



UNIVERSITI PUTRA MALAYSIA

***EMPOWERMENT OF URBAN AGRICULTURE COMMUNITY
PROGRAM'S PARTICIPANTS IN THE KLANG VALLEY, MALAYSIA***

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FEM 2022 13



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By

NUR SHUHAMIN BINTI NAZURI

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

June 2021

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DEDICATION

I dedicate this precious gift to my lovely parents Nazuri Kamis and Zainab Husin. Mama and Abah, this is for both of you. Thanks to both of my sisters who always support along the way of my study journey. Indeed, it is not the knowledge, which should come to us; it is we who should come to the knowledge. Always keep our dream alive.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Doctor of Philosophy

EMPOWERMENT OF URBAN AGRICULTURE COMMUNITY PROGRAM'S PARTICIPANTS IN THE KLANG VALLEY, MALAYSIA

By

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June 2021

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In Malaysia, Urban Agriculture program's initiative has brought local communities together to grow their own food in designated areas and at the same time to empower the community (Bernama, 2020). According to Strzelecka et al. (2017) participation is important in strengthening community empowerment. However, lack of participation among UA community resulted investment and initiative done by government to waste.

This study aims to identify dimension of participation (planning, implementation and evaluation) level of Urban Agriculture (UA) program's respondents towards economic and social empowerment independently, where their effect is design to be moderated by social capital consisting of bonding, bridging and linking. There are five objectives of this study which are : 1) to describe the socio-demographic characteristics of UA program's respondents and background of UA activities; 2) to determine the level of participation, social capital and empowerment of UA program's respondents; 3) to investigate the relationship between participation and empowerment of UA program's respondents; 4) to investigate the relationship between social capital and empowerment of UA program's respondents; 5) to determine the moderating effect of social capital in the relationship between participation and empowerment of UA program's respondents. This study recorded majority of the respondents were male, aged between 41-60 years old, married and has obtained secondary school/vocational. Majority of them are also either self-employed or retired with family members of 5-12. Furthermore, Klang Valley UA programs respondents' level were found to be moderate (planning, implementation, evaluation, bonding, bridging, linking, social empowerment and economic empowerment). Addition to that, relationship between participation, social capital towards empowerment among respondents were found to be insignificant. Hence, resulting social capital (bonding, bridging and linking) do not have moderator function on participation to empowerment.

This study has three main contributions. First, it contributes to the body of knowledge as there are not many studies conducted in the field empowerment theory in the perspective of UA program. Second, it contributes to the practice by exploring factors might influence empowerment of UA program's respondents. Third, it contributes to the policy by assisting concern parties to establish policy to boost the efficiency of the program.

The instrument for this study was developed on the basis of literature review, adopt and adapt technique and subsequently improved through pilot test. Through multi-stage random sampling, total of 212 respondents were selected to represents 14 communities from seven districts namely Sri Muda, Batu Tiga, Semenyih, Dengkil, Templer, Kota Damansara, and Batu Caves. The data collection employed a structured self-administered questionnaire through a survey method. The collected data were analyzed using selected analysis procedure through SPSS software and PLS-SEM.

Referring to the results, the researcher found that level of social capital, participation and empowerment dimension of UA program's respondents were at moderate level. For the direct relationship, social capital and participation indicated non-significant relationship with empowerment. On top of that, the interaction between participation and social capital was found to be insignificant to the empowerment.

This study put forward numbers of recommendation. Firstly, is to empower the role of community leaders; secondly, to conduct courses and workshop and thirdly; to empower agriculture extension officers. Several recommendations for future studies were discussed. First, other new variable should be examined and future research will consider using qualitative methods to conduct in-depth discussions in order to identify any additional variables with the potential to influence empowerment of UA program's respondents. Secondly, future studies should consider in looking factors effecting of weak networking social capital, and the aspects of strengthening participation of UA program's respondents. Thirdly, other possible factors that possibly influence the empowerment of UA program's respondents should be investigate. It is anticipated that findings can be used as a basis for the future research related to UA program in Malaysia.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**PENDAYAUPAYAAN PESERTA PROGRAM PERTANIAN BANDAR DI
KAWASAN LEMBAH KLANG**

Oleh

NUR SHUHAMIN BINTI NAZURI

Jun 2021

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Di Malaysia, inisiatif program pertanian bandar telah menyatupadukan masyarakat tempatan melalui penanaman makanan sendiri di kawasan yang ditetapkan serta memperkasakan masyarakat (Bernama, 2020). Menurut Strzelecka et al. (2017) penyertaan adalah penting dalam memperkasakan pemerksaan komuniti. Walau bagaimanapun, kekurangan penyertaan dalam kalangan komuniti pertanian bandar menyebabkan pelaburan dan inisiatif kerajaan seperti sebuah pembaziran.

Kajian ini bertujuan untuk mengenalpasti dimensi tahap penyertaan (perancangan, pelaksanaan dan penilaian) dalam kalangan peserta program pertanian bandar terhadap pendayaupayaan ekonomi serta sosial. Di sini modal sosial berfungsi sebagai ikatan, perapatan jurang serta perhubungan jurang. Terdapat lima objektif kajian ini iaitu: 1) Menggambarkan ciri sosio-demografi peserta program pertanian bandar (UA); 2) Menentukan tahap penyertaan, modal sosial dan pendayaupayaan peserta program pertanian bandar (UA); 3) Menyiasat hubungan antara penyertaan dan pendayaupayaan peserta program pertanian bandar (UA); 4) Mengkaji hubungan antara modal sosial dan pendayaupayaan peserta program pertanian bandar (UA); 5) Menentukan peranan modal sosial sebagai moderator dalam perkaitan hubungan di antara penyertaan dan pendayaupayaan peserta program pertanian bandar (UA).

