

The Intention of Community Garden Participation: A Case Study in Community Garden of Taman Tasik Ilmu, Kota Seriemas

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Abstract

Malaysia's population is projected to reach approximately 41.5 million by 2040, marking a significant increase from its current population. This projection is based on various factors, including birth rates, death rates, and migration trends. With this rapid population increase, the urbanization rate is expected to rise, leading to concerns about food security. Ensuring food security becomes a pressing issue, as the country must produce or import enough food to feed its population. This is where community garden programs and other local food production initiatives can play a significant role in supplementing food supply and promoting sustainable agriculture. The United Nations' Sustainable Development Goals (SDGs) introduced in 2015, specifically Goal No. 2 (Zero Hunger), emphasize the need to address food security issues. One of Malaysia's strategies to achieve Goal No. 2 is through the implementation of community garden programs. However, the success of such programs largely depends on the intention and volunteerism of community participants. This study aims to explore the intention behind community garden participation at Taman Tasik Ilmu. Data was collected using an online questionnaire with 40 participants. The questionnaire gathered information on demographics, gardening knowledge, reasons for participation, and opinions on facilities and garden management. Descriptive analysis was employed to analyze the collected data. The results indicated that the primary motivation for participants to join the community garden program was to fill their free time. This finding suggests that aligning the objectives of community garden programs with the intentions of participants may enhance their success and sustainability.

Keywords

Community garden, Food security, Sustainable Agriculture

Submission: 29 May 2024; **Acceptance:** 1 September 2024



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Introduction

The world's population is projected to reach 9.9 billion by 2050, with Malaysia's population anticipated to rise to approximately 41.5 million by 2040 (Ho, 2016). This population growth, coupled with rapid urbanization, poses significant challenges to food security in Malaysia. Although the country's food supply is currently adequate, the Food and Agriculture Organization of the United Nations (FAO) has warned that access to food sources may become problematic in the coming years, particularly during disasters and in response to the demand for high-quality, nutritious food (Calicioglu et al., 2019; FAO, 2017). The primary concern is not merely a question of supply but rather one of ensuring that the urban populace can access these resources when needed, especially in times of crisis, as exemplified by the 2010 floods in Kedah and Perlis, which led to food shortages in Kuala Lumpur (The Star, 2010). To address these concerns, the Malaysian government has promoted community gardening as a potential solution for enhancing local food security. Community gardens are part of urban agriculture initiatives where urban land is used collectively to grow food for self-consumption, with the added potential of income generation. The Malaysian Government encourages participation in these programs under initiatives like the Green Earth Campaign, launched by the Ministry of Agriculture and Food Industry (MAFI) in 2005, and supported at the local level by the Ministry of Housing and Local Government (KPKT) through Local Agenda 21 (LA21). However, the success of community gardens heavily depends on active community involvement and volunteerism, which is often influenced by participants' intentions and alignment with program objectives (Firth, Maye, & Pearson, 2011; Flachs, 2010). This study aims to explore the motivations and intentions driving community participation in community garden programs. Understanding these factors will offer valuable insights to local authorities and community garden organizers, helping to align program objectives with participant expectations and enhancing the sustainability of these initiatives. Additionally, the findings can guide government organizations in providing better support to ensure the effective management of community gardens, contributing to Malaysia's broader food security goals.

Methodology

A case study: Community Garden at Taman Tasik Ilmu, Kota Seriemas

The community garden located at Taman Tasik Ilmu, Kota Seriemas was chosen for the case study in which to explore the participants intention to joining the community garden program. The total area of this community garden is 160.79 meters. This garden was launched on 6 Mei 2018 at Taman Tasik Ilmu, Kota seriemas by PNB Development Sdn. Berhad in collaboration with Nilai Municipal Council. Resident representatives of the communities in Kota Seriemas planting local herbs during the LA21 Kembara Ilmu Programme. However, after 2 years 6 months of the program being launched, the community garden does not seem to be successful (no crops have been planted anymore and seem neglected).

Research Instrumentation

The study included 34 items to measure participants' intention to be involved in the Community Garden Programmed. The final questionnaire was made up of five sections. The first section related mainly to demographic information. Data such as age, gender, occupation, household income and education level were collected. The second section consisted of questions on participant knowledge about gardening. The third section consisted of questions on the purpose to involve in community garden program. Next sections about the community garden facilities and the last section consisted of questions on community garden management. This questionnaire is constructed in Bahasa Melayu as the national language and most of the population is Malay race. Respondents were required to complete a questionnaire that had 5-point Likert scale questions where required them to indicate the extent to which they agree or disagree.

