



**Analysis Urban Farming Management System in
Petaling Jaya City Council**

by

**Muhammad Hisyamuddin Bin Shahrin
1433430164**

A report submitted in partial fulfillment of the requirements for the degree
of
Master of Business Administration (Engineering Management)

**Faculty of Applied and Human Sciences
UNIVERSITI MALAYSIA PERLIS
2022**

Analysis Urban Farming Management System in Petaling Jaya City Council

@This item is protected by original copyright

**FACULTY OF APPLIED AND HUMAN SCIENCES
UNIVERSITI MALAYSIA PERLIS**

**PERAKUAN PROJEK KAJIAN PERNIAGAAN
(Certification of Business Research Project)**

Kami bertandatangan memperakui bahawa
(We, the undersigned, certify that)

MUHAMMAD HISYAMUDDIN BIN SHAHRIN

Calon untuk ijazah
(Candidate for the degree of)

MASTER IN BUSINESS ADMINISTRATION (EM)

Telah mengemukakan Projek Kajian Perniagaan yang bertajuk:
(Has presented his/her Business Research Project of the following title):

ANALYSIS URBAN FARMING MANAGEMENT SYSTEM IN PETALING JAYA CITY COUNCIL

Seperti yang tercatat di muka surat tajuk dan kulit kajian
(As it appears on the title page and front cover of the research)

Bahawa kajian tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada **8 Mac 2022**.

*(That the said research is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on **8th March 2022**.)*

Pengerusi Viva <i>(Chairman for Viva)</i>	Dr Ku Amir Bin Ku Daud	Tandatangan <i>(Signature)</i>	<i>Ku Amir</i>
Pemeriksa Dalam 1 <i>(Internal Examiner 1)</i>	Dr Noorazeela Binti Zainol Abidin	Tandatangan <i>(Signature)</i>	<i>noorazeela</i>
Pemeriksa Dalam 2 <i>(Internal Examiner 2)</i>	Dr Hirwan Jasbir Bin Jaafar	Tandatangan <i>(Signature)</i>	<i>Hirwan</i>
Nama Penyelia <i>(Name of Supervisor)</i>	Ts Dr Mohd Zukime Bin Mat Junoh	Tandatangan <i>(Signature)</i>	<i>zukime</i>

UNIVERSITI MALAYSIA PERLIS

DECLARATION OF THESIS

Author's Full Name : MUHAMMAD HISYAMUDDIN BIN SHAHRIN
Title : ANALYSIS URBAN FARMING MANAGEMENT SYSTEM IN PETALING JAYA CITY COUNCIL
Date of Birth : 21 MEI 1991
Academic Session : 2021/2022

I hereby declare that this thesis becomes the property of Universiti Malaysia Perlis (UniMAP) and to be placed at the library of UniMAP. This thesis is classified as:

- CONFIDENTIAL** (Contains confidential information under the Official Secret Act 1997)*
- RESTRICTED** (Contains restricted information as specified by the organization where research was done)*
- OPEN ACCESS** I agree that my thesis to be published as online open access (Full Text)

I, the author, give permission to reproduce this thesis in whole or in part for the purpose of research or academic exchange only (except during the period of _____ years, if so requested above)

Certified by:



SIGNATURE



SIGNATURE OF SUPERVISOR

910521015631

(NEW IC NO. /PASSPORT NO.)

Dr Mohd Zukime Hj Mat Junoh

NAME OF SUPERVISOR

Date: 03 March 2022

Date: 03 March 2022

NOTES : * If the thesis is CONFIDENTIAL or RESTRICTED, please attach with the letter from the organization with the period and reasons for confidentiality or restriction. Replace thesis with dissertation (MSc by Mixed Mode) or with report (coursework)

ACKNOWLEDGMENT

Firstly, all the praises and thanks to our Mighty Allah for granting me His blessings to complete my master degree program in Business Innovation and Technopreneuership education. I would like to express gratitude to my supervisor, Dr Mohd Zukime Hj Mat Junoh, who has been a wonderful and tremendous source of guidance and inspiration throughout my master's degree journey. He has supported me endlessly in obtaining this degree and has developed me into what I am today. His advice, critiques, views, and contributions have given me insights to conduct this research study.

Many thanks to wife for allowing me to be distracted at home during attending lecture and visiting UNIMAP campus for a meeting with my supervisor. They are a source of enjoyment and happiness for me. Many thanks also to my parents, siblings, relatives, neighbors, friends, and colleagues for praying for me to complete my master's degree. Their assistance is precious to me and kept me grounded

In addition, I convey my highest appreciation to all community, government agencies and research consultants who participated in this study. Their willingness's to participate in this study was a significant assistance to me. Last but not least, I thank the Faculty of Applied and Human Sciences, Universiti Malaysia Perlis for giving me opportunities to pursue my education here.

@This item is protected by original copyright

TABLE OF CONTENTS

	PAGE
DECLARATION OF THESIS	i
ACKNOWLEDGMENT	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
ABSTRAK	ix
ABSTRACT	x
CHAPTER 1 : INTRODUCTION	1
1.1 Introduction	1
1.2 Problem statement	4
1.3 Research objectives	9
1.4 Research question	10
1.5 Scope of the study	10
1.6 Significance of study	11
1.7 Delimitation of study	11
CHAPTER 2 : LITERATURE REVIEW	12
2.1 Introduction	12
2.2 Urban agriculture	12
2.3 Urban agriculture in Malaysia: Urban Farming	14
2.3.1 Community Agricultural Development Program	16
2.4 EFQM Excellence Model	18