Majoriti responden yang terlibat dalam kajian ini adalah lelaki berkahwin dan berumur di antara 41-60 tahun serta berlatarbelakangkan pendidikan menengah/vokasional. Kebanyakan mereka juga bekerja sendiri atau pesara yang mempunyai 5 hingga 12 orang ahli keluarga. Tahap pemahaman responden terhadap program UA di Lembah Klang adalah sederhana (perancangan, pelaksanaan, penilaian, perapatan, perantara, penghubung, pendayaupayaan sosial dan pendayaupayaan ekonomi. Selain itu, hubungan antara penyertaan, modal sosial terhadap pemerksaan dalam kalangan

responden didapati tidak ketara. Oleh itu, modal sosial yang terhasil (ikatan, penyatuan dan penghubung) tidak mempunyai fungsi penyederhana dalam penyertaan kepada pendayaupayaan.

Kajian ini mempunyai tiga sumbangan utama. Pertama, ia menyumbang kepada korpus ilmu dalam teori pendayaupayaan berpandukan perspektif program pertanian bandar (UA) kerana kekurangan kajian yang dilakukan. Kedua, sumbangan kepada praktikal dapat dilihat apabila kajian ini membantu dalam mengenalpasti faktor pendayaupayaan peserta program pertanian bandar. Ketiga, kajian ini menyumbang kepada polisi melalui kerjasama pelbagai pihak berkepentingan untuk membentuk polisi serta meningkatkan kecekapan program.

Instrumen kajian telah dibangunkan melalui pembacaan penyelidikan lepas, aplikasi teknik adaptasi daripada instrumen lepas serta diperkukuhkan dengan kajian rintis. Melalui teknik persampelan rawak pelbagai peringkat seramai 212 peserta program pertanian bandar telah dipilih untuk mewakili 14 komuniti daripada tujuh daerah iaitu Sri Muda, Batu Tiga, Semenyih, Dengkil, Templer, Kota Damansara, dan Batu Caves. Data telah dikumpulkan melalui borang soal selidik sendiri secara tinjauan serta dianalisa menggunakan perisian SPSS dan PLS-PLS SEM hasil kajian, penyelidik mendapati tahap modal sosial, penyertaan dan pendayaupayaan peserta program pertanian bandar masih berada pada tahap yang sederhana. Melalui hubungan dua hala, modal sosial dan penyertaan menunjukkan hubungan yang tidak signifikan kepada pendayaupayaan peserta program. Tambahan pula, interaksi antara penyertaan dan modal sosial didapati tidak signifikan terhadap pendayaupayaan.

Beberapa cadangan telah diutarakan dalam kajian ini. Pertama, peranan pemimpin komuniti harus diperkasakan. Kedua, sangat wajar untuk mengadakan kursus dan bengkel lanjutan manakala yang ketiga adalah memperkasakan peranan pegawai pengembangan pertanian. Di samping itu juga, beberapa cadangan untuk kajian masa akan datang dibincangkan. Pertama, pelbagai faktor lain harus dipertimbangkan dan penyelidik harus menumpukan kepada kaedah kualitatif melalui perbincangan mendalam bagi mengenal pasti pemboleh ubah tambahan yang berpotensi mempengaruhi pendayaupayaan peserta program pertanian bandar. Kedua, pelbagai faktor yang mempengaruhi kelemahan modal sosial serta aspek-aspek pengukuhan pelaksanaan penyertaan peserta program pertanian bandar harus diteliti. Ketiga, faktor-faktor tambahan yang mempengaruhi pendayaupayaan peserta program juga perlu diperhalusi. Penemuan kajian ini dijangkakan dapat menjadi rujukan untuk penyelidikan masa hadapan yang berkaitan dengan program pertanian bandar di Malaysia.

ACKNOWLEDGEMENT

First of all, Alhamdulillah, for his majesty and uncountable blessings for giving me an opportunity to take on this wonderful journey as another chapter in my life. I would like to express my deepest gratitude and thanks to my supervisor, Associate Professor Dr. Norbaya Ahmad including my supervisor committee Associate Professor Dr. Juwaidah Sharifuddin and Dr Mohd Roslan Rosnon for their constant support, persistent guidance and advice throughout my study. Their wide knowledge and point of view have provided a good basis for the present thesis.

I deeply acknowledge my friends, Ros, Abang Shah, Kak Wani and Dr Nik, and many more friends who always lend their ears to hear my problem and always give me a support to complete my work on time. Their present made me realize that I'm not alone in this journey.

Last but not least, I owe my loving thanks to my beloved parent Nazuri bin Kamis and Zainab binti Husin; and two sisters Along and Miza for their understanding, support, and encouragement. Without them, it was impossible for me to finish within the stipulated time.

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LIST OF ABBREVIATIONS

| | |
|-------|--|
| DOA | Department of Agriculture |
| ET | Empowerment Theory |
| MARDI | Malaysian Agricultural Development Institute |
| NGO | Non-Governmental Organizations |
| UA | Urban Agriculture |



CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter describes the background of analysis, identifies the statement of the problem, addresses research questions, and aligns with the objectives of the study as well as the research hypothesis. Similarly, the study explains the significance of the study, clarifies the context and limitations of the study, explains the conceptual and operational definition, and organizes the research framework.

