

# BARRIERS INFLUENCING INTENTION TOWARDS PRACTICING URBAN AGRICULTURE

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# BARRIERS INFLUENCING INTENTION TOWARDS PRACTICING URBAN AGRICULTURE

BY

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A project report submitted to Faculty of Agriculture, Universiti Putra Malaysia, in fulfilment of the requirement of PPT 4999 (Final Year Project) for the award of the degree of Bachelor Of Science (Agribusiness)

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### **DECLARATION FORM**

This project entitled Barriers Influencing Intention Towards Practicing Urban prepared by Abdullah Asahari bin Mohd Johari (173923). This project report was submitted to the Faculty of Agriculture in order to fulfil the requirement of Final Year Project, which is PPT 4999 for the award of Bachelor of Science (Agribusiness). I hereby declare that the content of this project report is my own original works.



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#### ABSTRACT

Agricultural activity among the residents living in the city for the purpose of producing food itself is a practical approach and reduces daily spending due to the rising cost of living in the city. Based on the situation, there is effort to implement urban agriculture that aims to encourage urban dwellers to plant their own vegetables / crops around their homes so that the burden of rising cost of living can be reduced.

The purpose of this study is to determine whether a person's barriers to urban farming activities. Samples of 400 respondents were randomly selected in the Klang Valley. Quantitative data was collected through surveys and analyzed using descriptive analysis and analysis factors.

The analysis shows that the majority of them assuming that knowledge is very important to make urban agriculture activities. Knowledge is needed because it is the starting point in urban agriculture. Land and cost are also said to be a barrier for someone to do or start urban agricultural activities. This is evidenced by the results of the factors analysis that have been made and find that knowledge, land and cost are the barrier that are still relevant today.

#### ABSTRAK

Aktiviti pertanian di kalangan penduduk yang tinggal di kawasan Bandar sebenarnya bertujuan untuk menghasilkan makanan untuk dimakan sendiri, ini adalah pendekatan praktikal dan mengurangkan kos perbelajaan seharian yang meningkat yang disebabkan oleh peningkatan kos sara hidup di Bandar. Berdasarkan situasi di mana terdapat usaha pelaksanaan Bandar yang bertujuan untuk mengalakkan peduduk di Bandar untuk menanam sendiri sayuran dan tanaman di kawasan rumah mereka untuk mengurangkan beban akibat kos peningkatan sara hidup.

Kajian in bertujuan untuk mengenalpasti halangan terhadap niat seseorang untuk melakukan pertanian Bandar. Sampel 400 responden telah dipilih secara rawak di kawasan Lembah Klang. Data kuantitatif dikumpul melalui kaedah kaji selidik dan dianalisa menggunakan analisis diskriptif dan analisa faktor.

Analisis menunjukan bahawa majoriti menggangap pengetahuan adalah penting untuk melakukan aktiviti pertanian Bandar. Pengetahuan diperlukan kerana ia merupakan satu permulaan dalam pertanian Bandar. Tanah dan kos juga disebut sebagai halangan di dalam niat seseorang untuk melakukan pertanian Bandar.Ini adalah berdasarkan keputusan analisis faktor yang telah dilakukan dan mendapati pengetahuan, tanah dan kos adalah halangan yang masih lagi releven sehingga kini.

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# BARRIERS INFLUENCING INTENTION TOWARDS PRACTICING URBAN AGRICULTURE IN KLANG VALLEY, SELANGOR

### **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 URBAN AGRICULTURE**

The world's population living in urban areas has been increasing dramatically over the years. The "State of the World Cities" reported by UN- Habitat (2004) estimated that by 2030, 60 percent of the world's population will start moving urban areas. Increasing population in urban areas means they will be a need for a large area for producing their own food. Indirectly, large land is required in urban areas for the purpose of producing food, especially those with very large population ratios in urban areas such as China and India (Deelstra & Girardet, 2001). This scenario shows that there is a need land in urban areas because urban agriculture can be developed and assist the survival of the people in the city.

The practice towards urban farming has existed over 30 years ago worldwide. It started since the agricultural crisis happened in 1980-1990 (Thielen, 2012). In 1980, it was the year of the crisis experienced by farmers in the United States where the results of sales in this century was the lowest even large farms is increasing (Lobao & Meyer, 2001). Since then, the rate of growth towards urban agriculture has been increasing primarily because people today start to thinking about urban agriculture. Urban agriculture has been in practice for quite a while ago (Smit et al., 2001), especially in countries like United States (Deelstra & Girardet, 2001). However, the term has not been widely used as little were known on the distinguishing characteristics of the traditional and urban agriculture practice.

