

RESEARCH ARTICLE



Semiotic Analysis on Sustainable Community Farming: Multimodal Analysis, A Case Study of Community Farming at Desa Impian, Merbau Sempak, Selangor, Malaysia

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Abstract

The majority of global population is in the cities and most tourists are concentrated in the cities. Research on the relationship between urban farming and tourism is gaining popularity in urban studies. In Malaysia, community urban farming has been identified as a solution to sustainable development to provide food in or out of the city. This study is about how the community at Desa Impian, Merbau Sempak promotes organic vegetable farming to academicians and business communities. The idea is to promote this area as a sustainable tourism hub for researchers and business communities. This study is a multimodal semiotic analysis to better understand the dynamic of community farming culture in Malaysia. Using qualitative design and multi-layered analytical framework to explore interactive meanings construed through the functionality of various semiotic resources in multimodal narratives this study reveals the dynamic multi-layered nature of government, individual community members, and public voices about community farming culture from a Malaysian socio-cultural context. On a deeper level, farming at Desa Impian means self-identification and sharing of identity that gives rise to a sense of belonging. This study contributes to the knowledge of multimodal socio-semiotic and narrative theories on sustainable urban farming tourism in Malaysia.

Keywords: agro-tourism, semiotic, sustainable community, sustainable tourism, urban farming

1. Introduction

United Nations Sustainable Development Goals (SDGs) were established by all United Nations members in 2015. In the SDG 2022 Reports, the United Nations reported that data from 962 cities around the world shows public spaces such as green areas are poorly distributed, an issue that needs to be addressed by policymakers and city authorities [1]. The same report shows soaring food prices affecting 47% of countries in 2020. Increasing food production may not be a viable option as almost 90% of the global deforestation is due to land clearing for agricultural expansion authorities. Apart from the increase in food prices, 13% of the world's food is lost after harvesting before reaching retail markets due to inefficient transportation, storage, and processing systems [1].

The food supply chain inefficiency, rising food prices, and low employment rates in low- and middle-income countries contribute to food insecurity [2]. The covid-19 pandemic has disrupted agricultural supply chains which increased prices and created food shortages [3]. The covid-19 pandemic exposed the weakness in the upstream food supply chain as farmers in Cameron Highland were unable to harvest their crops due to the enhanced movement control order by the authorities [4]. Apart from the pandemic, the food supply especially for vegetables is expected to increase due to uncondusive weather [5]. This is on top of the vegetable price which rose to 3.8% due to limited supply last year [6]. In addition to the economic effect of high food prices, food insecurity also hurts health as low dietary diversity may result in low birthweight and stunting among children [7]. In 2014, the prevalence of children in Malaysia feeding with less food variety due to financial constraints was 20.8% and in 2019, Malaysia recorded an increase of 14.1% of underweight children below 5 years old compared to 12.1% in 2015 [8].

In urban areas, community farming is one of the solutions to solve the food insecurity problem. The threat of climate change and shrinking agricultural areas make community

farming in urban areas an effective way to promote sustainable development and tackle food security problems [9]. Taking Singapore as an example, the conversion of unutilized space as urban farms able to produce up to 400kg of vegetables a day [10]. Amid its potential, community farming also has its challenges such as cost, labor shortage, and a limited range of crops suitable for the farm [11]. The labour force will come from the community members themselves. Hence, it is vital to encourage the local buy-in of the urban farming policy by the mainstream of society.

Increasing equality of access to food is vital in avoiding food insecurity [12]. Research on food security rests on four elements: sustainability and environment, socioeconomics, politics, and culture [13]. Food security depends on the culture of how we obtain, process, prepare, and eat our foods [14]. The culture consists of local culture, values, and traditions passed from one generation to another [15].

Agro-tourism has rapidly grown tourism activity that brings tourists to a farm. It is a new concept of tourism activities as it offers tourists multiple activities relating to the agriculture sector [16]. Malaysia, rich in agricultural resources has the potential to develop agro-tourism such as experiencing activities in the orchards, animal farms, homestays, and research centers [17]. Forest Research Institute Malaysia, Kepong (FRIM) for example used to be a mining site but was converted into a forest and research centre opened to the public. Desa Impian had previously attracted various local universities to conduct research and other onsite activities. "Library Cikgu", an old van converted into a library is an initiative by the local community in Desa Impian had gained popularity among local and international tourists after it was reported in various local news channels and social media. The agro-tourism industry at Kg Desa Impian has the potential to be developed in nurturing community engagement, elevating local pride, and most importantly preserving cultural heritage.

By paying more attention to the elaboration of meaning – or symbolic value – of the local community, we can develop innovations to the policy that are more appealing and relevant to a wider range of potential users, especially by positioning sustainable products, services, and systems as aspirational choices that lead the community to improved wellbeing and happiness. This research describes the language, the livelihood system, the system of living equipment and technology, the religious system, the social organization system, the semiotic code, and continued application that would contribute to building environment sustainability in the chosen study area. At the end of this research, we can shed a new perspective for understanding the symbolic aspects of consumption as a social signifier and highlight the opportunities this opens for sustainable design to influence societal transformation. The result of this study can be used by the local government/policy makers in enhancing the implementation's effectiveness of the community farming agro-tourism policies.

The objectives of this research are to understand the culture of community farming in social, economic, and environmental benefit, and to study the future community farming environment effect, the role of the relevant authorities such as local government and the Ministry of Agriculture and Food Security.

2. Literature review

Successful community farming depends on the members of the community gaining multiple streams of benefit from the farm [18]. In rural areas, whenever we speak about community farming, we cannot run away from discussing the issues of agriculture, women's empowerment, youth, and poverty [19]. In remote rural areas, communities lack information, and natural and financial capital to sustain their farms [20]. The government plays a vital role in empowering the local entrepreneurs within the community farming to develop the national economy [21]. For community farming in urban areas, the community is motivated by organic farming which means the activities, and the objectives of the farms need to be determined and communicated to multiple stakeholders such as the community members and the local government [22]. Slums in urban areas pose another set of challenges in community farming whereby it involves increasing the community members' participation, and human resource capacity, improving the livelihood of the community members, and formulating a sustainable model for community-based farming activities [23].