1.2 Background of the study

Empowerment is the ability of individuals to gain control socially, politically, economically, and psychologically through (1) access of information, knowledge, and skills; (2) decision making; and (3) individual self-efficacy, community participation, and perceived control (Rappaport, 1987; Zimmerman & Rappaport, 1988). It is a process whereby the 'power' is developed, promoted, gained, shared, and facilitated by the individual(s) or group members in their social interaction through which they can exercise their capabilities to make, affect and bring about changes in the community, as the product of being empowered (Samah, Tengku Aizan & Ahmad Hariza, 2001). Empowerment refers to the development of understanding and influence over personal, social, economic, and political forces which have an impact on life situations. Empowerment provides opportunities for individual growth and access to decision-making processes (Schulz, Israel, Zimmerman & Checkoway, 1995). The concept of empowerment focuses on the potential possessed by each individual who has an ability for better self-improvement (Samah & Aref, 2009). Besides, empowerment aims in making people more self-reliant (Lely, 2013).

In this study, the researcher highlighted social and economic empowerment, which will be operationalized in operational definition later. Social empowerment refers to a process whereby people can have power, increased skills, knowledge, and the ability to make a choice that will in the end help them solve their problems and make life better (Ndaeji, Samah, Akingbade, Akinjinmi, Ezechukwu, Okerentugba, & Maleki, 2013). Meanwhile, economic empowerment refers to how far a community can enhance their economic status in terms of earnings, savings, and the rewards they reap by executing additional economic activity (Ani, Ramlan, Suhaimy, Jaes, Damin, Halim, & Ahmad, 2018). The form of social and economic empowerment is to meet the government's objectives in the UA program which are enhancing food security, providing environmentally-friendly food, educating and promoting healthy habits, building and empowering communities (Hashim, Jaafar, Md Noor, Mohamad & Jalali, 2020). The idea of empowerment emphasizes the changing influence of individuals, organizations, and communities to serve themselves rather than dependent on benevolent outsiders

(Gallant, Cohen & Wolff, 1985; Timothy, 2007). The number of studies on community empowerment has significantly increased over the last 20 years (De Vos, De Ceukelaire, Malaise, Pérez, Lefèvre & Van der Stuyft, 2009; Gibbon, Labonte, & Laverack, 2002; Melo & Alves, 2019). Most scholars view empowerment through women's community issues, health community programs, rural community programs, and the tourism context (Melo & Alves, 2019). Through empowerment, individuals are transformed into active agents acting by their values and interests, which lead to social and community empowerment (Miller & Campbell, 2006). According to Mohan & Stokke (2000), empowerment has been an essential concept in research, especially on community development. Community empowerment is seen as an intention to raise the dignity of the society which previously was weak or incapable to a better stage to free themselves from poverty and backwardness (Kelly & Vlaenderen, 1995; Lely, 2013). Besides, it is widely recognized as a vital prerequisite for sustainable community development (Mohan & Stokke, 2000).

Choi and Murray (2010) concluded that the success and sustainability of program growth could not be assured if the government fails to empower the community. Community empowerment is an essential concept in community development. Community empowerment is gradually adopted as a realistic approach that strengthens, builds capacity and efficiency, and contributes to improved community life (Melo & Alves, 2019). In consequence, they learn to decide and take action which eventually facilitates community development. In short, collective empowerment is a form of self-help effort towards bringing about community development change (Samah & Aref, 2009).

In Malaysia's context, there has been an increasing amount of literature on empowerment studies and mostly discussed on rural community empowerment, women empowerment, youth empowerment, and community tourism empowerment (Al-Shami, Razali, Majid, Rozelan & Rashid, 2016; Lyndon, Moorthy, Er & Selvadurai, 2015; Nikkhah & Ma'rof, 2009; Talib, Takim & Mohammad, 2018). A study by Al-Shami et al. (2016) in women empowerment revealed that participating in the microcredit program has enabled them to be actively involved in weekly meetings, and interact with one another. Besides, they obtain economic benefits such as participating in market activities, running their own business, and gaining access to income. Participating in the microcredit program has empowered them both in economic and social terms at the community level. Another study by Lyndon et al. (2015) reported that rural communities had empowered individuals through technical and marketing context in oil palm marketing after being controlled by MPOB agency through a top-down approach. In the long run, this social and economic empowerment could contribute to the realization of sustainable community development.

About five decades ago, community development was perceived as a program, process, method, and movement (Sanders, 1958). Over the years, the perspective of understanding community development has not changed very much. Until today, community development is generally seen as a process of providing a concerted effort to develop a community to improve social and economic well-being (Fendley & Christenson, 2009; Sail & Samah, 2010). However, the concept and approach of community development may be different based on location and situation. The concept

and approach of community development depend on location, culture community involved, social environment, and community needs (Sabran, 2003).

The most important is community development seeking to assist local communities to overcome the challenges they face through various forms of development programs and projects. Also accords with explanation by Hibbard and Tang (2004) which indicated that community development is process-oriented, and it requires extensive community participation and relies on the network to share resources, knowledge, and expertise. Effective community development programs involved several stakeholders, including the government, non-governmental organizations, the private sector, the local community, and the public in promoting sustainable community development it will be achieved, incredibly when the community is empowered (Ismail, Nor & Adnan, 2019). In Malaysia, community development cannot be separated from the influence of cultural identity; different cultural practices shape the form of development. The different cultural practices from one community to another reflect significant differences in patterns and features of community development (Ahmad, 2008). Therefore, a suitable approach should be implemented in a rural or urban area in Malaysia to obtain a maximum result of community empowerment.

Urbanization is characterized as a significant increase in people living in urban areas due to changes from rural areas (Tiraieyari & Hamzah, 2015). Recently, the study estimates that the growth of the world population is around 7 billion and will continue to exceed 9 billion by the mid-21st century. By the year 2050, it is expected that 60% of the global population will be urban citizens, and the remaining will be rural citizens. The most contribution is taking place in Asia (United Nations, 2017).