2.4.1	Malaysia Business Excellence Framework (MBEF)	18
2.4.1.1	Visionary Leadership	22
2.4.1.2	Deliver Value to Stakeholders	22
2.4.1.3	Organisational Agility	23
2.5	Relationship between the Business Excellence and the Sustainability	23
2.6	Summary	24
CHAPTER 3 : RESEARCH METHODOLOGY		26
3.1	Introduction	26
3.2	Research Framework	26
3.3	Instrumentation	27
3.4	Data Collection	29
3.5	Measurement Item	29
3.6	Summary	33
CHAPTER 4 : RESULT AND DISCUSSION		34
4.1	Finding	34
4.2	The Management Performance of The Respondents	36
4.2.1	Research Question 1	36
4.2.2	Research Question 2	37
4.2.3	Research Question 3	40
4.2.4	Calculation of SIUA Score	43
CHAPTER 5 : CONCLUSION		44
5.1	Introduction	44
5.2	Conclusion of Main Finding	44
5.3	Policy Implication	45
5.4	Limitation of Research	46

5.5	Recommendation	46
	REFERENCES	48
	APPENDIX A Petaling jaya city council map	51
	APPENDIX B MBEF Scoring Interpretation	52

@This item is protected by original copyright

LIST OF TABLES

	PAGE
Table 3.1 Demographic Information	28
Table 3.2 Research Question	28
Table 3.3 Approach Deployment Learning Integration (ADLI)	29
Table 3.4 Approach Deployment Learning Integration (ADLI) Scoring Scale	30
Table 3.5 Level Trend Comparison Integration (LeTCI)	31
Table 3.6 Level Trend Comparison Integration (LeTCI) Scale	31
Table 3.7 Malaysia Business Excellence Barometer	32
Table 4.1 Summarize Respondent Demographic	34
Table 4.2 Cronbach's Alpha	35
Table 4.3 SIUA mark based on BEMF score	43

LIST OF FIGURES

	PAGE
Figure 1.1 Flow of goods and services in a farm system (Reijntjes, C. et al., 1992)	5
Figure 1.2 Malaysia Business Excellence Framework (MITI, 2022)	7
Figure 2.1 Main objectives, processes and products for urban agriculture	13
Figure 2.2 Urban Agriculture Program Objective	17
Figure 2.3 Business Excellence Framework for Malaysia (MPC, 2018)	20
Figure 2.4 MBEF Guiding Principles	21
Figure 3.1 Research Framework of Urban Farming	26

@This item is protected by original copyright

LIST OF ABBREVIATIONS

ADLI	Approach Deployment Learning Integration
DOA	Department of Agriculture Malaysia
EFQM	European Foundation for Quality Management
LeTCI	Level Trend Comparison Integration
MAFI	Ministry of Agriculture and Food Industry
MBEF	Malaysia Business Excellence Framework
MBPJ	Majlis Bandaraya Petaling Jaya
MPC	Malaysia Productivity Corporation
SIUA	Sustainable Index Urban Agriculture
TQM	Total Quality Management
UN	United Nation
UNSDG	United Nation Sustainable Development Goals

@This item is protected by original copyright

Analisis Sistem Pengurusan Kebun Bandar Di Majlis Bandaraya Petaling Jaya

ABSTRAK

Pertanian bandar semakin popular di kawasan bandar yang melibatkan aktiviti pengeluaran makanan dan menjana pendapatan. Pertanian bandar bermanfaat untuk alam sekitar dan keselamatan makanan. Oleh kerana sumber tanah yang terhad dan bernilai tinggi di kawasan tersebut, maka tanah lapang yang bersesuaian sahaja perlu dikenal pasti yang bersesuaian dengan aktiviti pertanian bandar. Majlis Bandaraya Petaling Jaya telah menubuhkan Kebun Kita untuk mempromosikan kebun bandar menggunakan jenama Kebun Kita di Petaling Jaya. Terdapat banyak kajian mengenai faedah pertanian bandar namun kajian mengenai pengurusan kebun bandar amat sedikit. Kebun komuniti di kawasan bandar memerlukan sistem pengurusan yang berkesan untuk memastikan ia memberi impak dan faedah yang tinggi kepada komuniti dan pihak berkepentingan. Kajian ini membincangkan mengenai analisis pengurusan pertanian bandar di Petaling Jaya menggunakan Rangka Kerja Kecemerlangan Perniagaan Malaysia dari perspektif Indeks Kebun Bandar Mampan, IKBM yang diwujudkan berdasarkan objektif program kebun bandar Jabatan Pertanian. Kajian ini mengenal pasti faktor dan hubungannya dengan IKBM serta mencadangkan impak kepada polisi berdasarkan dapatan kajian.

@This item is protected by original copyright

Analysis Urban Farming Management System In Petaling Jaya City Council

ABSTRACT

Urban farming is a type of agriculture practiced in areas that are mainly populated by people. It involves the production of food and earning. Urban farming is beneficial for the environment and food security. Due to the high land value in the area, it is necessary to identify the suitable lands for farming. Petaling Jaya City Council has established Kebun Kita to promote community farm in Petaling Jaya. There are many research regarding benefit of urban farming but there a lack of study on management element in urban farming. Community farm in urban area need effective management system to ensure they are giving high impact and benefit toward community and stakeholder. This paper is dealing with the analysis on urban farming management in Petaling Jaya using Malaysia Business Excellence Framework from the perspective of Sustainable Index Urban Agriculture, SIUA that derived from Urban Farming Program objective under Malaysia Department of Agriculture. This paper identifies the factors and examine the relationship between this factors and SIUA. Policy implication also provided based on the research findings.