Community farming has the potential to solve the problem of food security [24]. Although community farming has the potential to provide food sufficiency and food security, it has the problem of being sustainable [25]. The problem of sustaining the community farm among others came from the resistance to participate in community farming as it is not part of the culture of the community members [26]. In addition, converting community farming into agro-tourism requires proper planning and policies as it has positive and adverse impacts on the safety, job, and business opportunities and social-cultural of the community [27]. The local community buy-in of agro-tourism depends on the local community's understanding of what the benefit tourism can bring not only to the whole community in general [28] but also to individuals such as employment and additional income to the skilled and unskilled workers [29].

Cultural experience had a high magnitude of influence on agro-tourism destinations [30]. In developing the agro-ecological of a rural area, agro-tourism can revitalize the rural eco-efficiency in the said rural areas [31]. Apart from increasing eco-efficiency, agro-farming also has a positive impact on the society and economy of the said area [32]. Farming culture among the local community is essential in nurturing agro-tourism because community engagement is substantial in ensuring the sustainability of agro-tourism [33]. The local community may implement various strategies such as increasing community involvement, partnerships in promoting and marketing the area with travel agents and creating community-based and sustainable agro-tourism branding [34].

The study of farming culture usually involves farming practices, beliefs, and values change due to external pressure to adopt environmental practices, identify mechanisms that these changes can happen, and understand the role of participating stakeholders in effecting these changes [35]. There are a lot of physical rituals by the community members in farming activities that are apparent only from cultural studies [36]. It is not sufficient to understand the culture, we also need to be able to change the culture. The current farming culture tends to follow the cheaper and easiest method which may not be sustainable in the long run [37]. To influence sustainable farming practices, regulations, policies, and behaviour nudging could benefit from a better understanding of the culture in farming [38].

Semiotics research focuses on the doctrine of signs, communication, and signification – is a way to look at the production of meaning from perspectives in defining realities of culture through sign systems that serve as ideological functions that interpret the realities of culture in question clearer [39]. Semiotics is a research method that is specially designed to decode cultural practices and track and predict cultural change [40]. Semiotics is based on the ideology that signs are a manifestation of the feelings, reactions, and motives that are inherent in people's sign-using capacity [41]. Most semiotic research on tourism revolves around the natural beauty, social life, and culture of the society [42]. The current trend is in sociolinguistic research in tourism, semiotic landscapes, language materiality, and multilingual and multimodal practices to decipher the connection between language and human activities [43].

One of the main bases of semiotic research is investigating spoken dialog [44]. In studying farming culture, we need to emphasize the language used by the community to spread the culture among its members [45]. Both the social and semiotic nature of language had a broader significance that transcends all aspects of human activity and existence [46]. The other basis of semiotic research is visual which provides an analytical lens and categories for interpreting nuances of the meaning of the visual [47]. Visual provides multiple signs coming from words, sounds, and visual images [48]. Visual images can include colour, iconography, modality, typography, visual grammar, and positioning [49]. Semiotic multimodal analysis can effectively explain community farming because modes and their use are studied in a social context; thus, community farming culture is about translating not only text or images but also semiotic systems deeply rooted in evolving social practices [50]. New emerging social economics trends will always collide with old habits, engendering novel syntax, semantics, and pragmatics of human behaviour [51]. The collision of old habits or culture and new norms causes fear and confusion which leads which slowing the diffusion of new norms and ideas [52]. The latest trend in semiotic research shows that it has gained popularity in determining consumers' intentions [53].

Based on the literature review, we provide the following research questions of this research.

- I. What influence do business motivation, human resource capacity, community participation, and economic business management have on agro-tourism community farming-based economic empowerment in handling community farming?
- II. What are the direct and indirect relationships of agro-tourism, community farming, community capacity, and business capital support for improving the welfare and independence of the community?
- III. What is the sustainability model for handling agro-tourism community farming in that community?
- IV. How do visual semiotic resources function to realize interactive meanings in the narrative constructions of agro-tourism community farming represented in Malaysia.

3. Methods

Semiotics is research on the interpretation of signs and symbols and what these signs and symbols mean. In this research, we are applying semiotic research to agro-tourism community farming to understand the various signs and symbols associated with agro-tourism and how they contribute to the overall meaning and communication among the members of the community and other parties such as the consumers as well as the local authorities within the agro-tourism context. This research investigates the symbols and signs used in agro-tourism practices such as logs, signage, and visual representations by analyzing their meaning within the agro-tourism community. By understanding different communication strategies both linguistic and non-linguistics, we can conclude how messages are conveyed through visual elements of agro-tourism. The cultural semiotics enable us to understand how agro-tourism practices are entrenched in the cultural context of the community in Desa Impian, Merbau Sempak, and how they contribute to the identity of the community. Multimodal semiotic analysis enables equal attention given to all aspects such as conceptual connections between motivated signs, the maker of the signs, interest, and the choice of modal and semiotic resources used in a text of the research subject [54]. The multimodal approach is a creatively adding value process via looking at the text that conveys an idea and is constructively alluring for specific social action [55]

In this research, we are using verbal and text modes, multimodal semiotic research also looks at other semiotic modes like interactivity between two or more people [56]. The spoken language in the interactivity between two people or more reflects the experiential meanings of the participants [57]. In this research, we collect visual images, signs, and symbols from Desa Impian area. We choose primary texts that are relevant to the context of our study such as signage at the farming spaces, social media postings, advertisements of farming products on social media, and recorded conversations of the Participants of focus group. The chosen texts are associated with agro-tourism activities at Desa Impian, Merbau Sempak area. By analyzing these texts, it can provide insights into the discourse surrounding the agro-tourism activities in the said area.

