

# Community Perception and Participation of Urban Farming Activities

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**ABSTRACT**---*Dynamic of urban farming brings a significance which contributed by the fast growth of urban population. In some developed countries like Japan and Singapore, the approaches of urban farming inside of the buildings of residential, offices or workplaces, commercial and industrial lots at the city center were already begin to pop-up and embedded. Farming knowledge can form an effective and good intervention for city dwellers to move uplift to the better education and stand right at the higher degree of social cohesion. The aim of the paper is to investigate the community perception and later about their participation, which will support the embedment process of farming activities in urban areas. The paper employed quantitative method in eliciting the collected data. The Statistical Package Solutions for Social Science (SPSS) Version 24.0 software is used to analyses the data. The findings show that the urban dwellers have a favorable perspective concerning urban farming approach. Economical aspects in living expenses proved a great significant different in generating desires on growing food for self-consumption and saving the cost in food expenditure. The paper also indicates that beneficial practices to grow valuable urban farming activities in Malaysia as the support from each community are required to make excellent promotion for everyone to realize and concern on the importance of growing foods in fast growing urban cities especially in terms of environmental, social, economic and healthy lifestyles.*

**Index Terms:** urban farming, urban population, farming knowledge, perception, participation

## I. INTRODUCTION

Farming knowledge can form an effective and good intervention for city dwellers to move uplift to the better education and stand right at the higher degree of social cohesion. Creative thinking and good inspiration are formed in the way of responding to the farming system in the sustainable city movement such as recycling of wastes, provision of recreational services and building green landscape design in which connected to the need of urban communities. In addition, several studies show that urban farming strengthens the ties between communities [1],[2], and [3]. Farming itself can build brotherhood, creating a sense of community and diverse cultures among the growers and farmers. These practices contribute to positive social well-being and increase community pride.

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Schultz [4] shared that by getting closer to the natural environment, growing plants is one of the effective way, helps to relive and overcome stressful and emotional situations. The satisfaction and relaxation mood is achieved by devoting ourselves towards the wild and nature landscapes. From the revelation, plants of the Kuran containing nutrition valuable to the human body and are highlight with the medicinal properties of herbs and healthy dietary. Garlic, grapes, pomegranate, herbs, dates, gingers, olives, onions, cucumbers and figs are among of the plants mentioned in the Kuran. Thus, human being should not depend on the supplements and various kinds of medicine if we eat the nutritious foods by breeding the nutrients from fruits and vegetables out of our own farm, so that we can keep close to the good quality and healthy life. The aim of the paper is to investigate the community perception and participation to support the embedment process of farming activities in urban areas. The objectives are:

- To study the community perception and understanding of urban farming activities; and
- To identify the factors that influences the community participation towards urban farming activities.

## II. COMMUNITY PERCEPTION AND PARTICIPATION

Perception is defines as the human ability to acknowledge something through physical senses by seeing, hearing, tasting and feeling during certain situations. Meanwhile, community participation is defines as to actively involved or taken part in the community development issues and strategies through the physical actions [5]. On the other hand, Beatley [6] indicates that the practices of urban farming activity are linked with the community commitment and their awareness to establish the community programs held in the neighborhood green spaces.

Kauffman & Bailkey [7] emphasis that the approach can provide abundant enhancement to the surrounding areas as the catalysts for sustainable approach that includes;

- reducing the amount of abandoned, unproductive urban vacant lots under the local authorities' management;
- improving the public image of community neighborhoods;
- expanding the green spaces for public users;
- contributing in food security, healthy diet and ability to provide source of income from the saving of food expenditures;

- e) creating new program and activities boost by the creativity of producing food-based employment; and
- f) supporting local and regional markets with fresh and nutritious food supplies.

Recently, there are several initiatives introduced by local authorities of Malaysia to encourage the urban farming activities. One of them is through the community garden project on the idle land around the commercial buildings, homes and public places which involved several locations in the high-density city and town areas in Puchong, Putrajaya and Shah Alam. Apart of growth their own vegetables garden, several surveys have indicated that community involvement in the urban farming activities can help strengthen the ties between communities [1],[2],[3] As well as create a sense of partnerships and enhance community cohesion among the growers and farmers.

### III. RESEARCH METHOD

The paper employed a quantitative method in eliciting the data and information regarding the community perception and participation of urban farming activities. The primary data collection was by using questionnaire survey. The survey method was analyzed using the SPSS.

#### Questionnaire

Surveys provide solutions to answer the aim and objectives of the paper which was conducted to get the feedback of the community regarding the importance of urban farming activities and their potential factors in implementing farming activities in all cities in Malaysia. Surveys are usually the example of the field research constructed as an experiment which is concerned with describing, recording, analyzing and interpreting the existed and non-existed conditions based on the variables of the opinions, processes, evident or trends of effects and also the influences from the past events [8]. Robitaille [9] find that survey questionnaire can support the possibility in gathering individuals' perceptions of the built environment; in this context the research on urban farming activities. Consequently, the survey form was distributed face-to-face by hand and through multimedia to the respondents that are convenient to the urban farming activities in the residential areas.