Data collection

An important component of this research is data collection and analysis. In this study, an online survey was conducted through Telegram and WhatsApp from Mei to August 2021. A random sampling procedure was used to select respondents residing in Kota Seriemas, including those living nearby the community garden. Participation was open to these residents regardless of their direct involvement in the garden, resulting in a total of 40 respondents for this study. Data was obtained through online questionnaires using google forms. Closed-ended structured questionnaire is the best method to collect the data for this research.

Data analysis

All the quantitative data from online questionnaires were coded into Statistical Package for Social Science (SPSS) version 22 for analysis. Descriptive analysis was completed analyse to describe the sample in term of demographic profiles and participant' intention to be involved in the Community Garden Programmed.

Results and Discussion

Socio-demographic profile

Table 1 showed the summarized socio-demographic analysis of community garden participation. The results show there are more than two-thirds of participants (77.5%) are female and a few are male (22.5%) participates in community garden programs. Ngome & Foeken, (2012) found that women have been shown to predominate in urban agriculture since they are responsible for household subsistence. The data show that over 70% of community garden participants are between the ages of 31 and 50, while only a small proportion (approximately 7 participants) are aged between 20 and 30. This trend suggests that the low involvement of younger people in community gardens may not only be due to negative perceptions of agriculture, as noted by Man (2008), but could also be influenced

by lifestyle factors that do not align with the commitment required for community gardening. Additionally, the demographic composition of Kota Seriemas, which may not be particularly attractive to younger residents, could contribute to this pattern. Research has highlighted that young people's low engagement in agriculture often relates to perceptions of the sector as less appealing or incompatible with modern urban lifestyles, limiting their interest in initiatives like community gardens (Cattivelli, 2023). Most participants have a tertiary education (92.5%), of which most of them have at least a bachelor's degree (82.5%). Most of the participants had an income level above RM4,850 (82.5%) and only 17.5% had an income of less than RM4,849.

Table 1. Summary of community garden (CG) participations' background

Characteristic	Frequency (n)	Percentage (%)
Age (years)		
20-30	7	17.5
31-40	19	47.5
41-50	11	27.5
51 or older	3	7.5
Gender		
Male	9	22.5
Female	31	77.5
Education level		
SPM	3	7.5
Diploma	4	10.0
Bachelor's degree	25	62.5
Master	6	15.0
Phd	2	5.0
Income		
Less than RM4,849	7	17.5
More than RM4,850	33	82.5
Frequency go to CG		
< 1 time a week	21	52.5
2-3 times a week	17	42.5
3-4 times a week	2	5
>5 times a week	0	0

Community garden participants' intention to participate in the community garden program.

Figure 1 shows the mean values for nine participants' intentions to engage in a community gardening program. Mean values ranged from 2.325 to 3.625. Participate in community garden programs to fill free time is the highest mean values (3.625) followed by interest (3.575), health (3.450), gardening with children (3.450), social interaction (3.350), food security (3.100), suggestions from friends (2.875), increase income (2.525) and lastly incentive (2.325). This shows that most of the residents of Kota Seriemas intend to become participants in the community garden program because they want to fill their free time and interest in gardening activities. The incentives are not the main factor for them to get involved in community garden programs because most participants of Kota Seriemas

have an income level of more than RM4,850 and can afford to buy their own food. Butterfield (2016) said that high-income communities prefer social goals to participate in community programs, in contrast to low-income communities that focus on affordable access to fresh food.