@This item is protected by original copyright

CHAPTER 1 : INTRODUCTION

1.1 Introduction

Food and Agriculture Organization of the United Nations, FAO state that the world is at critical juncture as the world has not generally progressing either towards Sustainable Development Goal (SDG) Target 2.1, of ensuring access to safe, nutritious and sufficient food for all people all the year and SDG Target 2.2, of eradicating all forms of malnutrition. COVID-19 pandemic has great impact on the food security and nutrition status for millions of people and expose weakness in our food system (FAO, 2021). FAO also state that close to 12 percent of the global population was severely food insecure in 2020 representing 928 million people. Drivers that are external (e.g. conflicts or climate shocks) and internal (e.g. low productivity and inefficient food supply chains) to food systems are pushing up the cost of nutritious foods which, combined with low incomes, are increasing the unaffordability of healthy diets. The percentage of the population who cannot afford a healthy diet in countries affected by multiple drivers in 2019 was 39 percent and 66 percent higher, respectively, than in countries affected by a single driver or no driver at all. Increases in the unaffordability of a healthy diet are associated with higher levels of food insecurity, especially among lower-middle-income countries. Depending on context, there are six pathways to follow towards food systems transformation: integrating humanitarian, development and peacebuilding policies in conflict-affected areas; scaling up climate resilience across food systems; strengthening resilience of the most vulnerable to economic adversity; intervening along the food supply chains to lower the cost of nutritious foods; tackling poverty and structural inequalities, ensuring interventions are pro-poor and inclusive; and strengthening food

environments and changing consumer behaviour to promote dietary patterns with positive impacts on human health and the environment.

Urban agriculture (UA) has the potential to contribute to local food security by increasing the availability of an access to fresh and healthy produce. In Rio de Janeiro, Brazil, urban gardens have been created in informal settlements and schools where the food produced goes to engaged households, with surpluses donated or sold to the neighbouring community, thus improving access to nutritious foods and generating income for urban dwellers (FAO, 2021). During the COVID-19 pandemic, maintaining the supply of nutritious foods in urban areas has become a great challenge. In Ecuador, linkages between some areas of the city of Quito with a high prevalence of COVID-19 cases and farmers from the surrounding province have been strengthened through neighbourhood cultural societies that have established a marketing and distribution network, receiving food baskets from farmers and then distributing them to buyers directly at their homes. These baskets include fresh fruits and vegetables produced organically, so urban dwellers have access to nutritious foods and farmers face a shorter marketing chain, which allows them to sell their products at a lower cost. These practices have continued following the pandemic lockdowns, creating new and innovative linkages between urban dwellers and rural food producers. Agricultural Transformation and Inclusive Growth: The Malaysian Experience produced by World Bank state that “No country has made a transition to high-income status without successful agricultural transformation” “Not taking advantage of the transformative role of agriculture slows and delays economic transformation to the detriment of the growth rate, poverty reduction, food security, and the broad welfare of urban and rural people.”

In 2014, Urban Agriculture Division in the Department of Agriculture of Ministry of Agriculture and Food Industry's (MAFI) was established and started promoting Community Agricultural Development Program also known as an urban agriculture program that helps households to reduce living costs through food production, creating community agricultural activities to ensure adequate, quality, and safe food production and creating social interaction and encouraging communication among the community with the guidance of the Department of Agriculture. This program involves residents in urban and suburban areas with the cooperation and involvement of various relevant departments and agencies including the State and Federal levels. The agricultural community serves as one of the strategies to encourage social interaction between locals. Besides, community-based agriculture helps to increase self-motivation among program participants with the initiative to start in the communities and work together in teams to produce food products either for their consumption or for sale.

In 2020, Malaysia government has allocated provisions in the National Economic Recovery Plan (PENJANA) to make contributions of seeds, fertilisers, infrastructure, equipment, advisory service and others worth RM500 for each recipient and RM50,000 for every community with total of RM10 million allocation. Kebuniti Agriculture Program. National Agrofood Policy 2021-2030 (NAP 2.0) launch in October 2021 to focus on a competitive and innovative agrofood sector, people's well-being, and a paradigm shift toward a sustainable food system as a climate change adaptation strategy. One of the key measures was maintaining Kebuniti Agriculture Project with a focus on the B40 group. This will assist the target group in enhancing economic activities in order to ensure the country's food supply remains stable and to create revenue possibilities for farmers, breeders, and fishers. To support this, additional RM30 million other than the annual RM4.5 million to the Kebuniti program in 2021. since 2014, MAFI provided an

allocation of RM63.32 million for the Kebuniti program which benefited 39,608 people in 25,775 locations throughout the country.

In 2017, Petaling Jaya City Council (MBPJ) Landscape Department has started “Kebun Kita” initiative that use vacant or unused land turned into community garden by the community. Landscape Department role is only to give technical advice and basic training to the participant. Funding can be acquired through MBPJ PJ SEED (Social, Environment, Economy Development) community grant provided by MBPJ. Since then, “Kebun Kita” had won awards such as Malaysia Landscape Architecture Awards 2018 and 2019, Selangor Research and Development and Innovation Expo 2019 and World Town Planning Day 2018 and 2019 (Majlis Bandaraya Petaling Jaya, 2022).

Despite its impact on food security, health and economic benefits, urban agriculture in Malaysia faces major challenges which is limited space, limited resources and education (Islam & Siwar, 2012). Furthermore, UA among farmers in the city was influence by their level of cognitive, affective and behavioural (Zainal & Hamzah, 2017) creating need to analyse the Sustainable Urban Agriculture Index in order to solve these challenges, good management practice is needed to overcome this challenge.

