



COMMUNITY PERCEPTION AND PARTICIPATION
OF URBAN FARMING TOWARDS
SUSTAINABILITY URBAN ENVIRONMENT

BY

NORUL HAFIZAH BINTI YUSOFF

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Kulliyyah of Architecture and Environmental Design
International Islamic University
Malaysia

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ABSTRACT

This research sought to identify the importance of community perception and their participation in the urban farming activities to be implemented within cities environment. In addition, this research proved that conducting urban farming is beneficial to achieve sustainable urban environment for the enhancement of community function and healthy lifestyles that contribute in greening the urban landscape. This research describes the role of the community to achieve the environmental, economic and social sustainability through community awareness, engagement and supports in food supplies, nutrition and spaces utilization. Thus, the objective of this research is to investigate the community perceptions about the urban farming and its advantages, to evaluate the community participation and involvement in the urban farming activities as well as to determine the potential factor influences and challenges of urban farming activities to overcome the obstacles in the urban settings. Evaluation on the understanding, benefits and potential of urban farming activities within limited urban spaces and how it improves the quality of life are discussed. It is necessary to apply and practice in our daily lives for the consumption of food security, human safety, and health. In conducting data collection, this research employed mix-methods of qualitative and quantitative research approach. In total, 200 respondents answered the questionnaire surveys and 15 interviews are interviewed among urban communities within Kuala Lumpur, Selangor and Putrajaya residential areas. The research finds that in terms of perceptions, the finding shows that the familiarity, purposes and significance of urban farming activities signifies the awareness and understanding level from the urban community. It is reflected from the limitation of knowledge that have a significant contribution from deliberating respondents' background. The purpose of initiating urban farming give valuable insight the need of urban farming. The study finds out that time and space limitation being the major influences into the farming implementation within urban residential areas in Malaysia. Although several respondents agreed that they currently have already implementing urban farming activities around their residential areas, it has been proved from the study that workers, pensioners and housewives actively utilized several practical areas for farming but not students due to commitment constraints as well as lack of interest and motivation. This reason is supported by the interviewee opinions that addressed the issues of time management in their daily lives. From the urban sustainability findings, the research indicates that beneficial practices to grow a valuable complementary farming system which is yet to be recognized 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. Therefore, the role of community is very crucial in the implementation of urban farming activities within urbanization areas due to the demands for green development is increases. Based on this theoretical framework, it hopes that this research will become useful knowledge in promoting a stronger community interdependence to create the sustainable urban environment.