Currently, Malaysia, like other Asian countries, has experienced a rapid expansion of urbanization. The rapid process of urbanization and urban development has triggered high living costs, insufficient provision of food, and urban poverty (Mok, Gan & Sanyal, 2007; Othman, Latip & Ariffin, 2019; Siwar, Ahmed, Bashawir & Mia, 2016). Therefore, the tendency of the urban agriculture (UA) program has drawn various attentions as a response to urban poverty, food security, and sustainable development. The UA is an activity for food production or livestock growth by using products, services, land resources, and water located around that existing urban area (Islam and Siwar 2012; United Nations Development Program, 1996).

It is described as small areas within cities, such as vacant lots, gardens, verges, balconies, and containers that are used for growing crops for their consumption or selling purposes among their neighborhood (Poulsen, McNab, Clayton & Neff, 2015). The UA has been practiced by most developing countries such as India, Cuba, Vietnam Uganda, Ghana, and Kenya (Corbould, 2013) and is beneficial in promoting community development, food security, income opportunities, and economic growth (Frayne, McCordic & Shiloboleni, 2014). The UA plays a crucial role in community growth which promotes community empowerment.

Malaysia is also included as one of the developing countries practicing the UA as a critical strategy for improving food security (Tiraieyari & Hamzah, 2015). In Malaysia, the UA is widely named with various names such as "*pertanian bandar*" or "*kebun bandar*". The UA acts as a tool for sustainable development and provides food or services to entire places in urban areas. Generally, the UA is not a new concept in Malaysia. A similar concept of farming activities adopted by urban folks surrounding residential areas started a long time ago. National Agro-food Policy (NAFP) policy was introduced in 2011-2020 to overcome the issues of sustainable agriculture, land scarcity, climate change, human, environmental degradation, and provide highly nutritious and safe food. Thus, it is to ensure sufficient safe and quality food for the entire nation in Malaysia. Therefore, the UA views it as a way in which the livelihood strategies of urban residents can be addressed.

The Malaysian government has provided several UA awareness with the purpose of promoting the UA programs among urban dwellers. Along with that, diverse government institutes and organizations such as the Department of Agriculture (DOA), Malaysian Agriculture Research and Development Institute (MARDI), and Universiti Putra Malaysia are also a part of this movement. According to DOA (2019), there were three types of UA Programs in Malaysia namely individual, community, and institutional programs. Hence, in this study, the researcher attempts to focus on community programs initiated by the DOA. In accordance with DOA, a community in the urban and suburban area whose interested and capable to carried out the project could make an application and in order to form the group to run UA, the community should form a number of 33 participants that are voluntary or assigned by the leader.

The implementation of this program will include cooperation with municipal authorities, departments, and agencies (DOA, 2019) and it is expected to reduce program participants' kitchen expenses, improve community involvement and beneficial farming activity, and provide food security. Studies found numerous significant between UA and food securities. Was mentioned by Sani (2016) and Mat and Majid (2015) indicated that UA activities encourage households to plant crops while saving expenses on food, which at the same time is significantly related to ecology, health, sustainability, and food security. This finding is consistent with a study in Klang Valley by Rezai, Shamsudin & Mohamed (2016) who found the existing evidence of UA and its effectiveness on food providing among households. The study implied that UA played as a secured-on food shortage problem since it provides sufficient quantities of food, the cost-effectiveness of food supplies, and reduction of food bills. In fact, the UA activities encourage households to plant crops while saving expenses on foods, which at the same time are significantly related to the ecology, health, sustainability, and food security (Mat & Majid, 2015; Sani, 2016). Nevertheless, until today, lack of awareness and participation from the community regards to UA practices (Islam & Siwar, 2012; Kaur & Hitam, 2010).

The role of the community in the UA program is, therefore, essential for sustaining the program (Yusoff, Hussain & Tukiman, 2017). Community participation and social capital, for example, are essential elements in every community. Community participation is the beginning point of community empowerment (Cole, 2006). According to the World Health Organization (2002), community participation is defined as community involvement in community development activities and strategies via

physical actions taken by the neighborhood members in particular of the community area. Community participation also refers to focusing on changing the development of the community involved for a better future and improvement in the quality of life (Azlizan, Hamzah, Yahaya & Habibah, 2012). On the other hand, several scholars noted that community participation is an empowering process in which individuals or groups gained opportunities of sharing their ideas in the decision-making process, innovative planning, and development (Babaei Ahmad & Gill 2012; Brett, 2003; Burns, Cottrell, Perkins, Pack, Stanton, Hobbs & Hauschka, 2004; Panda, 2009). Besides, they get to interpret, understand, and automatically become aware of something from their views and express their opinions in accordance with the knowledge they have.

There is a claim of association between these two variables that involving participation has been widely used together with empowerment (Abbot, 1995). Some suggested that participation and empowerment are twin strategies to promote sustainable and people-centered development. Sofield (2003) believed that "empowerment of development program by communities is hard to accomplish without participation". Participation is a medium for empowerment to take place where people in a group engage in decision making and implementing the program learn together, develop their confidence, skills and subsequently contribute to their development plans (Ndaaji & Samah, 2013; Yong & Hassan, 2019).