1.2 Problem statement

Urban agriculture is a vital component of the global food system. With the population expected to grow significantly by 2050, the need for more food production is acknowledged. Urban farming and other agricultural activities can contribute to economic development and protect the environment. Urban farming involves the use of land and various equipment in an urban environment. Despite its small size, urban farms

are becoming a reliable source of fresh food for communities in need. The rise of urban farming was most visible during the outbreak of the COVID-19 pandemic in 2020. It caused food chain disruptions and raised food prices, which disproportionately affected low-income households.

According to Urban Agriculture Program, successful UA will be able help reduce cost of living, creating community agricultural activities to ensure adequate, quality and safe food production and creating social interaction and encouraging communication among the community. To achieve this, UA need to be organised, sustainable, profitable and have conducive urban farming ecosystem. This is the foundation of sustainable index urban agriculture (SIUA).

In the context of agriculture, 'sustainability' basically refers to the capacity to remain productive while maintaining the resource base (Reijntjes et al., 1992). The Figure 1.1 show the flow of goods and services (indicated by arrows) in a simplified farm system (Reijntjes et al., 1992).

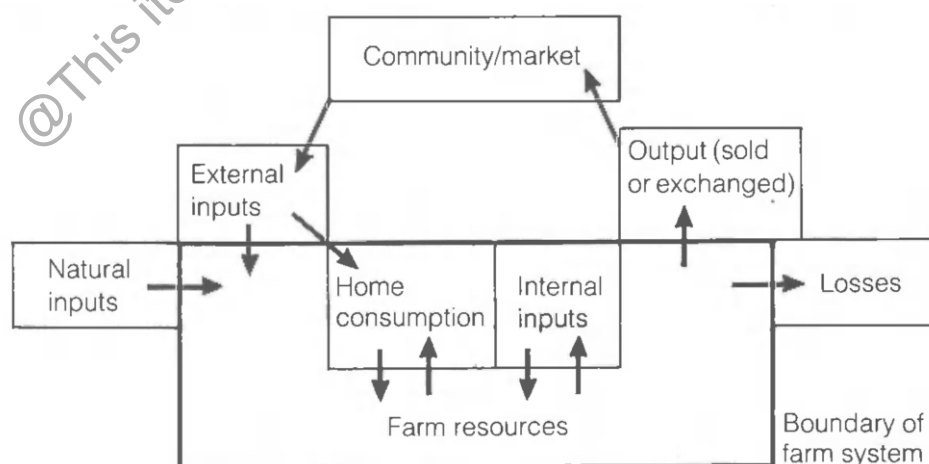


Figure 1.1 Flow of goods and services in a farm system (Reijntjes, C. et al., 1992)

Managing urban agriculture should be treated as business where it involves calculating resources needed to produce output and turn it into profit. To have successful agriculture farm, the farm must have proper management through several key success factor (Nivens et al.,2002). The profitability of farm operations was positively influenced by various factors such as production intensity and cost control (Nivens et al.,2002). Research has found that farm profit correlate with management in the farm (Mishra et al., 1999)

Business excellence is a process or system that is designed to improve the performance of an organization. It involves developing and implementing procedures and techniques that can help improve the efficiency and effectiveness of an organization (Robin Mann, Musli Mohammad & Ma Theresa A. Agustin). Malaysia has developed Malaysia Business Excellence Framework (MBEF) under Malaysia Productivity Corporation as a basis for national quality or business award programmes. In Malaysia, the Ministry of International Trade and Industry (MITI) organised the national level Prime Minister's Industry Excellence Award since 1990. Henceforth, the Malaysia Business Excellence Framework (MBEF) has been used as the only evaluation or assessment tool for the award starting 2014 (MPC, 2022). Visionary leadership, organisational agility and deliver value to stakeholder is the 3 main principles supported by 8 principles to drive excellence and superior performance of organisation.



Figure 1.2 Malaysia Business Excellence Framework (MITI, 2022)

MBEF is presented to all organisations wanting to pursue excellence and bring all members of their organisations together for common goals and shared values. Adapting MBEF in UA is one of the methods to measure and improve the UA in achieving better impact and result while supporting the government initiative to increase the productivity in Malaysia.

One of the challenges of “Kebun Kita” was managing the community to execute successful community farm through urban farming especially managing UA farmers community and stakeholder. Many UA projects have failed because of inappropriate planning and implementation approaches such as top down and supply led approaches. Other causes of failure include poor and inadequate consultation with relevant stakeholders, human resource mismanagement, and unclear definition ownership. These problems can to a large extent be identified and analysed within a farming management use in “Kebun Kita” farm using MBEF. Urban Farming is known to create many

impactful things in term of food security and social well-being from research. However, there is lack of studies made to evaluate and assess the urban farming management and not completely investigated. This is important as management system will ensure the success of urban farming especially as it involved many stakeholders. There is urban farm that has been abandon because of the lack in management system. The need for studies is imperative. It is no longer a case of simply establishing urban farming, but also to apply the management system to urban farming for communities to gain the benefit of urban farming.

@This item is protected by original copyright

1.3 Research objectives

The purpose of this study was to identify the implementation of management system in urban farming activities at Petaling Jaya City Council area regarding the impact on urban farming activities in developing the impactful urban farming in Petaling Jaya. Accordingly, the objectives of the study include:

- i) To identify factors (visionary leadership, organisation agility, deliver value to stakeholder) to the successful sustainable index urban agriculture, (SIUA) (Reduced cost of living, activities to ensure adequate, quality and safe food production, creating social interaction and encouraging communication among the community).
- ii) To examine relationship between factors (visionary leadership, organisation agility, deliver value to stakeholder) to the successful sustainable index urban agriculture, SIUA (Reduced cost of living, activities to ensure adequate, quality and safe food production, creating social interaction and encouraging communication among the community).
- iii) To propose policy implication on Urban Agriculture based on SIUA.