خلاصة البحث

سعى هذا البحث إلى تحديد أهمية إدراك المجتمع ومشاركته في أنشطة الزراعة الحضرية التي سيتم تنفيذها في بيئة المدن. بالإضافة إلى ذلك، لقد أثبت هذا البحث أن إجراء الزراعة الحضرية مفيد لتحقيق بيئة حضرية مستدامة من أجل تعزيز وظيفة المجتمع وأنماط الحياة الصحية التي تساهم في تحضير المشهد الحضري. يصف هذا البحث دور المجتمع لتحقيق الاستدامة البيئية والاقتصادية والاجتماعية من خلال الوعي المجتمعي والمشاركة والدعم في الإمدادات الغذائية والتغذية واستخدام المساحات. وبالتالي، فإن الهدف من هذا البحث هو التحقق من تصورات المجتمع حول الزراعة الحضرية ومزاياها، وتقييم مشاركة المجتمع المحلي ومشاركته في أنشطة الزراعة الحضرية، وكذلك تحديد التأثيرات المحتملة للعوامل والتحديات التي تواجه أنشطة الزراعة الحضرية للتغلب على العقبات في المناطق الحضرية. تتم مناقشة التقييم على فهم ومنافع وإمكانات أنشطة الزراعة الحضرية في المساحات الحضرية المحدودة وكيفية تحسين نوعية الحياة. من الضروري التطبيق والممارسة في حياتنا اليومية لاستهلاك الأمن الغذائي، والسلامة البشرية، والصحة. في إجراء جمع البيانات، استخدم هذا البحث أساليب مختلفة لمقارنة البحث النوعي والكمي. في المجموع، أجاب 200 من المستجيبين على استبيانات الاستبيان و 15 مقابلة أجريت مع المجتمعات الحضرية في المناطق السكنية في كوالا لمبور، سيلانجور وبوتراجايا. ويجد البحث أنه من حيث التصورات، تُظهر النتائج أن معرفة أنشطة الزراعة الحضرية وأهميتها وأهميتها تشير إلى مستوى الوعي والفهم من المجتمع الحضري. وبنعكس ذلك على محدودية المعرفة التي لها مساهمة كبيرة من خلفية المستجوبين المتداولة. إن الغرض من بدء الزراعة الحضرية يعطي رؤية قيمة للحاجة إلى الزراعة الحضرية. وتبين الدراسة أن تحديد الزمان والمكان هما التأثيران الرئيسيان في تنفيذ الزراعة داخل المناطق السكنية الحضرية في ماليزيا. على الرغم من أن العديد من المجيبين وافقوا على أنهم يقومون حاليًا بتنفيذ أنشطة الزراعة الحضرية حول مناطقهم السكنية، فقد ثبت من خلال الدراسة أن العمال والمتقاعدين وربات البيوت يستخدمون بنشاط العديد من المجالات العملية للزراعة ولكن ليس الطلاب بسبب قيود الالتزام وكذلك عدم وجود الاهتمام والتحفيز. ويدعم هذا السبب آراء المستجيبين التي تناولت قضايا إدارة الوقت في حياتهم اليومية. من نتائج الاستدامة الحضرية، يشير البحث إلى أن الممارسات المفيدة لتنمية نظام زراعي تكميلي قيم والتي لم يتم الاعتراف بها في ماليزيا حيث أن الدعم من كل مجتمع مطلوب لجعل الترقية الممتازة للجميع تدرك وتهتم بأهمية النمو الأطعمة في المدن الحضرية سريعة النمو، لا سيما من حيث أنماط الحياة البيئية والاجتماعية والاقتصادية وصحية. ولذلك، فإن دور المجتمع أمر بالغ الأهمية في تنفيذ أنشطة الزراعة الحضرية في مناطق التحضر بسبب الطلب على التنمية الخضراء هو الزيادات. وبناءً على هذا الإطار النظري، تأمل أن يصبح هذا البحث معرفة مفيدة في تعزيز ترابط مجتمعي أقوى لخلق بيئة حضرية مستدامة.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science (Built Environment).

.....
Mohd Ramzi Bin Mohd Hussain
Supervisor

.....
Izawati Binti Tukiman
Co-Supervisor

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Science (Built Environment).

.....
Rashidi Bin Othman
Internal Examiner

.....
Mohd Hisyam Bin Rasidi
External Examiner

This thesis was submitted to the Department of Landscape Architecture and is accepted as a fulfilment of the requirement for the degree of Master of Science (Built Environment).

.....
Jasasikin Bin Ab Sani
Head, Department of Landscape
Architecture

This thesis was submitted to the Kulliyah of Architecture and Environmental Design. and is accepted as a fulfilment of the requirement for the degree of Master of Science (Built Environment).

.....
Abdul Razak Bin Sopian
Dean, Kulliyah of Architecture
and Environmental Design

DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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TABLE OF CONTENTS

Abstract	ii
Abstract in Arabic	iii
Approval Page.....	iv
Declaration	v
Copyright Page.....	vi
Acknowledgements	vii
List of Tables	xi
List of Figures	xiii

CHAPTER ONE: INTRODUCTION	1
1.1 Introduction.....	1
1.2 Research Background	3
1.3 Problem Statement.....	4
1.4 Research Questions.....	5
1.5 Research Aim.....	6
1.6 Research Objectives.....	6
1.7 Research Scope	6
1.8 Significance of the Thesis.....	7
1.9 Structure of the Thesis	8
1.10 Summary.....	12

CHAPTER TWO: URBAN FARMING ACTIVITIES TOWARDS SUSTAINABILITY URBAN ENVIRONMENT	13
2.1 Introduction.....	13
2.2 What Is Urban Farming?	13
2.3 Role of Urban Community In Urban Farming Activities	14
2.4 Growth of Urban Farming Activities From Islamic Perspective	17
2.5 Functions of Urban Farming In The Urban Environment	19
2.6 Types of Urban Farming.....	21
2.7 Current Growth of Urban Farming Activities In High-Density Urban Cities	27
2.7.1 Interior of Buildings	29
2.7.2 Exterior of Buildings.....	30
2.8 Potential Benefits of Urban Farming Activities	31
2.8.1 Environmental Stewardship	31
2.8.2 Economic Reliance.....	32
2.8.3 Community Improvement, Human Comfort and Well Being.....	33
2.8.4 Revolution of Health and Nutrition.....	34
2.9 Community Perception and Participation Towards Urban Farming	35
2.9.1 Definition of Perception and Participation.....	35
2.9.2 Advantages of Community Involvement in Urban Farming Activities.....	36
2.9.3 Challenges and Barriers of The Urban Farming Activities in Malaysia.....	37
2.9.3.1 Different Community Contribution	37