### IV. ANALYSIS AND FINDINGS

In total 200 respondents answered the questionnaire survey. They were from the residential areas of Kuala Lumpur, Putrajaya and Shah Alam. The analysis is divided into three sections, i) community perception and understanding, and ii) the factors that influence the community participation towards urban farming activities.

#### a) Community Perception and Understanding towards Urban Farming Activities

This section is crucial in order to study the community perception and understanding about the urban farming and its implementation to the communities. The responses and feedback from the communities is evaluated based on their understanding in implementing farming activities in their residential areas.

It is identified that the respondents are familiar with five main terms which are urban farming, kitchen garden, urban agriculture, *kebun bandar* and *taman/ landskap dapur*. However, the terms urban farming is the most familiar terms understand by the respondents (46.5%).

#### i) Understanding Towards Urban Farming Activities

In terms of farming activities, there are four main activities such as planting vegetables, fruits, flowers and growing animal husbandry (Table 1).

**Table 1. Distribution of urban farming activities**

Urban farming Activities	Frequency	Percentage (%)	
Vegetables	Yes	163	81.5
	No	37	18.5
	<b>Total</b>	<b>200</b>	<b>100</b>
Fruits	Yes	115	57.5
	No	85	42.5
	<b>Total</b>	<b>200</b>	<b>100</b>
Flowers	Yes	112	56
	No	88	44
	<b>Total</b>	<b>200</b>	<b>100</b>
Animal Husbandry	Yes	43	21.5
	No	157	78.5
	<b>Total</b>	<b>200</b>	<b>100</b>

The above results reveal that majority of the respondents give positive feedback and agreed that urban farming is about planting vegetables (81.5%), fruits (57.5%) and flowers (56%). On the side, majority of the respondents (78.5%) objected that animal husbandry as a part of urban farming activities. Thus, community regarded better understanding on growing plants are more significant than growing animals where apparently bigger spaces are needed to grow animals as a livestock within the urban areas.

#### ii) Purposes of Urban Farming Activities

With regards to the contribution of urban farming activities, a Chi-Square test is performed to dwell the relationship between respondents from two different marital status with the purposes to initiate the urban farming activities within their surroundings (Table 2).



**Table 2. Purposes of initiating urban farming**

Purposes of Initiating Urban Farming		Marital Status		Total		Sig.
		Single	Married	Frequency	Percent(%)	
Hobby in leisure time	Yes	62	71	133	66.5	.024
	No	43	24	67	33.5	
	<b>Total</b>	<b>105</b>	<b>95</b>	<b>200</b>	<b>100</b>	
Exercising	Yes	44	49	93	46.5	.202
	No	61	46	107	53.5	
	<b>Total</b>	<b>105</b>	<b>95</b>	<b>200</b>	<b>100</b>	
Self-therapy, relaxation & calmness	Yes	80	59	139	69.5	.033
	No	25	36	61	30.5	
	<b>Total</b>	<b>105</b>	<b>95</b>	<b>200</b>	<b>100</b>	
Self- consumption	Yes	48	68	116	58	.000
	No	57	27	84	42	
	<b>Total</b>	<b>105</b>	<b>95</b>	<b>200</b>	<b>100</b>	
Family Activities	Yes	56	53	109	54.5	.777
	No	49	42	91	45.5	
	<b>Total</b>	<b>105</b>	<b>95</b>	<b>200</b>	<b>100</b>	
Spend Time with friends	Yes	19	32	51	25.5	.015
	No	86	63	149	74.5	
	<b>Total</b>	<b>105</b>	<b>95</b>	<b>200</b>	<b>100</b>	
Cost Saving	Yes	54	68	122	61	.004
	No	51	27	78	39	
	<b>Total</b>	<b>105</b>	<b>95</b>	<b>200</b>	<b>100</b>	

The results clearly revealed that there is significant relationship between marital status with the purposes of initiating urban farming ( $p < 0.05$ ). There are 139 respondents (69.5%) agreed that urban farming activities can bring self-therapy, relaxation and calmness. This indicates that the urban farming activities will support self-calmness of the farmers. There are quite balance score between single and married respondents where 66.5% agreed that the idea of urban farming is one of their hobbies in leisure time. The result also reveals that farming activities reduce their cost and expenditure to buy vegetables, fruits and flowers, where 61% agreed that farming activities is cost-saving.

*b) Factors of Community Participation towards Urban Farming Activities*

It is due to the fact that community participation significantly influences the urban farming activities which are useful and positively associated with the sustainable urban environment.

i) Factors Influence the Community Participation in Urban Farming

This section discovers the factors that influence the community participation towards urban farming activities. The one-way ANOVA is used to express the relationship between the responses made upon the factors of urban farming activities (Table 3).