Apart from verbal and text modes, this research also looks at the video recording of interviews of participants to the focus group to create a multimodal understanding of the community farming issues as the videos can capture speech, images, facial expressions, voice tone, and body gestures of the participants [58]. In this research, we identify relevant text, verbal, and non-verbal text such as facial expressions, and analyze how these texts and visual elements convey meaning. We then break down these data into individual signs and codes and interpret the meaning behind the signs and the codes. We look at the spaces at the farm we used, the culture, and agro-tourism within social context to understand how the meanings are constructed. The analysis looks at the context in which the signs and symbols are used. We then look at the recurring themes, metaphors, and narratives related to agro-tourism activities. This research then puts these data into code and categorizes the data based on themes that emerge during the analysis. The spoken language of the focus group discussions provides direct insight into the beliefs, values, and attitudes of individuals within the Desa Impian, Merbau Sempak community. Multimodal semiotics analysis provides a

holistic analysis of how written texts, visual elements, and focus group discussions interact and complement each other in narratives related to agro-tourism in the area.

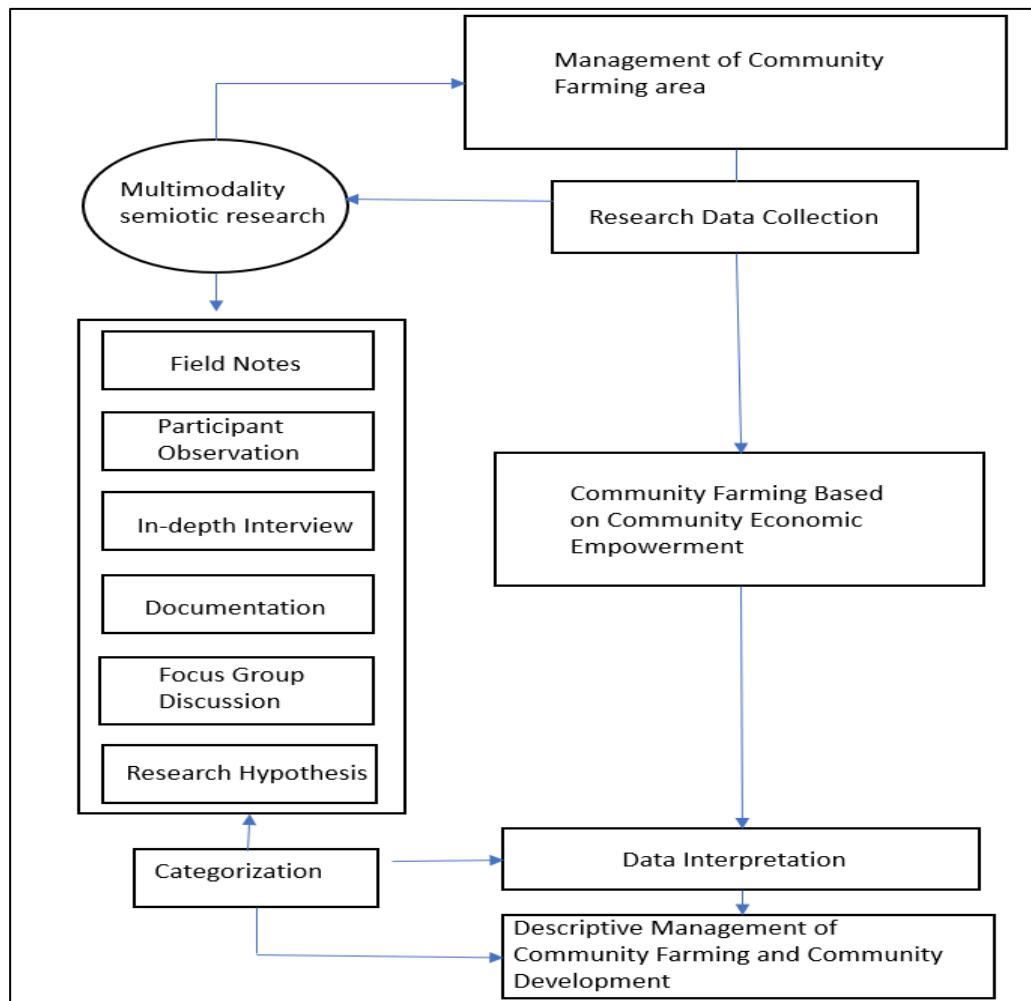


Figure 1. Research design

With the advent of the social media era, most community members have their social media such as Facebook and Instagram. The community members are using social media where they post their activities. By connecting multimodal text-making and semiotic practices, we can study social media as semiotic technology in the current semiotic research methodologies [59]. Social media posed a problem to construe the real meaning behind the text. The complexity is due to the language used must be read together with nonverbal language and other visuals used in the media [60]. In analyzing data from social media, this study is using two stages process of (1) identification of themes based on the classification of collected data and (2) in-depth analysis of selected samples representing the themes of the collected data. The data from social media was collected from Facebook postings with the hashtag #DesaImpian that received the most engagements such as Likes, Comments, and Shares [61]. The Desa Impian community activities have always been reported in social media and newspapers. Newspapers' semiotic discussions presented a deeper understanding of the social realities from the perspective of the community members [62]. The focus group discussion was conducted to decode the semiotic discourse about how the idea of community farming can create a sustainable community. This study conducted a focus group discussion with community members aged between 40 to 70 years old who are involved in the community farming activities at Desa Impian. Based on our findings, the younger generations in the area were not interested in the agro-tourism activities. The farming activities at Desa Impian, Merbau Sempak were done by only a group of people, and their ages ranged from 40 to 70 years old. The focus group members were given the semiotic text

of the newspaper's reporting and social media postings a week before the date of the discussions. The length of the discussion was 60 minutes and was visually recorded. The following Figures 2 (a) and (b) are the newspaper reports that have been selected to be discussed for the semiotic analysis.