2.9.3.2 Government Enforcement: Home, Schools and Public Spaces	38
2.10 The Importance of Community Participation In Urban Farming Activities	39
2.11 Summary.....	39
CHAPTER THREE: RESEARCH METHODOLOGY	40
3.1 Introduction.....	40
3.2 Research Methodology	40
3.3 Research Design	43
3.4 Research Population	45
3.5 Research Sample.....	46
3.5.1 Sampling Frame and Design	46
3.5.2 Sampling Selection	46
3.6 Data Collection	47
3.6.1 Site Observation	48
3.6.2 Questionnaire Survey	50
3.6.3 Semi-Structured Interview	54
3.7 Triangulation Design	56
3.8 Method Of Analysis.....	57
3.8.1 Descriptive Analysis	59
3.8.2 Content Analysis	59
3.9 Summary.....	60
CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION.....	62
4.1 Introduction.....	62
4.2 Questionnaire Survey.....	63
4.2.1 Demographic Information of Respondents	63
4.2.2 Community Perception and Understanding	67
4.2.2.1 Responses Towards Related Terms	67
4.2.2.2 General Awareness on Urban Farming.....	70
4.2.3 Community Participation And Involvement In Urban Farming Activities.....	74
4.2.3.1 Level of Community Participation and Involvement	77
4.2.3.2 Types of Preferable Urban Farming	82
4.2.3.3 Consumption of Urban Farming.....	88
4.2.3.4 Companion in Urban Farming Activities	89
4.2.3.5 Relationship of Community Awareness and Urban Farming Approach	90
4.2.3.6 Authority Supports in Urban Farming Activities	95
4.2.4 Factors Influence in Urban Farming Activities.....	96
4.2.4.1 Environmental Stewardship.....	97
4.2.4.2 Economic Reliance	98
4.2.4.3 Community Improvement.....	99
4.2.4.4 Revolution of Health and Nutrition	100
4.3 Semi-Structured Interview.....	101
4.3.1 Level of Understanding and Awareness on Urban Farming.....	102
4.3.2 Overview of Community Participation and Involvement	104

4.3.3 Influence of Urban Farming Towards Sustainable Urban Environment	106
4.3.4 Current Trend and Innovation of Urban Farming Approach	109
4.4 Summary	112
CHAPTER FIVE: CONCLUSION	113
5.1 Introduction.....	113
5.2 Interpretation of Findings	113
5.2.1 The Community Perception and Understanding Towards Urban Farming.....	113
5.2.2 The Influence of Community Participation in Urban Farming Activities.....	114
5.2.3 The Contribution of Urban Farming Activities Towards Sustainable Urban Environment	115
5.3 Conclusion	116
REFERENCES.....	118
APPENDIX A	122
LIST OF CONFERENCE AND PUBLICATION	131

LIST OF TABLES

Table 2.1	Correlation of Community Participation with Urban Farming Activities and Sustainability	15
Table 2.2	The Typology of Urban Farming Activities	23
Table 3.1	The Research Approach Derived from Previous Researchers Regarding Urban Farming Studies	40
Table 3.2	Summary of Research Methods and Analysis to Correspond with Research Questions and Objectives	42
Table 3.3	List of Items and Questions Asked in the Questionnaire Survey	52
Table 3.4	Research Organization	61
Table 4.1	Demographic Backgrounds of the Respondents	64
Table 4.2	Distribution of Respondents Based on Their Understanding Towards Urban Farming	70
Table 4.3	Distribution of Respondents Based on the Purposes of Urban Farming	71
Table 4.4	Relationship Between Gender with the Significance of Urban Farming Activities	73
Table 4.5	Distribution of Respondents Based on the Participation in Urban Farming	74
Table 4.6	Distribution of Respondents Based On Time Spent in Urban Farming	78
Table 4.7	Cross Tabulation of Regular Time Consumption and Occupation	79
Table 4.8	Distribution of Respondents Based on the Influences of Preferable Plants Selection, Plantation Methods and Location for Urban Farming	82
Table 4.9	Cross Tabulation of Planting Location and Type of Living Quarters	85
Table 4.10	Distribution of Respondents Based on the Consumption Level of Urban Farming	88
Table 4.11	Distribution of the Companionship in The Urban Farming Activities	89