Previous participation studies on rural, health, women, and entrepreneurs' program have been well documented (Haldane, Chuah, Srivastava, Singh, Koh, Seng & Legido-Quigley, 2019; Lyndon et al., 2011; Ndaaji et al., 2013; Samah & Aref, 2009; Yong and Hassan, 2019). However, on researcher reading, studies have rarely pointed out the UA participation in a community program. This research is focusing on an urban program which is the UA program and is a useful tool for empowerment of the urban community. A program involving the activity of production, consumption, processing, and marketing which includes social and economic vitality for community development program (Ayob, Yaakob & Muhamad, 2019). According to Lyndon et al. (2011), community participation usually has several elements such as planning, implementation, and evaluation. It is essential to community participation that the members of the community should discuss, consult and reach consensus among them about any program so that all members could gain benefit and as a result enhance their quality of life.

On the other hand, social capital also is the primary notion that has been introduced a long time ago in a community development program (Tirmizi, 2005). Social capital is defined as the social networks of individuals or groups and their willingness to support each other (Putnam, 2000). Social capital has generally recognized positive consequences on economic and social development in recent literature (Abdul-Hakim, Abdul-Razak & Ismail, 2010). Nevertheless, social capital was proposed as one of the possible factors to explain how the performance of development differs between communities (Abdul-Hakim et al., 2010). Previous studies emphasized that social capital becomes an essential source in establishing a community (Diacon & Guimaraes, 2003; George, 2008). It offers community members an ample opportunity to access external resources while promoting the dissemination of information by creating a network (Bridger & Alter, 2006). Mignone and O'Neil (2005) identified three dimensions of social capital that are particularly relevant to communities; bonding, bridging, and

linking. Therefore, the researcher emphasized the role of social capital within bonding, bridging, and linking approaches to the empowerment of the UA program.

The concept of bonding and bridging emerged from Putnam (2000), who stated that the distinction between bonding and bridging is the most significant among all dimensions of social capital. Bonding refers to the inward-looking social ties that reinforce and strengthen group identity (Putnam, 2000). Meanwhile, bridging social capital is the ability of a community to communicate with other communities outside their circle (Dale & Newman, 2010). The elements are essential for the community as it brings them closer to the external network of communities and gives a positive impact on them (Coffé & Geys, 2007). For linking social capital, it refers to relationships between people who are interacting across explicit, formal, or institutionalized power or authority gradients in society (Szreter & Woolcock, 2004).

Linking social capital may include civil society organizations, non-governmental organizations, volunteer groups, government agencies (service providers), public and private sector representatives (Grant, 2001). Besides, Woolcock and Narayan (2000) pointed out that communities or organizations alone do not possess all the resources for change. Therefore, these communities need to be linked and synergized. The above review showed that social capital is a relational resource within and between a community that can be cultivated, mobilized, and transformed for the well-being of a community.

1.3 Statement of problem

By the year 2020, the urban population in Malaysia was expected to grow by 75% due to the migration of people into the cities (Masron, Ahmad & Rahim, 2012). These have led to food insecurity, urban poverty, and jobless citizens (Siwar et al., 2016; Mok et al., 2007). The living costs of the urban dwellers increased particularly due to rising costs of food production, processing, and distribution. Hence, to satisfy the quantity and diversity of food demand by population, Malaysia hinges on imported food. The cost of imported food rose from RM 8.97 billion in 2012 to RM 17 billion in 2014 (MITI, 2014). UA serves as an efficient way to ensure sufficient food, adequate nutrient, and minimized food bills (Matteson & Langellotto, 2009).

In recent years, UA has increasingly involved wealthier households and has shifted in focus from household consumption to commercial sale. The practice of UA has traditionally been associated with rural migrants and has consequently been interpreted as a mechanism for survival and a means to reduce household vulnerability to economic fluctuations, to pay rent, school or medical expenses, and to increase food security brought on by fiscal constraints, structural adjustment and governmental policy (Briggs and Mwamfupe, 1999). Urban cultivators provide almost all of the leafy greens sold in Accra (Ghana), Dakar (Senegal), and Kinshasa (Democratic Republic of the Congo) and use this income to live in the city (FAO, 2012). In Cape Town (South Africa), UA was also found to both supplement the food budget and generate income (Kirkland, 2008). One sees over time how cultivators form groups and develop networks of trust through

sharing knowledge, produce, meals, and even money (Jacobs, 2009). Hence, participation in food justice movements encourages the development of strong civic virtues and critical perspectives along with the necessary experience for shaping policy makers' decisions. Food justice activism has been found to have the ability to increase the confidence, political efficacy, knowledge, and skills of those involved. This has been evident in the case of The Stop Community Food Centre's (The Stop) Urban Agriculture program in Toronto and shows how participation in food-based, grassroots organizations can foster transformative adult learning (Levkoe, 2006).

UA has empowered the community in New York (Cohen & Reynolds, 2014) and Michigan State (Draper & Freedman, 2010). It has provided a social space for individuals to join together, community organizing often results through the interactions. The social interaction/cultivation of relationships and community organizing and empowerment opportunities available through a community garden environment are particularly meaningful (Draper & Freedman, 2010). To simplify it, community empowerment refers to the process of enabling communities to increase control over their lives. Hence, with multiple positive effects of UA on household's income, mechanism of survival, and contributes to the livelihood strategies of the urban poor, Malaysia is not going to be left behind in improving the living standards of the people. Recognizing the positive impact of UA, led to the development of policies and initiatives that seek to encourage Malaysians to get involved in this activity by establishing several initiatives and policies to promote the UA program.

It is, therefore, the UA program has been introduced under the authority of the Department of Agriculture (DOA) since 2010 with the name "*pertanian bandar*". The purpose of this program is to help urban communities to reduce their cost of living through the production of their own food to meet their daily needs and as an additional income for urban communities through the sale of surplus produce (DOA, 2019). This is equivalent with National Agro-food Policy (NAFP) 2011-2020 which highlight addressing food security and safety to ensure availability, affordability, and accessibility; in order to ensure the competitiveness and sustainability of the agro-food industry; and to increase the income level of agropreneurs in order to fit urban requirements and enhanced with modern technologies.