1.4 Research question

Based on the purpose and objectives of the study, the following research questions were posited:

- i) Does the visionary leadership have a significant relationship towards SIUA?
- ii) Does the organisation agility have a significant relationship towards SIUA?
- iii) Does the deliver value to stakeholder have a significant relationship towards SIUA?

1.5 Scope of the study

This study will be focusing on the management analysis through visionary leadership, organisational agility and deliver value to stakeholder with SIUA. The main scope is for “Kebun Kita” urban farmers in MBPJ. 6 “Kebun Kita” community farm was selected as population for the survey. A sampling of 30 urban farmers selected as respondents for the questionnaires. 3 principles from MBEF were used to analyse the impact on SIUA.

1.6 Significance of study

This investigation helped with recognizing the SIUA urban agriculture management implementation in the Petaling Jaya City Council. The outcomes can give policy maker, stakeholder, and urban agriculture participant the important information about the importance of having management system to achieve the objective and impact from urban agriculture activities. The discoveries can add to improvement in urban farming management and the learning base for the stakeholders and urban farming participant in creating high impact and successful urban farming in Petaling Jaya City Council area.

1.7 Delimitation of study

This study had several delimitations, and they include:

- i) The validity of the data because of insufficient validity of the data. This study only can be used cannot be result generalisation for all UA
- ii) Limitation on the analysis.
- iii) Issue on size small sample cannot be generalised

CHAPTER 2 : LITERATURE REVIEW

2.1 Introduction

This chapter focus on reviews and finding related studies on the urban agriculture with Malaysia Business Excellence Framework (MBEF) that will be use as Sustainable Index Urban Agriculture, SIUA. MBEF use TQM principles and the criteria for business excellence based on the Malcolm Balridge Criteria as a tool with holistic approach for organisations intending to move their performance to the next level, strengthening engagement and creating greater value to stakeholders as well as thriving in the competitive marketplace. The use of MBEF to measure the urban agriculture performance based on Community Agricultural Development Program objective under Malaysia Department of Agriculture, DOA will quantify and evaluate the performance of the urban farm's sustainable practice.

2.2 Urban agriculture

A definition of urban agriculture is necessary to compare the different articles on the said subject. It is important to clearly define the studies for purposes of differentiation and clarification. Furthermore, definitions are mental tools to enhance understanding and describe the complex reality. Various definitions of urban agriculture have been offered in the growing literature on urban agriculture (Aldington, 1997; FAO, 1999b; Mougeot, L.J.A., 1999; Nugent, R.A., 1997; Quon, 1999; Smit, 1996). Urban agriculture comprises the production, processing and distribution of a diversity of foods, including vegetables

and animal products within (intra-urban) or at the fringe (peri-urban) of an urban area. Its main motivation is food production (for personal consumption or sale) and/or higher income. This definition only includes the questions pertaining to the where, what and why, and aims at distinguishing between rural and urban agriculture and agricultural activities conducted for recreational purposes. The main objectives, processes and products of urban agriculture are illustrated in Figure 2.1.

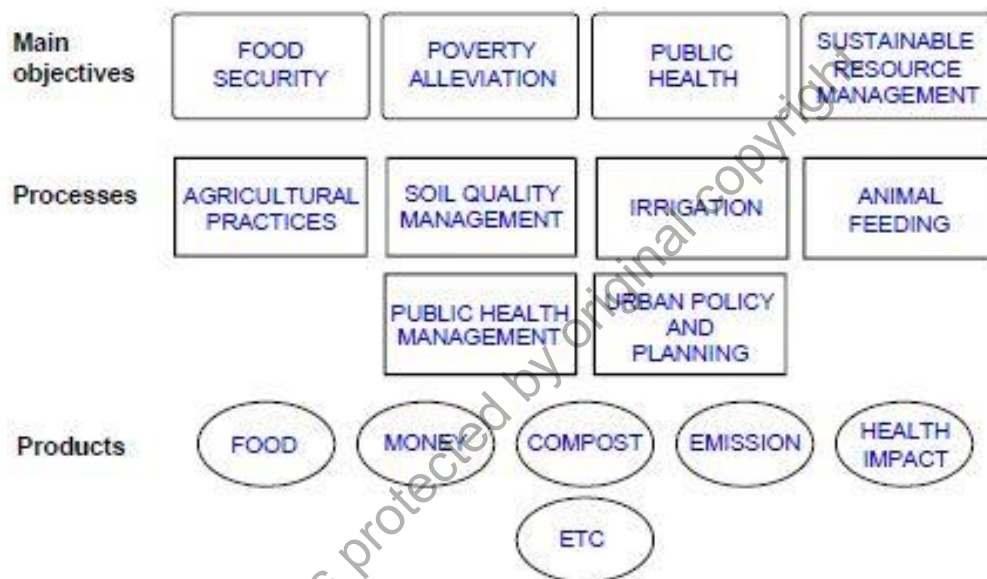


Figure 2.1 Main objectives, processes and products for urban agriculture

The main objectives, which include food security, poverty alleviation, public health, and sustainable resource management, are strongly linked to the problems of urbanization and managerial skills of the cities to solving them. The main driving forces for farmers to become engaged in urban agriculture are food security and income generation. According to the Urban Agriculture Network (TUAN), of the roughly 800 million people currently involved in urban agriculture worldwide, 200 million produces for the market and 150 million are full-time employees. The literature has different views on the potential of urban agriculture. Between 1993 and 2005, urban agriculture could increase its share of world food production from 15% to 33%, its share of vegetables,