Table 4.12	Distribution of Communication Services Used for Urban Farming	90
Table 4.13	Level of Agreement Among Respondents on The Disease Control Awareness in The Urban Farming Activities	91
Table 4.14	Distribution of Respondents Based on the Types of Fertilizers Used in The Urban Farming Activities	92
Table 4.15	Relation between Appearance of Harmful Insects with The Types of Fertilizers Used in The Urban Farming Activities	93
Table 4.16	The Application of Agricultural Innovation and Technology Used in The Urban Farming Activities	93
Table 4.17	Authority Supports in Urban Farming Activities	95
Table 4.18	Distribution of Respondents Based on the Type of Supports Received by Authorities	96
Table 4.19	Distribution of Respondents Based on the Level of Agreement with The Potential Factors in Environmental Stewardship Aspect	97
Table 4.20	Distribution of Respondents Based on the Level of Agreement with The Potential Factors in Economic Reliance Aspect	98
Table 4.21	Distribution of Respondents Based on the Level of Agreement with The Potential Factors in Community Improvement Aspect	99
Table 4.22	Distribution of Respondents Based on the Level of Agreement with The Potential Factors in Revolution of Health and Nutrition Aspect	100

LIST OF FIGURES

Figure 1.1	The Flow of the Research Structure	8
Figure 1.2	The Framework of The Research Study	11
Figure 2.1	Timeline of Urban Farming Movement in Malaysia That Improves the New Set of Principles and Approaches Relevant to Any Community	19
Figure 2.2	The Land Uses Suitable For Urban Farming Activities	22
Figure 2.3	The Locations That Usually Used By Community For Conducting Urban Farming Activities	22
Figure 2.4 (i)	Private Garden Behind A Private Residence (Sepang, Selangor)	24
Figure 2.4 (ii)	Community Garden at the Open Space of A Residential Area (Shah Alam, Selangor)	24
Figure 2.4 (iii)	Institutional Garden at the Student Residential Area in IIUM (Gombak, Selangor)	24
Figure 2.4 (iv)	Edible Landscape of Potted Strawberry in Front of a Restaurant (Cameron Highland)	24
Figure 2.4 (v)	Guerilla Garden of Idle Land Under TNB High Tension Cables Area (Shah Alam, Selangor)	24
Figure 2.4 (vi)	Beekeeping at Stingless Bees Garden (Sepang, Selangor)	24
Figure 2.4 (vii)	Market Garden On Private Property for Food Commercial (Cameron Highland)	25
Figure 2.4 (viii)	Urban Farm of Food Production Especially Vegetables (Putrajaya)	25
Figure 2.5	Subsistence Economy of Community Farming at Shah Alam, Selangor	26
Figure 2.6	Market-oriented Agriculture Production in the Urban of Malaysia	26
Figure 2.7	Some Attractions of Urban Farming in Agricultural Park	27
Figure 2.8	Illustration of Preferable Planting Placement In Limited Urban Spaces	28