Figure 2. (a) Sinar Harian: March 24, 2023; (b) Sinar Bestari, March 6, 2023

4. Result

Desa Impian is within the Merbau Sempak district and is believed to be established more than 100 years ago in 1912. Based on the local folklore, the name Merbau Sempak came from the incident where a Merbau tree was struck by lightning and split into two. The said Merbau tree is said to still exist in said area. This mystical folklore was passed through generations by word of mouth creating mythology and building up a legendary reputation of the said area. Minang/Mandailing was an ethnic migrated from Minangkabau and Negeri Sembilan began to create their settlement in Merbau Sempak. These settlers were mainly involved in agricultural activities or worked on the estates. Due to the increase in population and economic activities in that area, British administrations began granting land titles to the settlers. One hundred and eleven years later, Merbau Sempak had grown into a high-density suburban area.

Located 27 kilometers or 30 30-minute drive from Shah Alam, the state capital of Selangor, Desa Impian is highly accessible via Guthrie Corridor Highway that connects it with Kuala Lumpur and Shah Alam. Desa Impian is unique as it is not a rural or urban area. It is more of a suburban area on the outskirts of Shah Alam. Due to its strategic location and demographic factors, Desa Impian is an attractive subject for this research.

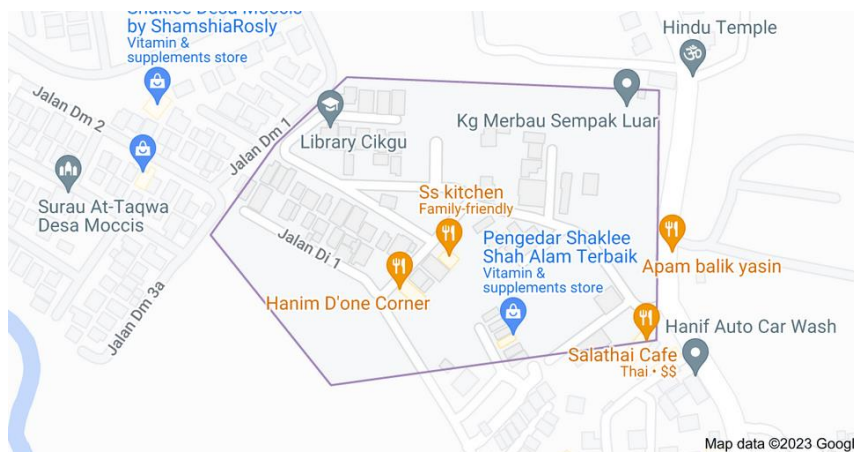


Figure 3. Google map of Desa Impian, Merbau Sempak area

Based on the Google map, we can see Library Cikgu, another main attraction that Desa Impian was famous for. Library Cikgu is an old van converted into a small library. The makeshift library houses more than 1000 books. The name Library Cikgu is taken from the name of Participant 1, a retired teacher who came up with the idea in 2020 to inculcate the reading habit among children in the community. Participant 1 is a retired teacher. "Cikgu" is a Malay word for "Teacher". Participant 1 is the community leader at Desa Impian. Library Cikgu can attract children to the library through various activities and incentives. The children that came to the library were mostly from Desa Impian itself and surrounding areas like Desa Moccis. It was reported in mass media and social media, and this attracts local and foreign tourists.

Desa Impian has a small number community comprising 40 houses only. The close-knit community comprises of 40 houses. The demographic of the community members is mostly Malay ethnic aged 40 and above. Most heads of families came from diverse academic and working backgrounds. Some are professional like Participant 3, a 62-year-old former Petronas employee who owns a company distributing rice to various government and private institutions. He also has a homestay business in the Merbau Sempak area. The community also comprises people who do not have tertiary education but have their own business such as Participant 4 who deals with heavy mechanical machinery spare parts. His teenage daughter is helping him with bookkeeping and handling social media such as Facebook to promote his business.

Participant 1, a retired teacher, is the de facto community leader. The community has a loose governance structure for its community-based organization. This traditional leadership provides collective decision-making, resource management, and distribution of responsibilities. The community put their trust in Participant 1 to make decisions and deal with third parties on their behalf. Once we organized an entrepreneurship workshop for the community members which also included breakfast and lunch for the community members and researchers. As we want to empower the community, we source out the catering service to one of the community members. All dealings and payments are made through Participant 1 who collected the payments and issued the receipts. Being a retired teacher gives Participant 1 credibility and respect from the community members.

The community started the community farming project in 2019. The consumer price index in Peninsular Malaysia in 2019 was 122.4% [63]. On average, Malaysians spend around RM20 to RM30 per meal every day [64]. The main idea behind community farming at Desa Impian is to minimize their spending on food items, especially on basic items that can be consumed such as water spinach, chili, and cucumber. In 2023, the community started the hydroponic agriculture technique with the help of Universiti Kebangsaan Malaysia's Students. Despite there being standard manual instructions given to each community member, the project produced mixed results with some of the community members still grappling with the right technique to produce good yield. Some were able to produce a good yield, but some did not have the same success. Consistencies of quality remain an issue.

They also started an aquaculture project in breeding freshwater fish such as catfish and tilapia in plastic and cement tanks. However, the aquaculture project is not integrated as it is done on a small scale. Again, the idea is to have one fish water tank in each house. One of the community members, Participant 2, a 55-year-old housewife, breeds tilapia and catfish in a cement tank behind her house. She has been selling fresh tilapia and catfish to friends and walk-in customers for almost 20 years with her husband. She took orders through the group WhatsApp application. Often, her competitors undercut her price and she always loses her customers to her competitors who would sell at a lower price. Despite all these challenges, against all odds, she manages to stay in the business. The income from selling the tilapia and catfish was able to supplement her husband's income from working as a security guard to raise all her six children. The youngest is now studying at a local university. Despite the lack of tertiary education, her small-scale aquaculture project was able to uplift their living standards, especially for their children. However, she is still grappling to keep up with the new technology such as e-commerce platforms and social media to sell her catfish and tilapia.