meat, fish, and dairy products consumed in cities from 33% to 50%, and the number of urban farmers producing for the market from 200 to 400 million (Smit, 1996; Mougeot, et al., 1998). However, Nugent takes a more cautious view: urban agriculture is potentially viable and productive but not a panacea to solve the most severe problems of food security in cities (Nugent, 1997). The prevalent question is to what extent can urban agriculture contribute to the challenges of urban development. It has to be taken into account that the poor are not the only local food producers, but they are more dependent on it for income and nutrition. Apart from food security and poverty alleviation, urban agriculture is important for public health and sustainable resource management. The direct impacts are improved health conditions amongst urban farmers thanks to a richer vitamin and protein diet. Furthermore, more appropriate waste management practices lead to a decrease in health risks. Sustainable resource management implies a more efficient use of resources, including a reduction and reuse of waste flows whenever possible. Closing the nutrient loop in the urban environment by reusing the so-called waste as fertilizers in urban agriculture is an option to the prevalent open-loop and linear urban systems (Nelson, 1996; Smit, 1996).

2.3 Urban agriculture in Malaysia: Urban Farming

In general, about 19 cities and town area in Malaysia are classified as urban with more than 100,000 people (World Bank, 2015). Majority of the people in the urban areas live in housing estates that consists of landed properties and high-rise condominiums. It is estimated that around 76% of the total population live in urban areas (World Bank, 2020). Most populations are concentrated in coastal zones on the West Coast of Peninsular Malaysia where mega cities are located, such as Kuala Lumpur, Shah Alam, Putrajaya, Johor Bahru, Ipoh and Penang Island (Chee et al., 2017). Statistics showed that

about 56% of the population in the urban areas was comprised of the Bottom 40 (B40) income group. Some households living in this location earning less than RM2537 a month (Dension, 2016). This group spent between 50% and 70% of their income to buy food that caused them to face the 'urban poor' phenomena (Von Braun, 2008). To overcome this situation, the government of Malaysia has introduced various strategies and incentives. One of the initiatives was through the concept of urban farming. Urban farming is an agricultural practice that applies environmentally friendly technologies and systems to crops and livestock (Rafiqah & Aziz, 2015). Urban farming is integrated into the urban ecosystem for providing food to the surrounding population. Indirectly, transportation and energy costs can be reduced as food sources are located nearby. Mlozi (1996) defined urban farming as "an initiative to address the economic crisis that contributes to household income, food resource availability, employment and market opportunities for the related agricultural sector in the urban economy". By implementing urban farming, human capital and resources such as energy can be optimized through reduced food transportation cost because they were within the same area. All in all, urban farming can be seen as an integrated approach which is not the only source of fresh food but also as a mechanism of social integration, economic development and environmental sustainability (McEldowney, 2017). The concept of urban farming is very relevant to city communities who are living in high-rise buildings. The concept of the food systems in the cities have proven that urban farming could overcome the urban poor issues, as well as increase the food in the crop production systems. However, the application of urban farming is relatively new in Malaysia (Noriah et al., 2017). People in the high-rise condominiums, for example, plant food crops for self-consumption or potted plants for landscape. Traditionally, communities in the city used many approaches in planting the food crops or flowers in their home, such as in the pot. Urban farming may also include

breeding and keeping of livestock, bees, aquaculture, aquaponics, and non-food products such as planting flowers and producing seeds. Urban farming is seen as supporting agriculture in a more economically oriented way. Besides, urban farming brings an affordable approach to minimize spending, especially for the B40 low-income group. However, the success of establishing the urban farming community programs is not a short time effort. It demands a comprehensive strategy from the government, the implementing agencies and the community awareness towards further enhancing national food sovereignty, whether in the present or in the future.

2.3.1 Community Agricultural Development Program

In 2014, Urban Agriculture Division in the Department of Agriculture of Ministry of Agriculture and Food Industry's (MAFI) was established and started promoting Community Agricultural Development Program also known as an urban agriculture program that helps households to reduce living costs through food production, creating community agricultural activities to ensure adequate, quality, and safe food production and creating social interaction and encouraging communication among the community with the guidance of the Department of Agriculture. This program involves residents in urban and suburban areas with the cooperation and involvement of various relevant departments and agencies including the State and Federal levels. The agricultural community serves as one of the strategies to encourage social interaction between locals. Besides, community-based agriculture helps to increase self-motivation among program participants with the initiative to start in the communities and work together in teams to produce food products either for their consumption or for sale. Thus, DOA has set Urban Agriculture Program objective as shown in Figure 2.3.