Figure 2.9 Interior Urban Farm Located At Pasona HQ Office Building in Tokyo, Japan	29
Figure 2.10 Organic Vegetable Landscape Implemented At The Rooftop of Hotel Bunga Raya, Johor	30
Figure 3.1 Research Framework	44
Figure 3.2 Triangulation Model	57
Figure 4.1 Corresponding of Survey Analysis with The Research Objectives	62
Figure 4.2 The Familiarity of Related Terms Among 200 Respondents	68
Figure 4.3 The Sources of Knowing the Related Terms Among 200 Respondents	69
Figure 4.4 Information Regarding Urban Farming Is Often Appeared in The Daily Newspapers and Internet Sources	69
Figure 4.5 The Significance of Urban Farming Activities Among 200 Respondents	72
Figure 4.6 Farming Activities Applied at The Small Corner Lot in The Front of House at A Residential Area in Persiaran Taman Melati, Kuala Lumpur	75
Figure 4.7 Row of Lemongrass (<i>Cymbopogon citratus</i>) Planted at the Roadside of Kuala Lumpur Middle Ring Road 2 (MRR2) highway	75
Figure 4.8 One of The Community Farm Located in Front of The Residential Apartment at Precinct 9, Putrajaya	76
Figure 4.9 A Greenhouse Built to Grow Rock Melons Through Fertigation Nearby Road Junction at Precinct 9, Putrajaya	76
Figure 4.10 Community Farm Had Been Carried Out on Idle Land Under Tenaga Nasional Bhd (TNB) High Tension Cables at Section 8, Shah Alam	77
Figure 4.11 Community Farm Section 20, Shah Alam Providing Jogging and Cycling Trails for Their Visitors	77
Figure 4.12 Some of Pensioners and Housewives Found Gardening and Socializing at The Community Gardens at Section 17 & 20, Shah Alam	80
Figure 4.13 A Few of Residents Had A Short Visit to A Community Farm at Section 20, Shah Alam During A Rainy Morning to Pick Vegetables for Their Lunch	81

Figure 4.14 Community Farming at Precinct 9, Putrajaya Empty Without Residents During A Hot Day in The Afternoon	81
Figure 4.15 <i>Lactuca sativa</i> (Lettuces) and <i>Solanum lycopersicum</i> (tomatoes) Were Among the Vegetables Spotted Growing at The Residential Unit	83
Figure 4.16 Several Vegetables and Herbs Such as <i>Murraya koenigii</i> (Curry Tree) and <i>Ocimum basilicum</i> (Basil) Were Identified Planted in The Pots in Front of a Housing Unit at Kuala Lumpur	84
Figure 4.17 <i>Pandanus ammaryllifolius</i> (Pandanus) and <i>Manihot esculenta</i> (Cassava) Were Spotted Planted at The Roadside of a Residential Area	87
Figure 4.18 <i>Cymbopogon citratus</i> (Lemongrass) Were Planted Nearby the Parking Lots of a Flat Residential Area in Kuala Lumpur	87
Figure 4.19 Fruit Trees Such as <i>Saccharum officinarum</i> (Sugarcane) and <i>Hylocereus undatus</i> (Dragon Fruit) Were Spotted Planted in Front of a Terrace House	87
Figure 4.20 Price Comparison Between Sales of Vegetables from Community Garden with The Markets Was Advertised at A Community Garden	89
Figure 4.21 Drip Irrigation System Was Applied in Growing <i>Capsicum annuum</i> (chili peppers) at a Resident's House in Selangor	94
Figure 4.22 Verticulture Farm Was Promoted at One of Public Event Held in Selangor	95
Figure 4.23 Rabbit and Chicken Were Raised in the Coops at a Community Garden in Selangor	102
Figure 4.23 <i>Capsicum annuum</i> (Chili Peppers) Were Harvested and Divided Equally to be Shared with Other Communities	108
Figure 5.1 The Benefits of Urban Farming Activities to The Urban Community	116
Figure 5.2 The Influence of Community Participation in Urban Farming Activities towards Sustainable Urban Environments	117

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

Since ancient, the acquisition of resources made from plants such as food supplies, textiles, and shelters have been a part of survival in human society's lifestyles as it is practiced by hunters, farmers and growers throughout the world. Referring to Spahic Omer (2005), the essential of natural resources have recognized from the first establishment of Islamic city of Medina when Prophet Muhammad (Peace be upon him) prior to the need of water, plants and animals as the basic elements in the expansion of urban settlement. In addition, Ibn Khaldun classified an ideal city as the one that follow several traits and features inside the city planning which each of the city must have a tight security, excellent safety and physical health, existence of sufficient amenities, sustainability, accessibility, cleanliness, fulfilling demands for infrastructures and housing, promoting and maintaining the required agricultural and industrial activities, have peaceful coexistence with natural environment, creating strong communities with social integration and good maintenance of political control or prestige (Spahic Omer, 2011). For this reason, urban farming is proved as an activity that plays a part in the rise of sedentary human civilization that exist since the ancient times (Guissepi, 2007).

Aggressive development challenges the human mind to trigger innovative ideas in creating sustainable development in fast growing cities. In fact, urban farming is one of sustainable agriculture approach that is widely practiced by communities around the rapid urbanization areas, cities and town spaces which involve the skills, expertise and innovation in farming and food processing. Suryandari (2012) reported that urban farming practices had been introduced in order to reduce and overcome the

environmental, economic and social problems other than to meet people needs and demands like nutritious food and beverages.