**Table 3. Relationship between Gender and the factors of urban farming activities**

Descriptions	Gender	Mean	Sig. (p)
Enhance the quality urban environment	Male	4.22	.125
	Female	4.40	
	<b>Total (n=200)</b>	<b>4.35</b>	
Increase urban green areas and open spaces	Male	4.34	.163
	Female	4.49	
	<b>Total (n=200)</b>	<b>4.45</b>	



Enrich the visual quality of the city	Male	4.21	.050
	Female	4.44	
	<b>Total (n=200)</b>	<b>4.37</b>	
Assist with the food security crisis	Male	3.97	.120
	Female	4.18	
	<b>Total (n=200)</b>	<b>4.12</b>	
Encourage social interaction	Male	4.14	.728
	Female	4.09	
	<b>Total (n=200)</b>	<b>4.11</b>	
Foster the quality of healthy lifestyles	Male	4.29	.339
	Female	4.40	
	<b>Total (n=200)</b>	<b>4.37</b>	
Improve the economy level of the country	Male	3.91	.143
	Female	4.11	
	<b>Total (n=200)</b>	<b>4.06</b>	
Support low-income residents on food expenditure	Male	4.22	.309
	Female	4.34	
	<b>Total (n=200)</b>	<b>4.31</b>	
Can be practiced in many urban places	Male	4.14	.326
	Female	4.58	
	<b>Total (n=200)</b>	<b>4.46</b>	

As indicated above, the means results obtained are more than 3 (mean>3) which indicates that over two-third of the respondents agreed to all factors the influence their participation of urban farming activities. The above table pointed out the highest mean values where most of the respondents (M=4.46) claimed that urban farming can be practiced in many urban places while they are also agreed to the fact that urban green areas and open spaces can be increased through the urban farming activities. This finding is supported by Heather [10] which mentioned that urban farming activities can bring unique opportunities to add more green spaces into a neighborhood through utilizing

vacant or idle land. Active community participation indicates the control of the local residents in the decision-making as according to their demands for environmental justice.

#### ii) Types of Preferable Urban Farming

The importance of plants selection that are often been planted are correlate to the planting method applied as according to the preferable location chosen for urban farming. Table 4 presents the usual plants selection, preferable planting method as well as preferable location chosen by the respondents.

**Table 4. Distribution of respondents based on the influences of preferable plants selection, planting methods and location for farming activities.**

Preferable choices		Frequency(n=200)	Percentage (%)
Usual Plants Selection	Vegetables	107	71.3
	Fruit trees	63	42
	Ornamental plants	81	54
	Herb plants	65	43.3
Planting Methods	Creeper	28	18.7
	Hanging pot	42	28
	Vertical wall	15	10
	Using pot/vase	126	84
	On the ground	105	70

Planting Location	Roadside	31	20.7
	Small corner lot/area	45	30
	Front yard	90	60
	Back yard	70	46.7
	Indoor	22	14.7
	Balcony/Windows sill	21	14
	Rooftop	2	1.3

The results show that most of the respondents (71.3%) planted vegetables as their main farming activities. This is followed by ornamental plants (54%), herbs plants (43.3%) and fruit trees (42%). The results concur with Hogson, Campbell & Bailkey [11] mentioning that since centuries people are growing vegetables, herbs and fruits trees as their sources of food and medicine to overcome hunger and illness during food shortage. In terms planting methods, the result indicates that planting in the pot is the highest percentage where 84% of the respondents preferred that method, followed by 70% of the respondents planted their plants on the ground. This shows that planting in the pot is popular due to the limited of open spaces for some residential areas and it is portable and easy to handle within small compound. However, those with access to open spaces will enjoy their farming on the ground.

For the planting location, the result indicates that more than half of the respondents preferred front yard (60%), followed by backyard (46.7%), small corner lot/area (30%), roadside (20.7%), indoor (14.7%), balcony/window sill (14%) and rooftop (1.3%). These were due to the space organization, space limitation, suitability location, access and maintenance aspects.

## V. DISCUSSION AND CONCLUSION

The study learned that community has a favorable perspective concerning urban farming activities. The finding signifies the awareness level concerning urban farming approaches. Economical aspects and living expenses proved a great significant different in generating desires on growing food for self-consumption and saving the cost in food expenditure. The finding indicates that beneficial practices to grow valuable urban farming activities in Malaysia as the support from each community are required to make excellent promotion for everyone to realize and concern on the importance of growing vegetables especially in terms of environmental, social, economic and healthy lifestyles.

Regarding to the factors that influence the application of urban farming from communities' point of views, it will not create much issues other than the need for the local authorities' support and continuous motivation for the urban farming activities.

The paper also finds that the practicability of space utilization promotes passive recreation while creating social relationship among the communities. Eventually, this approach can strengthen social bonding with others in urban areas. On the other side, community perceptions towards urban farming can be useful in collaborating successful planning principles to form a strong relationship and

peaceful co-existence between man and natural environment with the appreciation of natural sources can be emphasized gradually.

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