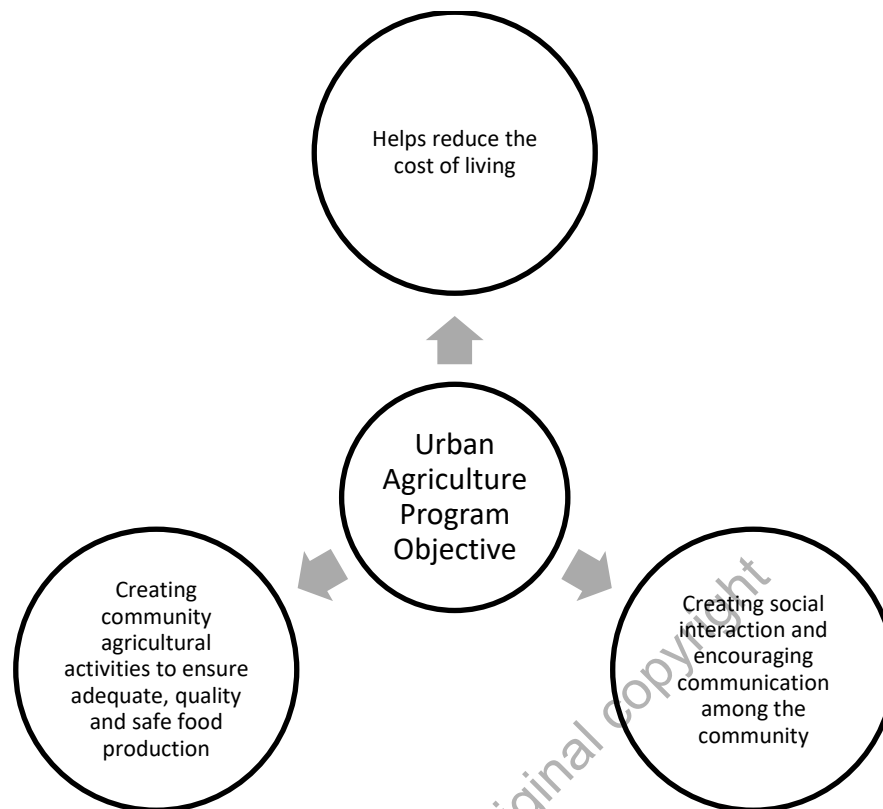


Figure 2.2 Urban Agriculture Program Objective

Kebuniti Agriculture Program. National Agrofood Policy 2021-2030 (NAP 2.0) launch in October 2021 to focus on a competitive and innovative agrofood sector, people’s well-being, and a paradigm shift toward a sustainable food system as a climate change adaptation strategy. One of the key measures was maintaining Kebuniti Agriculture Project with a focus on the B40 group. This will assist the target group in enhancing economic activities to ensure the country’s food supply remains stable and to create revenue possibilities for farmers, breeders, and fishers. To support this, additional RM30 million others than the annual RM4.5 million to the Kebuniti program in 2021. since 2014, MAFI provided an allocation of RM63.32 million for the Kebuniti program which benefited 39,608 people in 25,775 locations throughout the country.

2.4 EFQM Excellence Model

The European Foundation for Quality Management, EFQM Excellence Model, which is founded on the concepts of Total Quality Management, is a tool for enterprises to implement an acceptable management system established in 1989. This model is an organization's self-assessment approach that provides a picture of the organization's strengths, shortcomings, and areas for progress. Using the EFQM Excellence Model, organisations can provide opportunities for intrapreneurs to demonstrate creative behaviours. The EFQM model provides a framework for organisations to assess their current "degree of excellence" and identify areas where they may improve. The model also ensures that business decisions consider the needs of all stakeholders and are in line with the company's goals.

2.4.1 Malaysia Business Excellence Framework (MBEF)

Rapid urbanisation and the high population growth and low controlled planning by municipal bodies in urban fringe areas, are a challenge to the urban planning process (Tewari & Muthoo, 1997). Both the increasing urban poverty and decreasing environmental quality give cause for concern and call government interactions. Realizing the significant importance of the urban farming towards sustainable food supply, it is best if businesses participate in structured programs that cover the core values of Business Excellence (BE). BE meant "excellence" in strategies, business practices, and stakeholder-related performance results that have been validated by assessments based on specific models proven to support the challenging journey towards excellence (Ionica et al., 2010). Business excellence is a process that involves developing and implementing

strategies and procedures that are designed to achieve and exceed goals. It has evolved into frameworks and models that help organizations become more successful. Over time, the term “Business Excellence” started to replace the terms “Quality” and “TQM” (total quality management). Today, many countries employ such BE models, and TQM as a key mechanism to improve the organizational performance and national competitiveness. The Baldrige criteria has been adapted by the Malaysia Productivity Corporation (MPC) and transformed into the Business Excellence Framework (BEF), which as illustrated in Figure 2.2. BEF is a set of management practices applied in an organization harnessing the full potential of its resources to create greater value to stakeholders and ensure organizational sustainability. Organizational adopting the BEF will be able to:

- a) Create visionary and inspirational leadership
- b) Achieve stronger financial performance
- c) Drive innovation in products and services
- d) Focus on customer service and satisfaction
- e) Create effective business planning processes
- f) Raise productivity and reduce operational costs

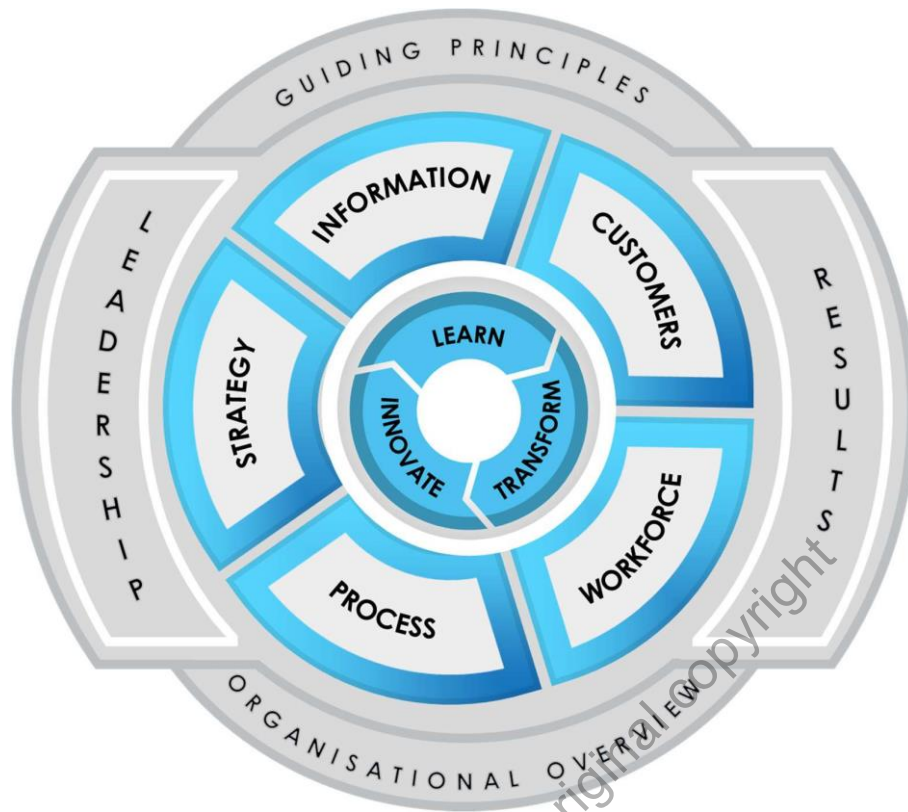


Figure 2.3 Business Excellence Framework for Malaysia (MPC, 2018)