With regards to the implementation of agriculture, one theory which prompted research on its significant to the agricultural system is Sir Ebenezer Howard's theory on The Garden City Movement (Phillips, 1977). In retrospect, the garden city movement method emphasized on the combination of town and country to offer alternative working class in crowded and unhealthy cities. It was intended to create cities that are economically independent and also countryside's preservation. Garden city concept initiated by Sir Ebenezer Howard during the year of 1898 has proved that urban farming concept is not a new idea. In fact, the connection between foods and the city has already evolved since ancient times.

The literature revealed that there is widespread realization that the effort and determination for restoration and preservation acts on the natural ecosystem is essential in improving quality of life. According to the Vancouver Urban Farming Guidebook, Lanarc-Golder (2013) mentioned that urban farming trend has emerged rapidly with a growing demand for local food and community resiliency that involving the skills, expertise and innovation in the farming activities and food processing. It is necessary so as to properly being applied and practiced in our daily lives for the consumption of food security, human safety and health. There are many researches such as Giedych (2013) and Smith (2005) claimed that farming activity is beneficial to the society especially urban community due to world nowadays are well-aware to the fact of food shortage crisis which is inadequate for the whole population.

1.2 RESEARCH BACKGROUND

Despite the impressive urban development and the evolution of new sustainability movement, the demands for healthy environment and lifestyle are what people have been taken into accounts nowadays (Bellows, Brown and Smit, 2003). Depletion of resources, species extinction, toxic waste pollution, drought stress and many other environmental factors were caused by this uncontrolled urbanization setting, which troubled the society and affecting their awareness to get close to the natural settings.

In the drastic globalization era, the need for fresh and secure foods with healthy nutrition is the most important thing to be concerned about. Previous research has reported that urban poverty and food crisis issues have challenge the city authorities around the world because they cannot cope with the massive growth of human population (UPA, 2008). In fact, the issue of poverty and unemployment among the community can be overcome by engaging in farming activity and small business. Hence, community activities will be beneficial and relationship between the communities can be strengthened.

In response to food security, each of the country must have a proper plan in order to provide plenty of food supplies whether it is for self-consumption, household needs or marketing processes and productions (Veenhuizen, 2006). For this reason, urban farming really plays an important role to generate the alternative ways in accessing foods which also helps in controlling the economic costs on the food expenditures in the middle of urbanization area. Recently, there has been little interest from communities in growing successful urban farm or garden in several locations in the city areas in Malaysia such as at the outdoor of commercial buildings, homes and public places as long as they are planted using good soils and receives enough sunlight for better growing rate (Ng, 2017; Oh, 2014).

Therefore, this research attempts to seek the community perception and participation towards the importance of the application of urban farming activities which has been applied within urban open spaces and limited areas so that we can also acknowledge its significance to the sustainability of urban environment and social lives that bring economic benefits for people other than improving the quality of healthy city environment. By promoting urban farming activities in the urban settings which requires knowledge and deep understanding in the learning outcomes, a healthy green urban environment shall be formed. This research is conducted within Kuala Lumpur, Putrajaya and Selangor as the selected case studies area for urban farming.

1.3 PROBLEM STATEMENT

Destructive acts from uncontrolled development and human activities bring a serious impact to the ecosystems such as greenhouse effects and urban heat island (EPA, 2013). These aggressive development challenges the human mind to trigger innovative ideas in creating sustainable development in fast growing cities. Therefore, various modifications have been worked out on the landscape around the world.

Watson (2014) stated that urban farm is about raising foods including plants and animals in the city ground either at allotment land or non-occupied space. Thus, farming can be practiced in both interior and exterior of the buildings. Kristiansen and Merfield (2006) indicated that not every location is suitable for the community to grow sustainable or economical organic farming because of limited and inadequate spaces. There are some limitation and general requirements have been made up to have a success organic agriculture due to environmental, social and economic performance.