Moreover, this initiative comprehends with Sustainable Development Goal (SDG) who has been set up in 2015 by the United Nations General Assembly and is intended to be achieved by the year 2030. The SDGs replace the Millennium Development Goals (MDGs), act as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The objective was to produce a set of universal goals that meet the urgent environmental, political, and economic challenges facing our world. The Sustainable Development Goals (SDGs) or Global Goals have 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all" (United Nations, 2017). Implementation of UA in Malaysia related to SDG goals 1 and 2 which are to eradicate poverty and end hunger. In line with SDG's objective, the potential of UA in alleviating poverty cannot be exaggerated as it serves as a tool for sustainable food production with greater benefits for the farmers and community. SDG 1 aims to end poverty in all its forms everywhere. The goal has seven targets and 13 indicators to measure progress. The two targets related

to "means of achieving" SDG 1 are mobilization of resources to end poverty; and the establishment of poverty eradication policy frameworks at all levels (Ritchie, Roser, Mispay & Ortiz-Ospina, 2018). Meanwhile, SDG 2 is to "End hunger, achieve food security and improved nutrition, and promote sustainable agriculture" Their targets are ending hunger and improving access to food; ending all forms of malnutrition; agricultural productivity; sustainable food production systems, and resilient agricultural practices (United Nations, 2017).

Multiple previous studies have revealed that active participation among UA programs' participants is vividly essential to building a strong and vibrant community, creating a sense of partnerships, enhancing community cohesion (Yusof et al., 2017), and strengthening the ties between communities (Nemore, 2015; Sharp, Imerman & Peters, 2002). The success of the UA program is dependent on continuous community participation in the implementation of the UA program (Yusof et al., 2017). UA's value is not simply its contribution to basic food security, but also the sense of pride that comes from using one's land productively (Hovorka, 2006). In addition, there are various social benefits associated with being involved in UA that enhance the livelihood strategies of poor households (Battersby & Marshak, 2013; Davies, Hannah, Guido, Zimmer, McCann, Battersby, & Evans, 2021). In essence, social capital refers to the ability "to secure benefits by virtue of membership in social networks" (Portes 1998; Cofré-Bravo, Klerkx, & Engler, 2019) and is an important element of sustainable livelihoods, as it can unlock economic, human, and other capitals (Emery & Flora, 2006; Carolan, 2016). Cultivators develop social capital when they share land, work together and donate portions of their harvest to neighbors. This social capital increases their access to food and other resources (Gallaher, Kerr, Njenga, Karanja, & WinklerPrins, 2013; Poulsen et al., 2015). At a macro-scale, cultivators who group together are more able to make their needs known to the local government (Asomani-Boateng, 2002; Mackay, 2018). For low-income households, livelihood resilience relates to the portfolio of capitals to which the household has access (Chambers & Conway, 1992). "Capital" in the sustainable livelihood's framework refers not only to the strict economic definition of "the product of investment which yields a flow of benefits over time" (Department for International Development, 1999) but indicates livelihood "building blocks" that collectively contribute towards resilience (Farrington, Carney, Ashley & Turton, 1999). Constructing a portfolio of capitals that includes access to natural, physical, human and social capital, in addition to financial capital, is vital for low-income households to build a resilient livelihood (Farrington et al., 1999). Thus, low-income households typically draw on multiple strategies and incomes, such as casual labor, state grants, and urban agriculture (Rakodi, 2002), as well as neighbors, friends, and family, to survive (Getz, 2008). However, attracting urban communities to participate in the program has become the key challenge for local authorities (Ramalingam, Sharifuddin, Ali & Mohamed, 2018). Figure 1.1 showed from the past 4 years, the participation of the city communities had shown an increasing trend. It had increased significantly in 2014 when the government intensified the program with new incentives that included financial aids and subsidies. Nevertheless, the graph showed a fluctuation in the number of urban farming participation from 2015-2018. From the reported data, the fluctuation pattern manifests the probability of declining the number of participants in the UA program in five to ten years in the future. This is probably due to the factors of location, food production, technologies, and community engagement (Othman et al., 2019). This is however supported that lack of public participation in UA activities is challenging in sustaining urban farming participants' interest (Othman, Latip, Ariffin & Mohamed, 2017). As

mentioned by Strzelecka, Boley and Woosnam (2017) participation is important in strengthening community empowerment and it has a great potential to also improve socio-economic conditions of the community (Martin & Traissac, 2012) which leads to sustainability of the development program (Lyndon, Razak, Azima, Junaidi & Sivapalan, 2015).