Initially, BEF was developed by respective national bodies as a basis for national quality or business award programmes. In Malaysia, the Ministry of International Trade and Industry (MITI) organised the national level Prime Minister's Industry Excellence Award since 1990. Henceforth, the Malaysia Business Excellence Framework (MBEF) has been used as the only evaluation or assessment tool for the award starting 2014. MBEF is a non-prescriptive assessment framework based on internationally comparable and holistic frameworks for managing organisation successfully. MBEF provides a comprehensive approach of assessment across seven criteria or focus. All criteria are interlinked and affected each other. Leadership drives the organisation to achieve Results through effectiveness process of Strategy, Information, Customers, Workforce and Process. The organisation Learn, Innovate and Transform from the Results to improve all

other areas of focus, in turn will improved the Results. The Criteria is guided by the Guiding Principles of a world-class performance attributes. Organisational Overview is the background of an organisations which consist of organisation’s direction, internal and external factors affected the organisation. The guiding principles are important values to move organisation towards world class performance. It provides organisation with overall understanding on the importance of these principles to drive excellence and superior performance. The MBEF Criteria depicted in Figure 2.3 are built on these eleven principles: Visionary Leadership, Leading Transformation, Strategic Direction, Management by Fact, Engaged Workforce, Excellence in Execution, Innovation Led Process, Deliver Value to Stakeholder, Organisational Agility, Customer Centric and Corporate Citizenship.



Figure 2.4 MBEF Guiding Principles

2.4.1.1 Visionary Leadership

Senior leaders set an organisation's vision, mission and goals that focus on stakeholder interests, while organisation's values guide organisational thinking and actions. The values on which leaders built must be appropriate for the time, place, and environment in which the organisation operates. Leaders are accountable for their actions and ensure organisation are aware of and take steps to comply with relevant laws and regulations, act ethically and with integrity. Senior leaders create a supportive environment in facing new economic challenges and business trends, by fostering a culture of excellence and supported by clear process for making strategic risk-taking decision. Leaders as a role model, can create excitement, positive momentum and longevity in an organisation. Visionary leaders have the ability for inspiring others, encourage, empower and equip their team members.

2.4.1.2 Deliver Value to Stakeholders

By delivering value to stakeholders, the organisation creates a value-adding strategy, for example about how best to provide value to customers. An organisation's value proposition tells a stakeholder the reason why a product or service is best suited for that targeted stakeholder. To deliver value to stakeholders, organisations require to meet, and manage the needs and expectation of their stakeholders. For example, shareholders expect superior and sustainable returns commensurate with their risk appetite, with profits earned in a responsible manner. Customers value the ability of organisations to anticipate needs as well as offering better products, a superior experience and greater

convenience. Employees value an employer of choice. Society value beyond corporate citizenship and philanthropy.

2.4.1.3 Organisational Agility

Organisation should be capable to evolve and adapt due to changes in their business environment that demands constant change such as the development of new industry-changing technologies, sudden shifts in overall market conditions, shorter product development cycle, new government regulation etc. Organisation should be capable to mitigate and manage risk in making transformational changes in the organisation. Work processes must be simple enough to allow ease of improvement. Often transformation requires changing of key and support processes, supplier networks, skill and knowledge of employees etc.

2.5 Relationship between the Business Excellence and the Sustainability

The triple bottom line, which comprises of three sustainable dimensions: people, planet, and profit, is the most popular translation of sustainability into business on a corporate level and can be describe as below (Jankalová & Jankal, 2020)

- People— The social dimension relates to equity for all people and their opportunity to get access to resources for basic requirements like water and food, as well as development through better living conditions like health care and education.

- Planet— The environmental dimension relates to the Earth's ecology as well as reductions in human-caused footprints and ecological imbalances such as pollution, the ozone layer, greenhouse gases, non-biodegradable trash, deforestation, overfishing, and other issues.
- Profit— The profit component highlights the importance of producing commodities and services to improve global living conditions.

The word "business excellence" refers to achieving and maintaining exceptional levels of performance that meet or exceed the expectations of all stakeholders. According to the Arabia CSR Network (2016), an organization's sustainability can only be realised by achieving exceptional achievements in both the CSR and Business Excellence fields. EFQM (2015) agrees, stating that the convergence of CSR and Business Excellence demonstrates a commitment to sustainability. Sustainability cannot be achieved without Business Excellence, just as Business Excellence cannot be achieved without TQM (Jankalová & Jankal, 2020). Sustainable agriculture focuses on producing fresh products using environmentally friendly, environmentally safe, cost-effective, and economically profitable tactics (Marshall, 2021)

2.6 Summary

In summary, the relationship between Malaysia Business Excellence Framework and urban agriculture is close as urban agriculture is a type of business. Community organisation that run urban agriculture need to achieve three objectives from DOA urban Agricultural program by implementing MBEF practice. The management practice standard used in MBEF will create an environment for continuous improvement that