好吃)”, which

occurred 70 times and accounted for 57.14% of instances, followed by “wild vegetables (野菜)”, which appeared 5 times and accounted for 9.52% of instances.



Figure 1. Analysis of social media reviews. “Delicious” appeared as the most frequent word, followed by “wild vegetables.”

Source: this study

Based on these results, wild vegetables are a major element in tourists’ perceptions of food imagery in Guangfu Township, which is a habitat to over 30 species of wild vegetables.

Many consumers have also agreed that the restaurants were reasonably priced, provided a greater value than the asking price, and offered substantial portions; some also expressed that the restaurants were somewhat expensive. The dining experience offered by the restaurants was suitable for family outings, group gatherings, or eating with children. Regarding the ingredients, most consumers perceived the ingredients to be fresh, healthy, refreshing, light, and tasting of local and original flavors. About affective imagery, most reviews described Indigenous food by using positive phrases such as “delicious,” “wonderful flavors,” “refreshing,” “fragrant,” and “must order.” Some reviews also contained negative phrases such as “tastes bad” and “not delicious.” As to the tourists’ dining mood, most reviews expressed experiencing relaxed, happy, joyful, wonderful, elegant, and leisurely emotions when dining; however, some reviews were negative, stating that the meals were disappointing or of poor quality. Most reviews described the service as warm and attentive and suggested a willingness to recommend and support the restaurant. Overall, most reviews were positive.

Sorting the 4,434 reviews through a content analysis yielded seven principal dimensions of Indigenous food imagery. Their main attributes of each dimension are listed as follows:

- Indigenous cultural features: Unique wild vegetables, knowledge on a fish-based diet, and Indigenous souvenirs.
- Price and portion: Product prices and food portion sizes.
- Dining style: Family outing, group gathering, and child friendly.
- Healthiness: Fresh ingredients, healthy ingredients, local ingredients.
- Flavour: Delicious, not delicious.
- Dining mood: Happy, not happy.
- Perceived service: attentive, inattentive.

The content analysis of social media reviews revealed key dimensions of Indigenous food imagery, notably the frequent use of “delicious” and the prominence of “wild vegetables.” These findings align with Karim & Chi’s (2010) research, which underscores the importance of food in shaping a destination’s appeal. However, our study uniquely highlights “wild vegetables”, a less explored aspect in existing

literature, thereby providing new insights into the specificities of Indigenous culinary appeal in Hualien county. This aspect of Indigenous cuisine, reflecting a blend of local biodiversity and culinary traditions, suggests potential avenues for promoting Indigenous agritourism by emphasizing unique culinary experiences rooted in the local environment and culture. The comparison with existing literature thus not only validates the significance of our findings but also positions them within a broader academic discourse, contributing to the understanding of agritourism and its development strategies.

### Developing activities with wild vegetables

The analysis indicated that drafting plans to guide and empower Indigenous farms should integrate wild vegetable culture, tribal itineraries, and tribal cuisine to develop local agritourism businesses. In addition to diversifying local sources of income, this may encourage young Indigenous people to remain in their communities and contribute to local development. Eight agritourism businesses participated in the study: Dajili Tribal House, Yearning for the Sea, Cherry Blossom Fields, Tafalong Red Sticky Rice Activity Center, Shin-Liu Farm, Pangcah Farm, and the Fuliang Cooperative. The guidance plan comprised three main dimensions:

- Setting up experiential wild vegetable gardens: Foods and crops in Indigenous areas are typically retained by Indigenous communities or foraged. However, population loss and generation gap in rural areas have exacerbated the loss of proper seed conservation techniques, resulting in a rapid decline in crop species diversity. Therefore, assisting local businesses in keeping an inventory of local species and setting up experiential wild vegetable gardens to facilitate the on-site conservation of local species can preserve the genetic resources of Indigenous crops. Experiential gardens also provide venues for agritourism activities that improve the local economy and preserve and continue traditional cultures.



Figure 2. Left: Setting up experiential wild vegetable gardens and educational placards. Right: Zoomed-in image of the placard.

Source: this study

- Developing local cuisines using Indigenous ingredients: Businesses were provided guidance to develop 58 unique recipes using local ingredients.





Figure 3. Developing local cuisines using Indigenous ingredients

Source: this study

- Developing experiential activities: Businesses were provided guidance in planning and optimizing eight experiential activities: eating, playing, and touring in Taroko, therapeutic nature painting, picnicking, DIY rice wine lees, a leisure itinerary in Mafulong, wild vegetable foraging, rice wine sampling, and rice ball classes.