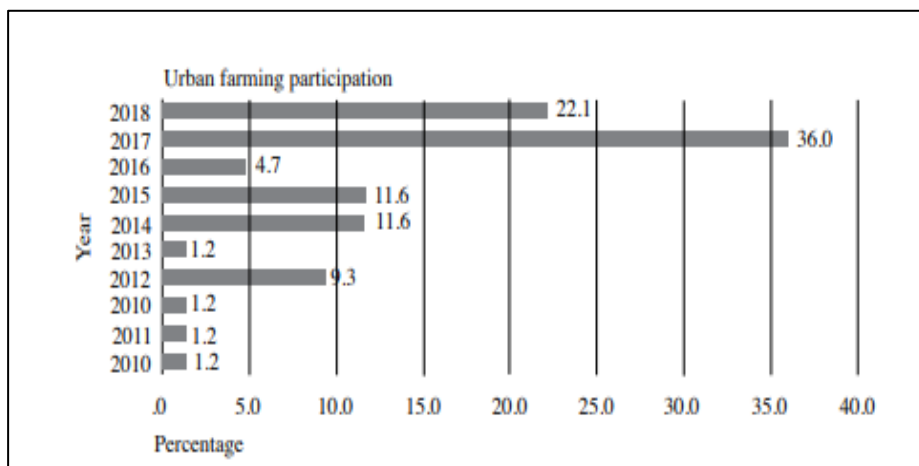


Figure 1.1: Percentage of participation in the UA community program

The role of the community is very crucial in the implementation of UA programs (Yusoff, Hussain & Tukiman, 2017). Hence, the focus of the study is to explore whether participation and social capital among UA community programs influenced the empowerment of the community. The justification for the need to investigate if participation and social capital can affect social empowerment is due to the nature of the UA programs which is voluntary in nature and to ensure sustainability in the program, therefore, there is a need to look into social empowerment of the participants who are in the program. The assumption is that if participants are empowered and reaping the benefits of their participation, there is a high chance of the programs attracting more participation from the residents. However, there is also a need to look into the social capital of the residents considering that the study will be investigating the interaction patterns of urban residents where the level of social capital is known to be low. Social capital was used in many community studies related to community programs such as indigenous group (Zal, Ma'Rof & Hamsan, 2013); squatter settlement (Babaei, Ahmad & Gill, 2012); health program (Shan, Muhajarine, Loptson & Jeffery, 2012); rural community (Abdul-Hakim et al., 2010; Sheikh, Redzuan, Samah & Ahmad, 2015) but not in UA community. Previous studies were done by Babaei et al. (2012), Shan et al. (2012), and Zal et al. (2013) also have looked into social capital in other communities and claimed that social capital is an important determinant of community empowerment.

In the context of this study, if the problem of empowerment among the community cannot be ascertained, certainly the UA program cannot be sustained. Therefore, how do we empower the community to ensure the sustainability of the program? Furthermore, all the investments and initiatives done by the government will go to waste if the

communities who participated in the program is still not empowered, thus may affect the sustainability of the program in the long run. While many studies have looked at the direct relationship between participation, social capital, and empowerment respectively, can social capital moderate the relationship between participation and empowerment? The assumption is that, if low level of participation contributes to low level of empowerment, social capital can moderate the relationship between participation and empowerment. Therefore, this study would like to determine whether social capital is also important in moderating the relationship between participation and empowerment. Lack of participation among the UA community has driven this study to examine whether their factor of participation influenced the community empowerment and the interference of social capital in moderating the relationship between participation and empowerment.

1.4 Research Questions

- 1) Does participation level influence the empowerment of the UA program's respondents?
- 2) Does social capital influence the empowerment of the UA program's respondents?
- 3) Does social capital moderates the relationship between participation and empowerment of the UA program's respondents?

1.5 The main objective of the study

The main objective of this study is to explore the role of participation and social capital in empowering the UA community program's respondents in Klang Valley.

1.6 Specific objectives

- 1) To describe the socio-demographic characteristics of the UA program's respondents and background of UA activities.
- 2) To determine the level of participation, social capital, and empowerment of the UA program's respondents.
- 3) To investigate the relationship between participation and empowerment of the UA program's respondents
- 4) To investigate the relationship between social capital and empowerment of the UA program's respondents
- 5) To determine the moderating effect of social capital in the relationship between participation and empowerment of the UA program's respondents.

1.7 Research Hypothesis

The research hypothesis was developed based on this study's statement of problem and objective. The research hypotheses are as follow:

H₁= Participation will increase the empowerment of the UA program's respondents.

H₂= Social capital will increase the empowerment of the UA program's respondents.

H₃=Social capital will moderate the relationship between participation and empowerment of the UA program's respondents.

1.8 Significance of the study

Theoretically, this work will contribute to scientific knowledge and strengthen studies on the relationship of participation expected to have the impact on empowerment independently, where their effect is designed to be moderated by the social capital of the UA community program's respondents. The results can also be beneficial for stakeholders such as government agencies, non-government organizations, politicians, and scholars in enhancing and developing strategies for raising community participation, social capital, and empowerment level in any community development program.

1.9 Scope of the study

This study focuses on the UA community in the Klang Valley area. The objective of the study is to explore the level of participation among the UA program's respondents and how the social capital dimension moderates the relationship between participation and empowerment of participants in the community program initiated by the Department of Agriculture. In this research, Klang Valley has become a targeted research location. The location area is in Malaysia, which is centered in Kuala Lumpur with its adjoining cities and towns in the state of Selangor. The area consists of Kuala Lumpur, and Putrajaya with the suburbs naturally delineated by hilly areas and the Port Klang coastline, and the estimated population in the area is about 7.2 million in 2016 (World Population Review, 2018).

The target sample is from the UA community program's participants organized by DOA. Although the participation among the UA community still does not hit the target, however, to have a study of the role of community that might affect the community empowerment in the program is essential. Stakeholders will inform the areas of concern to be discussed and help develop initiatives to promote and enhance participation in the UA program. A quantitative approach and PLS-SEM analysis were employed to analyze and describe the results.

1.10 Limitations of the study

The study has several limitations to be considered. The limitations of the study are the selection of the respondents, selection of variables, and self-reported data. The first limitation of the study relies on the selection of the respondents. The study only includes the UA program's participants under the authority of the DOA in the Klang Valley area. The findings do not reflect the UA program's participants from other areas or different authorities. The findings might be enriched and produce different results if the UA program participants are from different areas or authorities are included.