The importance and benefit of urban agriculture have made many countries want to expand awareness about urban agriculture (Shamsudin et al., 2014). The agriculture field in general; indeed is a field that many people explore in the world. This is because the agricultural sector could provide revenue to the nation generally, and farmers as the citizens specifically. This can be seen in country like China. For example, in Shanghai the working population is 8.5 million people out of which. 3.5 million of them are working in the agricultural sector (Cai et al., 2011). Additionally, the world average now requires five percent university graduates for each year in agriculture for to fill vacancies in the agricultural industry (Thielen, 2012). Indirectly, graduates who fill vacancies in the agricultural industry are able to create a new phenomenon in diversifying urban agricultural practices.

Today's world can be seen how there are various ways to practice urban farming such as rooftop garden. Most European countries like France, Austria and Germany call rooftop garden as a green roof (Wong et al., 2003). The Rooftop Garden in these European countries is also created to solve the land problem that the rooftop garden is used as a tool to restore and improve the urban environment. This problem occurs because of available land in urban areas is very limited (Nektarios et al., 2004). In Asian countries, rooftop gardens have been implemented mainly in Singapore, Japan and Hong Kong aim to benefit the economic, social and environmental sectors and in Malaysia, it can be seen in the development of rooftop garden in Bandar Iskandariah, Johor (Maryanti et al., 2014).

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#### **1.2 BACKGROUND OF URBAN AGRICULTURE IN MALAYSIA**

Urban farming has become increasingly important in addressing food shortages and urban poverty problems faced by Malaysians. It is especially important in the food system sector in Malaysia (Shamsudin et al., 2014). According to the Malaysian Agricultural Research and Development Institute (MARDI), in Malaysia there has been a process of urbanization which has resulted in a high population in urban areas. It has indirectly led to increased demand for food supplies and rising cost of living. One of the ways to overcome this problem is by creating an urban agricultural program assisted by the MARDI.

Not only that, this urbanization has also caused social, economic, political and most important issues in terms of food system problems that have to be faced around the world. Malaysia's urban agriculture is one way to overcome this problem in providing food or services related to it. The impact of urban agriculture in addressing social issues can be seen how a person is able to generate income which help the cost of living and able to improve the country's economy as a result of the increase in total agriculture exports (Islam & Chamhuri, 2012). This frequent problem has led the government through the Department of Agriculture to introduce Urban Farming Program in 2014. The aim is to encourage urban people to do some agriculture practice and then can produce their own food and get some side income if possible.

According to the Department of Agriculture Malaysia, the City Agriculture Program is implemented to assist and guide households regardless of urban or rural areas to generate side income. The program also helps households in addressing the rising cost of living and, more importantly, helping households by producing their own food through urban agricultural activities. Among the objectives of this program is to encourage households to produce their own food products through agricultural activities. In addition, the program aims to assist households in generating side income and assist the government's efforts in improving food safety. The last objective is to cultivate the love of agriculture.

### **1.3 PROBLEM STATEMENT**

According to the Federal Agricultural Marketing Authority (FAMA), in 2013, Malaysia has been importing RM75.22 billion worth of agriculture and agriculture based products. It includes imports of feedstock, fisheries and crops amounting to RM38.88 Billion. In addition, imports of other agricultural products such as ornamental fish, forest products, palm oil and rubber amounted to RM29.45 Billion. Not to mention, imports of agricultural necessities such as fertilizers, poisons and agricultural machinery amounting to RM6.89 Billion.

According to United Nations Conference on Trade and Development (UNCTAD), in 2016, the United States was ranked first in importing food and agricultural products to US105.1 Billion. Followed by Germany (US67.1 Billion), China (US53.3 Billion) and Japan (US51.5 Billion). Malaysia is the 22nd most imported country of food and agricultural products totalling US11.3 Billion. This statistics is alarming and shows that self-production of food is inevitable and highly needed. As such, several measures have been taken by the government to reduce the gap import value. One of the steps taken by these countries to solve this issue by practicing urban agriculture. Razak & Roff, (2007) stated that urban agriculture practices in Malaysia are still low as most farmers in Malaysia are still practicing peri-urban agriculture. This is evidenced by the cultivation of vegetables in small containers intended to meet the small demand in urban areas or for own consumption. This indirectly raises the

question, why not many Malaysians practice urban agriculture. Hence, there are certain barriers that have led many Malaysians to venture into the field of urban agriculture extensively.

### **1.4 GENERAL OBJECTIVE**

I. To investigate barriers in intention towards urban agriculture.

## **1.5 SPECIFIC VARIABLES**

- I. To investigate the association between socio-demographic profile and intention towards urban agriculture;
- II. To determine the barriers related towards intention in towards urban agriculture.