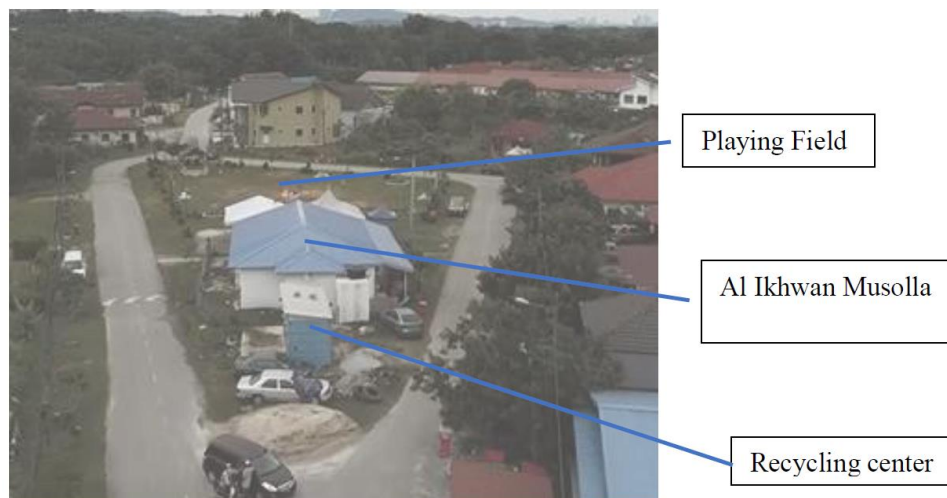


Figure 4. Bird eye view of Desa Impian

The focal point of community activities is at the Al Ikhwan Musolla. The location of Musolla is strategically placed in the center of the communities with houses scattered around the Musolla. All religious activities such as daily prayers, iftar, eid fitri open house, and non-religious activities such as opening ceremonies for any events or other occasions are conducted at the Musolla compound. The area consists of the Musolla, open spaces covered with a permanent canopy that can cater to almost 50 people at once, and a playing field. The whole area can be regarded as "Desa Impian's Square" for all their activities. It is no coincidence that the recycling center was built right behind the Musolla as it is the focal point of all their activities.

The community farming in Desa Impian received a lot of assistance from the local government such as the Shah Alam City Council both in terms of financial and technical support. The community has a good rapport with the local council member in charge of Zone 23, Shah Alam as well as the state assemblyman for Paya Jaras constituents. The good relationship with the authorities gives them access to monetary assistance for many community projects such as the expansion of Musolla as well as media exposure from local newspapers and television. The community also received a grant amounting to RM50,000 from the Development Bank to further develop their community farming activities.

Despite various successes, the idea of agro-tourism and community farming does not seem to get the buy-in from younger generations. The community farming activities involved older generations but failed to get the younger generation to participate. "The younger generations are shying away from doing farming work as they are embarrassed to do this kind of work" quipped Participant 1, when we asked about this issue. Participant 1 had also complained that nobody tends to his farm when he is away, and his wife is not feeling well causing many of the plants to wither and need to be disposed of. This is a cause of concern for the workforce to tend the farm. Participant 1 at 79 years of age, engenders another issue of succession planning. The success of community farming at Desa Impian hangs on the balance of the continuity of community farming beyond the current generation.

5. Finding and discussions

5.1. Linguistic analysis

The word "Desa" literally means "village" in English. The choice of the "Desa" reflects the mentality of the community that perceived itself as a non-urban community. A village has a meaning of a group of buildings and ways of working the land which in this case farming activities. Features of the area and modes of communication in the area should reflect in the history of the area development, and the environment of the modes of communication surrounding the area. Desa Impian uses various signs and objects such as in Figure 5 to communicate sustainable community farming practices messages to the community

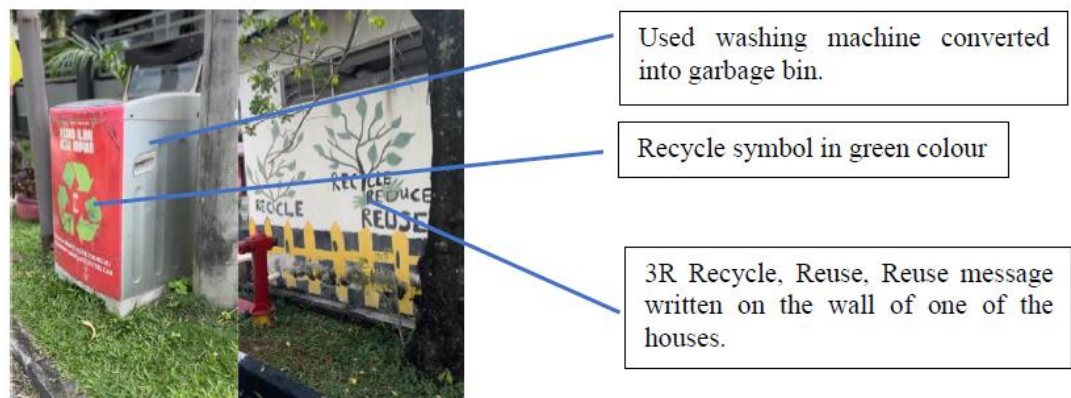
members. Wall paintings, a makeshift library from a used van, and a used washing machine converted into a garbage bin were part of the landscape that can be seen all over Desa Impian. The landscape is not just public signage but rather seen as a set of signs [65]. The success of the linguistic landscape depends on the interaction between the landscape and the community members [66].