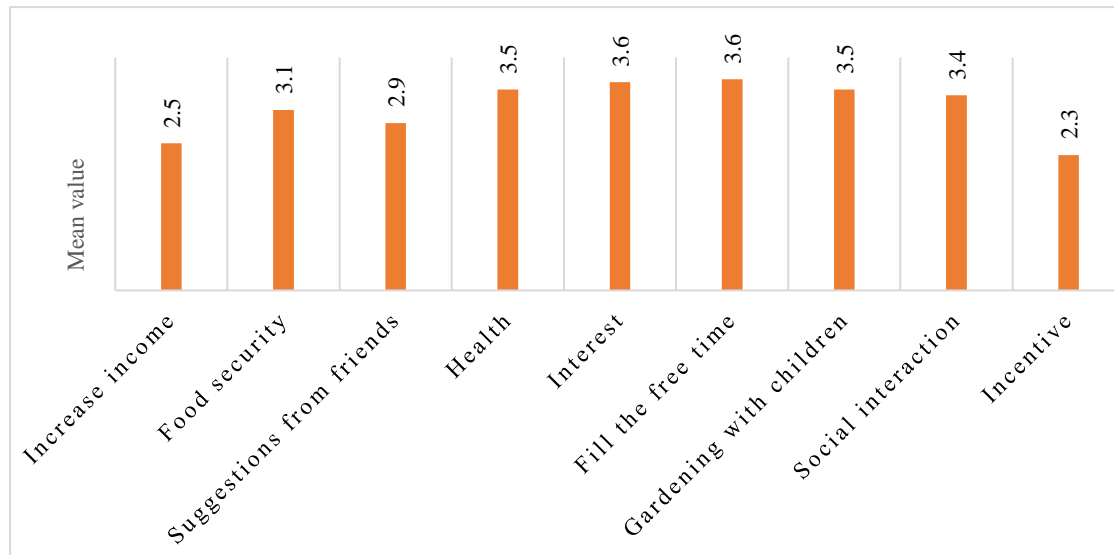


Figure 1. Mean number of purposes of involvement in community garden

Based on the results and discussion above, it can be concluded that the intention of the participants to participate in the community garden program plays an important role in the implementation of a community garden program. The real intention for the participants to participate in the community garden program was to fill their free time. On the other hand, an incentive was the less important factor that contributed to their involvement in the program. As far as the study hypotheses are considered whether the community participation to join the community garden is influenced by lifestyle rather than related to food insecurity stated by the Government. The hypothesis was partially confirmed that the intention of the participants to participate in the community garden program is to fill their free time and some other external factors. This contrasts with the government's goal of ensuring food security, as many participants belong to the M40 (middle-income) and T20 (high-income) groups, who generally have the financial means to secure their own food supplies independently. Therefore, the government needs to plan and implement this community garden program in accordance with all levels of society because the participants are the key to determining the success of a community garden.

Conclusion

In conclusion, implementation of a community garden program based on their real intention and provide good management will keep them as participants and ensure that the community garden program can survive. The sample size of this study is one of its limitations, as it only included participants from the Community Gardens of Taman Tasik Ilmu. Further studies from the other participants' backgrounds should be conducted and understanding the real factors that influence community engagement from different angles. In this way, the information obtained can be used as a reference to the local community in this country.

Acknowledgements

I also would like to express my deep appreciation to all those who have directly and indirectly guided me in this research. To my children Muhamad Aqil Razin, Nur Imani Safiyya and Nur Sumayyah thank you for your understanding and time. My expression of gratitude does not suffice for all your endless love, encouragement, and belief in me. Special thanks to Assoc. Prof. LAr. Dr. Suhardi Maulan for your knowledge, motivation, and exemplary guidance. Overall, this research project would not have been possible without the support and contributions of so many people. I am deeply grateful to all of those who helped to make this research a reality, and I hope that the findings will make a meaningful contribution to the field.

References

- Butterfield, K. L. C. (2016). *The Effects of Racial and Class Neighborhood Composition on Community Garden Outcomes*.
- Calicioglu, O., Flammini, A., Bracco, S., Bellù, L., & Sims, R. (2019). The future challenges of food and agriculture: An integrated analysis of trends and solutions. *Sustainability (Switzerland)*, 11(1). <https://doi.org/10.3390/su11010222>
- Cattivelli, V. (2023). Review and analysis of the motivations associated with urban gardening in the pandemic period. *Sustainability*, 15(3), 2116. <https://doi.org/10.3390/su15032116>
- Flachs, A. (2010). Food for thought: The social impact of community gardens in the greater Cleveland area. *Electronic Green Journal*, 1(30). <https://doi.org/10.5070/G313012885>
- FAO. (2017). The future of food and agriculture: Trends and Challenges. In *The future of food and agriculture: trends and challenges* (Vol. 4, Issue 4).
- Firth, C., Maye, D., & Pearson, D. (2011). Developing “community” in community gardens. *Local Environment*, 16(6), 555–568. <https://doi.org/10.1080/13549839.2011.586025>
- Ho, M. K. (2016). Department of Statistics Malaysia Press Release Population Projection (Revised), Malaysia, 2010-2040. *The Office of Chief Statistician Malaysia, Department of Statistics, Malaysia, November*, Email : mkho@stats.gov.my.
- Man, N, 2008. Young Perception towards Agriculture and Needs on Agriculture Education. *Journal of Malaysian Youth Development*: 99-114
- Ngome, I., & Foeken, D. (2012). “My garden is a great help”: Gender and urban gardening in Buea, Cameroon. *GeoJournal*, 77(1), 103–118. <https://doi.org/10.1007/s10708-010-9389-z>
- The Star. (6 November 2010). “Do not ignore the plight of flood victims.” *The Star*. <https://web.archive.org/web/20110622071325/http://thestar.com.my/news/story.asp?file=%2F2010%2F11%2F6%2Fnation%2F20101106140013&sec=nation>