## **1.6 THEORETICAL FRAMEWORK**



Figure 1.1: Theoretical Framework Barriers Influencing Intention Towards Practicing Urban Agriculture

#### REFERENCES

- Cai, J., Yang, Z., Liu, S., Liu, M., Guo, H., & Du, S. (2011). Urban agriculture development in Minhang, Shanghai. *Urban Agriculture Magazine*.
- Deelstra, T., & Girardet, H. (2001). Urban agriculture and sustainable cities. In Urban Agriculture and Sustainable Cities. https://doi.org/10.1177/095624789200400214
- Islam, R., & Siwar, C. (2012). The analysis of urban agriculture development in Malaysia. Advances in Environmental Biology.
- Lobao, L., & Meyer, K. (2001). The Great Agricultural Transition: Crisis, Change, and Social Consequences of Twentieth Century US Farming. *Annual Review of Sociology*. https://doi.org/10.1146/annurev.soc.27.1.103
- Maryanti, M. R., Ainur, Z. Z., Tan, P. W., Norhidayah, M. Y., Khadijah, H., Razali, M. N., & Maslinda, A. L. (2014). Rooftop garden development in Iskandar, Malaysia: Growth and perception. WIT Transactions on Ecology and the Environment. https://doi.org/10.2495/ESUS140351
- Nektarios, P., Tsiotsiopoulou, P., & Chronopoulos, I. (2004). Comparison of different roof garden substrates and their impact on plant growth. In *Acta Horticulturae*.
- Razak, S. a B. D., & Roff, M. N. M. (2007). Status And Potential of Urban And Peri-Urban Agriculture In Malaysia. *Mimeo*.
- Shamsudin, M. N., Rezai, G., & Kit Teng, P. (2014). Public Attitude Toward Urban Agriculture in Malaysia: Study on Values and Knowledge in Klang Valley. *Journal of Food Products Marketing*. https://doi.org/10.1080/10454446.2014.921873
- Smit, J., Nasr, J., & Ratta, A. (2001). Constraints to Urban Agriculture. Urban Agriculture: Food, Jobs and Sustainable Cities. https://doi.org/10.1016/S0022-3182(97)70254-1

Thielen, S. L. (2012). Factors influencing urban students to major in agriculture. ProQuest Dissertations and Theses.

Wong, N. H., Cheong, D. K. W., Yan, H., Soh, J., Ong, C. L., & Sia, A. (2003). The effects of rooftop garden on energy consumption of a commercial building in Singapore. *Energy and Buildings*. https://doi.org/10.1016/S0378-7788(02)00108-1

Ajadi, B., Adedapo, A., & Tunde, A. M. (2011). Impact of Climate on Urban Agriculture: Case Study of Ilorin City, Nigeria. *Global Journal of Human Social Science*.

- Deelstra, T., & Girardet, H. (2001). Urban agriculture and sustainable cities. In *Urban Agriculture and Sustainable Cities*. https://doi.org/10.1177/095624789200400214
- Islam, R., & Siwar, C. (2012). The analysis of urban agriculture development in Malaysia. *Advances in Environmental Biology*.
- Knoblauch, J. (2012). Agriculture in urban planning; generating livelihoods and food security. *Planning Perspectives*. https://doi.org/10.1080/02665433.2012.709075
- Maru Abebaw, B., & Juliet, A. (2014). Environmental perspective of urban agriculture in Debre Markos Town, Amhara regional state, Ethiopia. *Journal of Environment and Earth Science*.
- Mendes, W., Balmer, K., Kaethler, T., & Rhoads, A. (2008). Using land inventories to plan for urban agriculture: Experiences from Portland and Vancouver. *Journal of the American Planning Association*. https://doi.org/10.1080/01944360802354923
- Razak, S. a B. D., & Roff, M. N. M. (2007). Status And Potential of Urban And Peri-Urban Agriculture In Malaysia. *Mimeo*.
- Reid, H., & Satterthwaite, D. (2007). Climate Change and cities: why urban agendas are central to adaptation and mitigation. *Suistainable Development Opinion Published by the International Institute for Environment and Development* (*IIED*).
- Shamsudin, M. N., Rezai, G., & Kit Teng, P. (2014). Public Attitude Toward Urban Agriculture in Malaysia: Study on Values and Knowledge in Klang Valley. *Journal of Food Products Marketing*. https://doi.org/10.1080/10454446.2014.921873
- Smit, J., Nasr, J., & Ratta, A. (2001). Constraints to Urban Agriculture. Urban Agriculture: Food, Jobs and Sustainable Cities. https://doi.org/10.1016/S0022-3182(97)70254-1

- Zebedayo S. K Mvena. (1999). The Past, Present and Future of Urban Agriculture in Tanzania. J. Agri. Econ. Dev.
- Zeeuw, H. de. (2011). Cities, climate change and urban agriculture. *Urban Agriculture Magazine*.
- Zezza, A., & Tasciotti, L. (2010). Urban agriculture, poverty, and food security: empirical evidence from a sample of developing countries. *Food Policy*. https://doi.org/http://dx.doi.org/10.1016/j.foodpol.2010.04.007

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