“Sampah kebun” or farming waste signage

Figure 5. Community Farming signage at Desa Impian

The usage of recycled materials is sign-makers which signifies a meaning that the community is trying to express through the semiotic modes that they want the people to see and feel. Desa Impian community farming is built on sustainability ideas. The community created signage from recycled materials like old bead frames and tires. The community farming signage is in the Malay language as it is the official language of the community. The recycling messages on the used washing machine in Figure 6 are a combination of both Malay and English language. Although most of the community in Desa Impian speaks the Malay language, the public signage on sustainable practice was written in both languages. Most Malaysians can reasonably speak and understand the English language due to historical reasons being former British protectorate states. The picture of a tree in Figure 7 is much less naturalistic, less detailed, plain, bold, and simple which is a coded image to represent the environment.



Used washing machine converted into garbage bin.

Recycle symbol in green colour

3R Recycle, Reuse, Reuse message written on the wall of one of the houses.

Figure 6. Landscape at Desa Impian

More English words are found at the recycling center behind Al-Ikhwan Musolla. This recycling center as shown in figure 7 was provided by the Shah Alam City Council. The sustainability message was written both in Malay and English language. The Malay words “Jom Kitar Semula” (“let recycle”) were more prominent to influence the community members to recycle. Below the wording, there is a cartoon character depicting a garbage bin. Cartoons are usually considered the easiest way to communicate a message [67]. The usage

of a cartoon in this context is to get the attention of the younger generation by softening and making the sustainability message look more interesting. Visual communication is like an advertisement as it picks out elements that mean something. In using a cartoon character depicting a garbage bin, the community tries to work out what a garbage bin means to the younger generations by prompting the latter to question where they have seen this before and whether is there any simulation of reality. The intention is to remind the younger generation to put the garbage in a bin like what we can see in Figure 7.

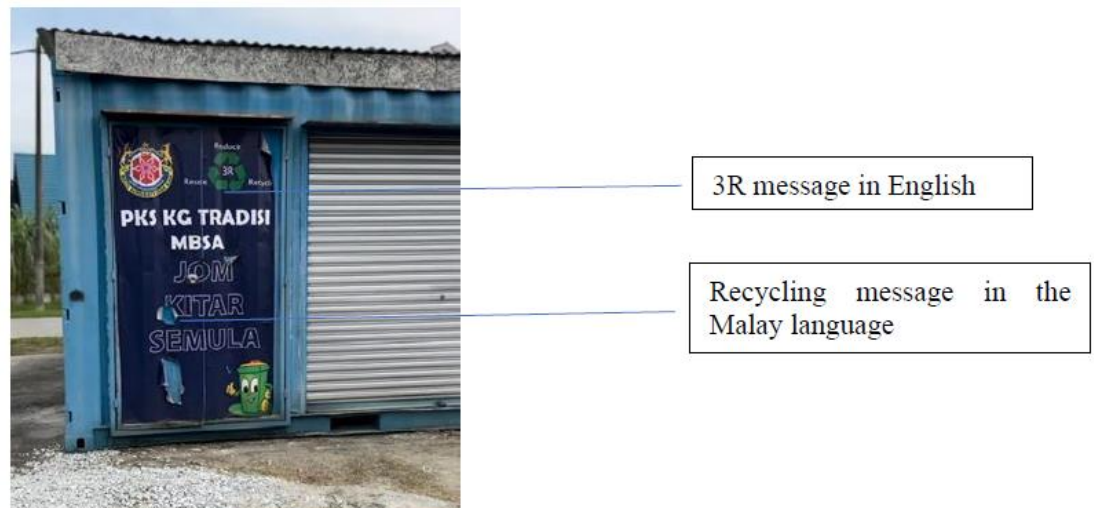


Figure 7. Recycle center at Desa Impian

By contrast, smaller English wording "Reuse", "Reduce", and "Recycle" together with recycle signage in green colour. The smaller English wording is probably an attempt by the local council to reduce the conflict of prioritizing English over the Malay language in multilingual communities such as Desa Impian which are predominantly Malays [68]. These signages in Malay and English languages are aligned with the linguistics and culture of the community who are bilingual. However, English signage can be defined as linguistic codes that community members can easily recall due to its phonological and morphological features [69]. Landscape and 'translanguaging' space provide new ways to understand the linguistic and sensory aspects of the community [70]. The 3R logo is in a triangle shape conveying directionality, introducing a sense of process. The arrow in the logo symbolizes generative power, indicating directionality, realizing a narrative or representation of something is connected or conjoined with something. The 3R logo conveys the message that 'reduce', 'reuse', and 'recycle' are part of a looping connected process which presents the sustainability narratives.

5.2. Social media analysis

The purpose of social media analysis is to interpret the interpretation of community farming at Desa Impian on various Facebook social media accounts. The data from social media was collected from various Facebook postings with the hashtags #DesaImpian that received the most engagements such as Likes, Comments, and Shares from March to May 2023. These Facebook postings convey messages related to community farming such as the hydroponic planting method and the tilapia fish breeding project. Figure 8 shows Facebook content on one of the community farming products at Desa Impian. Participant 2 sells Tilapia and catfish. The concept of community farming is perceived as traditional, unattractive, and not organized which is anthesis to the era of industrial revolution 4.0. It is quite interesting to observe the Facebook postings that try to balance the current perception of farming as a traditional industry and the same time try to portray community farming as an exciting and vibrant solution to food security and a sustainable society.