Although urban farming movement is not a new green approach, less awareness and participation from public in urban area of Malaysia is part of the problems (Rabiul

Islam and Chamhuri Siwar, 2012; Kaur and Mizan Hitam, 2010). Community reaction and understanding towards urban farming approach in Malaysia needs to be encouraged due to the several limitation factors of time, job commitments, spaces and physical supports from higher bodies. On top of that, people often undervalue the urban farming's function due to the fact it is mostly planted just as edible landscape whereas it can also provide the enhancement of environmental, social and health quality. Without realizing the potential of urban farming, there are some people that have the initiative to plant with the limitation knowledge of urban farming.

In many countries including Malaysia, emphasizing on the vital of restoring and preserving the natural ecosystem to improve human health is what encourage urban folks to grow foods by farming on their own. It is necessary so as to properly be applied and practiced in our daily life for the consumption of food security, human safety and health. After all, the implementation of urban farming in Malaysia has potential to address the sustainability in the urban environment.

1.4 RESEARCH QUESTIONS

According to the problem statements of the research, specific questions to be generated to guide the research are outlined as follows:

- i) What are the perceptions of urban community about urban farming?
- ii) How can the community participate and involve in the urban farming activities?
- iii) What are the factors and strategies in applying urban farming activities?

1.5 RESEARCH AIM

The aim of this research is to identify the community perception and participation on the approach of urban farming activities towards sustainable urban environment which has been applied within the urbanization settings of Kuala Lumpur, Putrajaya and Selangor. This study is also done to explore the importance of urban farming based on the suitability and practicality to sustain the urban farming movement within the fast-growing area in the city from communities' perceptions.

1.6 RESEARCH OBJECTIVES

The main objectives for this research are;

- 1) To investigate the **community perceptions** about the urban farming and its advantages to the **urban community**
- 2) To evaluate the **public participation and involvement** in the **urban farming activities**
- 3) To determine the potential **factor influences** and challenges of urban farming activities to **overcome the obstacles** in the urban environment

1.7 RESEARCH SCOPE

This study is focusing on community perception and participation of urban farming as well as about how to educate and encourage community involvement in urban farming activities in Malaysian urban context.

The scope was outlined by conducting case studies areas where focused around Kuala Lumpur, Putrajaya and Selangor as the demand for proper urban farming approach is growing. The scope was limited to various types of residential/ housing/

property of development industry areas such as terraced houses, semi-detached houses, bungalow houses as well as courtyard apartment spaces.

Furthermore, by approaching the urban communities, expertise and professionals on the agricultural study as the targeted respondents, various opinions can be collected with all of its associated locations that have the potential for the urban farming activities to be applied. Thus, the result of this study will provide useful preliminary conclusions and guidance on the optimum potential factors and challenges in urban farming approach for community resiliency development in order to meet communities' requirements and demands.

1.8 SIGNIFICANCE OF THE THESIS

From conducting this research, the expected outcomes which will be produced from the analyses of investigations will reveal that majority of targeted respondents will acknowledge and aware about the urban farming approach. Eventually, the targeted public communities will agree to the fact that urban farming approach is effective to enhance the social lives and bring economic benefits for people as well as can improve the quality of healthy city environment. In addition, this study will also prove that conducting urban farming is beneficial in terms of the consumption of food security, human safety and health.

Because urban farming approach has encounter the lack of contribution in term of public support due to the absence of awareness among communities in creating a greener environment although massive farming systems are available, the local authorities, designers and planners should pay more attention to this issue to signify the additional initiatives to increase the public attraction to participate in the implementation of urban farming for the sustainability of urban environment.

1.9 STRUCTURE OF THE THESIS

The flow of organization chart is illustrated in Figure 1.1, structuring how the research will be performed and related from the earlier stage to the end. This research is divided into six chapters.