Secondly, this study only includes selected independent and moderating variables. Although several factors have been associated with the empowerment of the program's participants, the present study limits its independent variable to participation factors with three dimensions namely planning, implementation and evaluation, and social capital with the dimension of bonding, bridging, and linking as moderating factor. Thirdly, this study only focused on self-reported data, and this type of data has disadvantages such as an inaccurate answer (Hoskin, 2012). Besides, self-reported data might be influenced by the respondents' biased feelings during the data collection process (Hoskin, 2012).

1.11 Conceptual and Operational Definitions

In this part, several definitions of the critical term used in this study were provided.

1.11.1 Participation

Conceptual definition

Cohen and Uphoff (1977), in their early definition, described participation as people's participation in decision making, implementation, profit sharing, and evaluation in community development. As such, this study employed Cohen and Uphoff's (1980) idea to develop the conceptual framework in which he addresses participation encompasses participants' planning, implementation, and evaluation in the project. Thus, in the UA program in Klang Valley, the majority of the participants are involved in project planning, implementation, and evaluation process.

Operational definition

In this research, participation is defined as a collaborative effort among the UA program's respondents in the project planning, implementation, and evaluation. These three domains were adopted from Rilwanu (2014) to measure the stages of participation among the UA program's respondents in Klang Valley.

Planning process

The planning process is the first step of participation among the UA program's respondents. The process consists of assembling, formulating ideas, and making a decision in order to achieve a clear objective of the comprehensive plan. Participation in planning was measured using five items with 5 points Likert scale adapted from Rilwanu (2014).

Implementation process

The implementation process refers to the ability of the UA program's respondents to transform the chosen strategy into an action to accomplish the objectives of the UA program. This phase, it comprises of skills, ability, knowledge, and experience of the UA program's respondents to improve and achieve maximum benefits of the program. This study measured this by using five-point Likert scales with six items.

Evaluation process

This process is defined as the aptitude of the UA program's respondents to evaluate the planned tasks during the implementation and assessment of the objective, whether it is achieved or not. Participation in the evaluation was measured using a five-point Likert-scales with four items.

1.11.2 Social capital

Conceptual definition

Social capital is the potential of individuals to communicate with other people within or outside the group. Social capital is essential and will influence individual and group productivity Putnam (2000). There are three distinct social capital dimensions, namely bonding, bridging, and linking. Bonding social capital is described as people in the homogenous group who have a strong, dense ties relationship and know each other well such as family, close friends, and neighbors (Putnam, 1992). Meanwhile, bridging social capital refers to a relationship with outsiders such as colleagues, workmates, or other communities (Woolcock, 2002). On the other hand, linking social capital includes a relationship between groups or people with the authority gradient in the society such as government or non-governmental agencies or influential persons from other localities (Sheikh et al., 2015).

Operational definition

For this study, social capital is related to the bonding, bridging, and linking social capital of the UA program's respondents in Klang Valley. Bonding social capital refers to a close relationship among the UA program's respondents in the community. Bridging social capital describes the heterogeneous group that interacts with each other to achieve the

same objective. While linking social capital includes social interaction among program's respondents with government officers and non-governmental organizations.

Bonding

In this study, they were bonding social capital defined as strong social engagement among the UA program's respondents in terms of social interaction, norms, trust, and expectation within the community. Bonding social capital dimensions consist of five items adapted from Ibrahim (2016).

Bridging

Bridging social capital is described as a network of the UA program's respondents with other UA communities to look for support and develop their UA practices. The bridging social capital comprises five items adapted from Ibrahim (2016).

Linking

Based on this study, linking includes a relationship between the UA program's respondents and formal support system from authority organizations such as government and non-governmental organizations which can assist them to develop their agriculture skills. The dimension consists of 5 items adapted from Ibrahim (2016).

1.11.3 Empowerment

Conceptual definition

Empowerment had been defined as an ability of an individual to gain control socially, politically, economically, and psychologically through access to information, knowledge, and skills; decision making; individual self-efficacy, community participation, and perceived control (Zimmerman and Rappaport, 1988). Empowerment is well described as individual strengths and capacity for social change and policy (Raeburn, 1993). In general, empowerment is a process of individuals, groups, and organizations that lack an equal share of power to have full access to authority or influence in improving their strength and quality of life in citizens, institutions, or society (Zimmerman, 2000).

Within the social empowerment scope, includes a community's efforts to improve quality of life, recognizes community challenges, and facilitates citizen engagement in a program (Wallerstein, 2006). Indeed, their engagement could strengthen their skills and abilities to meet the respective goals and achieve the greater impact together, rather they could have alone. Meanwhile, in the economic empowerment context, it is described as the community's capability to be self-reliant from the economic aspect (Basargekar, 2009), increase their income and standard of living (Phillips & Pittman, 2009).

Operational definition

In this study, empowerment has two dimensions, namely social empowerment, and economic empowerment. Social empowerment is defined as the ability of participants to gain control over their lives by developing new skills, generating new knowledge, and enhancing capability throughout the UA program. Nine items were designed to measure social empowerment as a reference to Ndaej (2014) and Rezai, Shamsudin and Kit Teng (2014) with 5 points Likert scale. Whereas, economic empowerment describes as participants' ability to reduce their food expenditure on daily fresh food consumption besides generating income by selling the fresh surplus products from the gardens to their neighborhood. Six items were designed to measure economic empowerment as a reference to Ndaej (2014) and Rezai et al., (2014) with 5 points Likert scale.

1.11.4 Community

Conceptual definition

Community refers to a unit, initiated by a group of people, emphasized by public participation, and is aimed with a self-help approach (Cook, 1994).

Operational definition

In this research, the UA program's respondents authorized by the Department of Agriculture in the Klang Valley area were particularly assumed as the community.

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