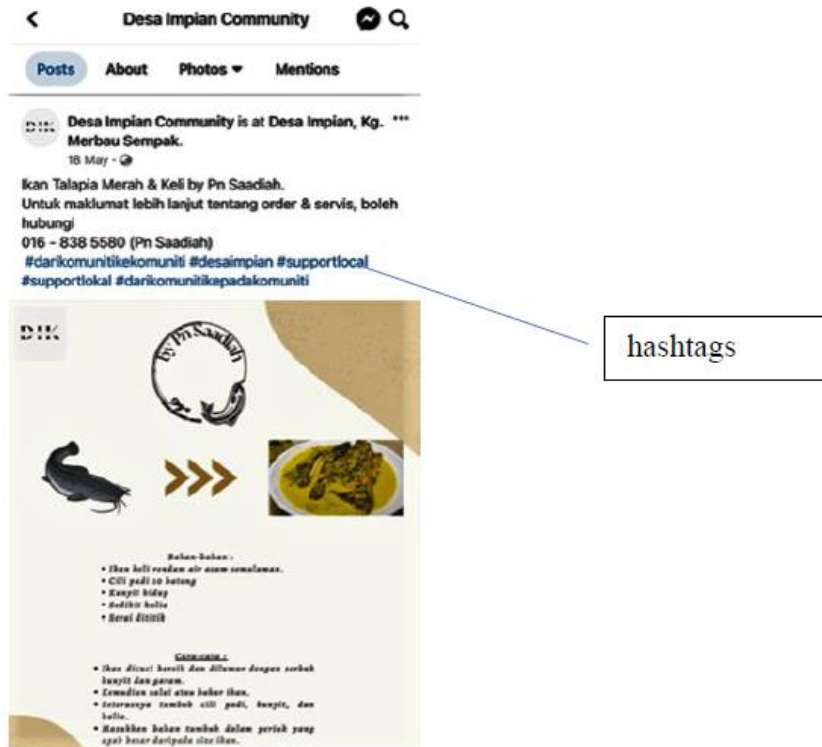


Figure 8. Facebook posting on a recipe of catfish

Social media posting provides a channel to communicate the idea of community farming to the public. Social media is a 'pre-designed template' for exchanging information in a dialogic form [71]. The postings use real-life photos and infographics to convey their messages on community farming. In social media, the visual content must be able to grab the viewer's attention for it to be successful [72]. Visual semiotics in social media maximize the roles of signs in the form of writing which were part of the linguistic messages used to popularize the community farming products branding. In Figure 8, the usage of a fish photo, an arrow, and a fish on a plate provides a combined message of the benefit of community farming to the public. Arrows can represent relations, actions, processes, transformations, and goals. The usage of an arrow in the middle shows a transformation from raw fish to a scrumptious meal. The usage of a multiple bolder arrow in this social media posting suggests greater force in actions and multiplicity of processes.

The combination of image and text will make sense of the image [73]. In Figure 8, the author of the Facebook posting is the narrator, and he is narrating a process. Visual and verbal complement each other. In this Facebook posting, the author is preoccupied with the ingredients to cook a dish. The written texts stop at the process of cooking the dish is conceptual but when the author does not verbally describe how the finished dish should look it causes a disconnected analytical process. By combining both the picture and the words, the author combines the conceptual and the narratives. The picture is the continuation of the process.

Furthermore, the use of the Malay language represents the Malay societal culture of the author. We can see that Facebook postings in Figure 8 are using hashtags such as #supportlocal. The hashtags play on the sentiment of drumming up support for local products. The idea is to support the community's product to enhance the economic standing of the local community. Using hashtags provides a strategic move to start community farming activism. Hashtags deliver messages and are an attempt to encourage the audience to take certain actions proposed by the hashtags or to use the same hashtags in future social media postings [74]. Social media provides a venue to semiotically propagate ideologies such as sustainable living through farming activism [75].

The Facebook posting in Figure 9 uses emoticons which improve expressivity and strengthen positive opinions about the hydroponic project. Emoji is a semiotic sign, designated, and

interpretant that creates syntactic, semantic, and paradigmatic dimensions in social media communication [76]. Emoji is no longer an uncoded reality but is now blended in with alphabetic writing. Phonetic writing was revived by emoji code which allows the readers' eyes to recapture the visual modality. Figure 9, the Facebook content uses a happy emoji to express her happiness. She is happy because, with the hydroponic planting method, she can grow her vegetables. Hence, she can cut down her grocery expenses by buying vegetables from local stores. The emoticons were used to express the user's emotions in her Facebook posting. Emoticons are a combination of emotions and icons in expressing human emotions in social media [77]. Each emoticon used in social media represents a sign that has an object and engenders an interpretant in the mind of anyone who looks at Facebook postings [78]. Due to the nature of virtual communication in social media, people may have eschewed the real intention of the text message. Since emoji use universal emotions that transcend various cultures, the message can be understood by a multicultural audience [79]. Hence, emoji can be used to convey a message of community farming to multiracial ethnicities in Malaysia [80] and to create a social bond with society [81].



Figure 9. Facebook content on the hydroponic program at Desa Impian

5.3. Focus group findings

The focus group involved twelve (12) community members who are actively selling their products to the public. This study is to validate the findings on the community farming culture by incorporating the remarks of focus group participants [62]. During the focus group session, we presented the current marketing status of Desa Impian community farming products. To start the discussion, we laid down the problem of fluctuating demand for the products. The first problem is the price of the product. Participant 2 always loses out to her competitors who sell catfish and tilapia at lower prices. She said that the price offered by her competitors is too low and if she tries to compete by offering a lower price, she cannot cover her operating costs. One of the ideas mooted during the group discussions among the community members is to add value to their existing products.

Excerpt 1: Products

Participant 2: My competitors offer low prices to attract my existing customers

Participant 1: It is good to innovate a new product from the current products. This will add value and create a new market for the community farming product. Participant 2 can create a new product such as a fish fillet or fish ball made from tilapia and catfish.

Participant 2: It may require high capital.

Participant 1: We can use the grant from the Development Bank. We also need to look at the packaging. For example, products like fresh chili can be put in a package based on a certain weight and sold at RM10 to simplify the selling process.

Participant 3: I usually give a sample of my Beriyani rice in a small cup to my customers.