Table 1. Experiential activities using wild vegetable gardens as the theme

Business	Activity	Details
<b>Dajili tribal house</b>	Eating, playing, and touring in Taroko	<ul style="list-style-type: none"> <li>• Becoming acquainted with Taroko plants and culture</li> <li>• Archery</li> <li>• Handweaving</li> <li>• Millet milling</li> <li>• Banana and sticky rice cake making</li> <li>• Bamboo rice making</li> <li>• Dajili wood accessories painting</li> </ul>
<b>Yearning for the sea</b>	Therapeutic nature painting	<ul style="list-style-type: none"> <li>• Introduction to different colors for painting</li> <li>• DIY glass painting</li> </ul>
<b>Cherry blossom fields</b>	Picnicking	<ul style="list-style-type: none"> <li>• Introduction to wild vegetables and civilization</li> <li>• DIY cuisine with wild vegetables</li> </ul>
<b>Red sticky rice activity center</b>	DIY rice wine lees	<ul style="list-style-type: none"> <li>• Introduction to Amis plant culture</li> <li>• Sticky rice milling</li> <li>• DIY rice wine lees</li> </ul>
<b>Shin-Liu farm</b>	Mafulong itinerary	<ul style="list-style-type: none"> <li>• Traditional fishing lesson</li> <li>• Campus tour (including wild vegetable gathering)</li> </ul>

<b>Pangcah farm</b>	Wild vegetable foraging	<ul style="list-style-type: none"> <li>• DIY cooking</li> <li>• Introduction to wild vegetables</li> <li>• Gathering wild vegetables</li> <li>• DIY cooking with wild vegetables</li> </ul>
	DIY fermented rice wine	<ul style="list-style-type: none"> <li>• Steam the rice</li> <li>• Cool down</li> <li>• Mix with fermentation starter</li> <li>• Bottle</li> <li>• Seal the bottle</li> <li>• Finished product</li> </ul>
<b>Fuliang cooperative</b>	Rice ball classes	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Silo tour</li> <li>• DIY rice processing</li> <li>• DIY rice balls (using locally produced rice with traditional Indigenous ingredients)</li> </ul>

Source: this study

## CONCLUSION

Research into Indigenous agritourism activities has revealed that the most appealing feature of a destination is its cuisine. This study identified seven dimensions of Indigenous food imagery to serve as foundation for promoting tourism. Furthermore, this study developed strategies to empower and guide local agritourism activities, such as creating wild vegetable gardens and developing local recipes. Consequently, local businesses can offer in-depth experiences or hands-on agricultural and food education. Wild vegetables can also be used as basic ingredients in restaurant cuisines. Therefore, consumers can see, touch, and taste what local agritourism businesses offer on the activities. To plan agritourism experiences, businesses can be taught how to reinforce the appeal of tourism activities according to customers' perception of food imagery and the use of their five senses. To bridge these sensory experiences with practical applications in agritourism, the study suggests a multi-faceted approach as follows:

- First, enhancing the novelty of Indigenous agritourism experiences by creating wild vegetable gardens: Indigenous agritourism businesses can plant, purchase, or gather wild vegetables, which they can cook and serve to tourists. However, most tourists rarely see these vegetables in their natural state and have difficulties connecting vegetation in the wild to the dishes on the table. Setting up wild vegetable gardens not only facilitates the conservation of wild vegetable cultivars but also allows tourists to learn more about wild vegetables and create new and unique agritourism experiences.
- Second, leveraging Indigenous culture to reinforce tourists' impressions and increase return rates: Each tribe has its unique tribal culture and memory, and Indigenous people who grew up in tribes have a wealth of experience and living memories of wild vegetables. If stories and materials can be collected from tribal elders or their literature, the culture surrounding wild vegetables can be distilled and shared with tourists through agritourism, which reinforces tourists' impressions of wild vegetables. By deepening tourists' knowledge of local identities, tourists are more likely to return.
- Lastly, understanding food imagery among restaurants, suppliers, and other stakeholders: This study only examined food imagery among customers in social media reviews. Future studies can examine food imagery shared by restaurants, suppliers, and other stakeholders and compare the results; the findings can be subsequently used to promote local food brands.
- Furthermore, accommodations are another major factor for tourism. Future studies can analyze local bed and breakfast establishments and examine the interactions among wild vegetable gardens, Indigenous cuisine, experiential activities, and accommodation experiences to identify all the dimensions of Indigenous agritourism.

Eventually, this research provides valuable insights into the potential of Indigenous agritourism as a sustainable and culturally rich tourism model. By focusing on authentic culinary experiences, sensory engagement, cultural integration, and sustainable practices, Indigenous agritourism can create unique and memorable experiences for tourists while supporting and preserving local Indigenous cultures and environments.

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## AUTHORS' CONTRIBUTIONS

Yi-Shan Wang designed the research, collected and analyzed the data. Cheng-Hua Sun organized, strengthened and performed the final paper.

## COMPETING INTERESTS

Yi-Shan Wang and Cheng-Hua Sun have received research budget from the MOA, Taiwan.