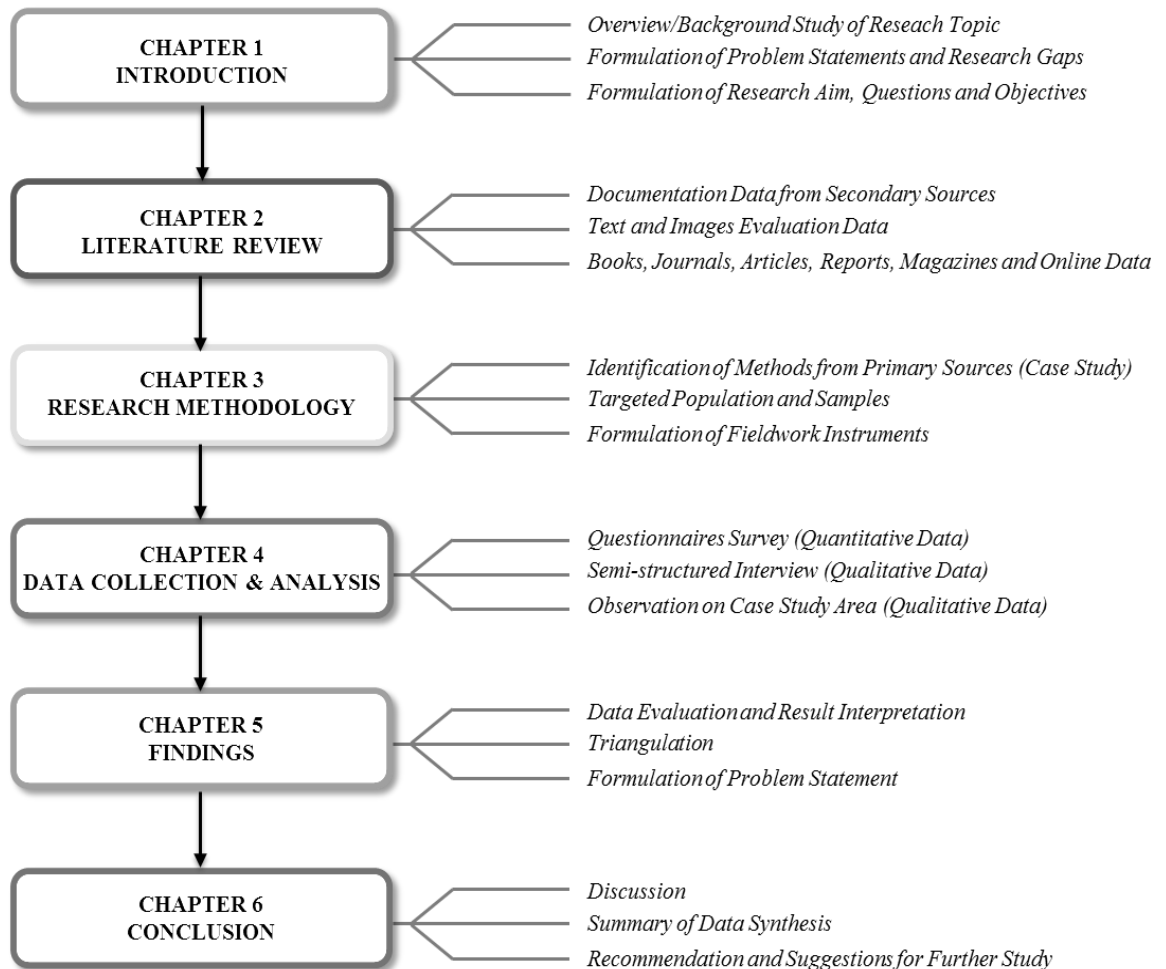


Figure 1.1: The Flow of the Research Structure

Chapter One deals with the general idea of the study that included background of research topic, problem statements and research gaps, research aims, questions, objectives, scopes, limitation and structure of overall study.

Chapter Two covers on the literature review of relevant studies and documentation data that provide deeper understanding on the urban farming to the community in the urban context. This chapter is essential due to the theoretical aspects of innovative agricultural design in the residential and housing compounds.

Eventually, the specific collected information from the written reports of books, journals, articles, magazines and online data in advance of the study will show the comparison and similar analysis for better understanding on the theory of research regarding urban farming needs.

Chapter Three outlines the research methodology as the framework for the collection of data. Since the research employed mix methods of quantitative and qualitative research approach in collecting the data and information which are relevant for this study on the urban farming activities, four research approaches were selected for the primary and secondary data collections. The details on these methods will be further discussed in Chapter 3.

Chapter Four presents the quantitative and qualitative research approach. Quantitative part of the research findings obtained from the questionnaire survey showed responses and feedback from the respondents that were distributed to the randomly selected community in order to discover their understandings and perceptions. The results were further analysed and keyed-in inside the computer by using Statistical Package Solutions for Social Science (SPSS) Version 24.0 software.

Two types of analyses involved in this finding are frequency and cross-tabulation data. The gathered results were tabulated and shown in the form of statistical and descriptive analyses. Qualitative findings were gathered from the semi-structured interviews that conducted with several expertise and professional key person on innovative agricultural design approach in urban environment.