The discussions then center around the issue of the necessity of adding value to the existing products. Participant 1 seems hesitant about product development as it requires more capital. Selling catfish and tilapia is just to supplement her income. She did not have a long list of clientele and most of her existing clients are individuals.

Excerpt 2: List of existing clients

Researcher: How many are your existing customers?

Participant 2: Ten

Researcher: From ten customers how many are retailers?

Participant 2: Only one. The rest are just buying for their consumption. The most that they will buy is around 3kg every week.

Researcher: Did you record all the purchases?

Participant 2: No record. As long as I receive the payments.

Excerpt 2 revolves around Participant's 2 conundra in expanding her catfish and tilapia business. We observe that she is passionate about her small business despite lacking capital. Participant 2 is a good example of entrepreneurial culture in Desa Impian whereby she has been in this line of business for twenty years. However, as they get older, their business can sustain but remain at a small scale. The operations of her business depend on her and her husband. She is 55 and her husband is 65 years of age and they do not have much energy to expand their business on their own. Some of the participants in the focus group discussions want to increase the market for their products. Participant 3 and Participant 4 for example believe that their product lacks marketing exposure.

Excerpt 3: Discussions on increasing market share

Participant 3: My objective is to promote our product to a wider market

Participant 4: Currently, I only sell direct to certain institutions like boarding schools. However, I want to start selling to individual buyers.

Participant 1: Our community farming products are not for sale. We will share the produce with the community members.

Participants 3 and 4 pose strong personalities and have clear visions for their business. Participant 3 is currently selling "Nasi Briyani Pengantin" in a packet of 500 grams. A packet of 500 grams can serve up to four people. Four people are a typical number of household members in a house. Participant 4 is selling bedding equipment to boarding schools and other government institutions. However, participant 4 wants to expand his customer base to individual buyers because he cannot rely on his current customer base alone. About marketing, we show the current social media postings and the performance of those social media postings to the participants.

Excerpt 4 Social media postings

Researcher: (showing one of the social media postings) This Facebook posting had 38 views. Comments and 2 people share the posting.

Participant 3: Do you know the age group of the audience?

Researcher: You can target the age group when you advertise the postings on Facebook. Do you have anyone managing your Facebook account?

Participant 3: Yes... but I do not have a specific person doing this.

Participant 7: I can give more videos as content for social media postings. The videos can show the product process. I can share the videos with the rest of the community members.

Participant 1: We always update the community activities on social media.

Participant 7 in excerpt 4 is willing to share his work on social media with the rest of the Desa Impian community. He has a teenage daughter who is well-versed in social media, and this gives him the advantage in promoting his product on social media. Participant 7 reflects Desa Impian strong culture of cooperation. They share their experience and expertise with the rest of the community members and with external parties who want to learn from them.

6. Industrial implications

Understanding the symbols and signs in semiotic research of community farming can enhance agro-tourism communication strategies [82]. The focus group discussions and the social media analysis in this research reveal that Desa Impian community had problems with branding and community identity. The result of this research was able to identify the symbols and signs that resonate with potential tourists that lead to the creation of more exciting and culturally relevant agro-tourism narratives. Agro-tourism products that are more culturally related to the tourists are more inclusive and appealing to the tourists [83]. Understanding exciting and compelling narratives can emotionally connect the tourist to experience urban farming [84]. The result of this semiotic research can serve as a guide to develop compelling narratives and interpretive marketing materials for agro-tourism destinations. The analysis of semiotic elements in marketing materials in this research such as social media postings, newspaper reports, as well as onsite signage revealed elements that can be used for more effective communication strategies. Agro-tourism destinations can use this knowledge to attract broader audiences and have targeted marketing campaigns. Apart from marketing campaigns, semiotics insights in this research can be used to design informative and engaging educational materials to increase the tourists' understanding of community farming.

7. Conclusion

This research shows that the community in Desa Impian has a high motivation to participate in community farming. The community members understand the rationale behind community farming. They understood that community farming could increase their income and make them less dependent on external food supplies. However, the nature of community farming being small scale means it is not generating enough income to attract full-time labour to work at the farm. The community members themselves view community farming as a side income'. The lack of economic attraction makes it less attractive to the younger generation to be involved in community farming activities.

Financial assistance from the local authorities, assemblymen, and financial institutions helps to keep the community farming running. Community farming needs to sustain itself by generating income. However, as explained by Participant 1, the idea of community farming at Desa Impian is not to generate income but rather to provide some activities for the community members. In the long run, the idea of running the farm through grants from the authorities is not a sustainable model. One of the ideas is to collaborate with local universities to make community farming at Desa Impian a research hub and agro-tourism center.

The presence of recycling bins and recycling centers reflects the signs of sustainable practice within the community. Due to a lack of funds, the community had to be creative in recycling materials that could be used for community farming. The community practices a livelihood system that encompasses sustainable practices in community engagement, education, waste management, and responsible farming practices. The use of hydroponics, for example, enables the cultivation of plants using nutrient-rich water and maximizing land use. Everything from recycling garbage bins, graffiti, mini library, and hydroponic farming techniques are amplifying and reinforcing the idea of sustainable livelihood within the Desa Impian community.

Amid the economic potential, for the Desa Impian community, the community farm means more than a source of food or income. It is a place to promote social interactions and a sense of belonging among the community members. The farm gives the community members a sense of purpose, accomplishment, and pride in producing something on their own. From

this research, we are of the view that we need to take a different approach to promoting community farming to the community members. Instead of promoting community farming from an economic and food security perspective, the local authorities may promote community farming and agro-tourism from a communal activities point of view. Community farming and agro-tourism can be promoted as community activities that involve every member of the community. Connecting and engaging every member of the community increases the buy-in from the younger generations to be involved in community farming.

Author Contributions

MS: Conceptualisation, Formal analysis; **CM:** Supervision; and **ASAM:** Data Curation.

Conflicts of interest

There are no conflicts to declare.

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