

The Interactive Effect of Age and Education on Bonding Social Capital towards Empowerment of Urban Agriculture Communities in Klang Valley, Malaysia

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Abstract

Malaysian government has initiated the Urban Agriculture (UA) program for urban communities since 2006 in an effort to encourage people producing variety of staple food that provides a high-quality, nutritious diet for their own consumption. With the rapid urbanization that is going on in Malaysia, many urban communities need the UA program as a solution to overpriced groceries and expensive food. However, empowering communities through this program is vividly challenging. Hence, this study look at age and education level to find the correct requirements of remunerative and sustainable program. This study utilized a quantitative approach and multi-stage random sampling on 212 UA program community members in Klang Valley. The results show that a majority of respondents possess high levels of bonding social capital and social empowerment. It was revealed that bonding social capital is highly correlated with social empowerment. The interaction analysis suggests that age and education level significantly moderate the relationship between bonding social capital and social empowerment. It signifies that those of young age and high-level education have a more significant impact on the relationship. The findings offer valuable insights for targeted programs promoting social empowerment, considering different age groups and educational backgrounds to achieve positive outcome.

Keywords: Urban Agriculture, Bonding, Social Empowerment, Social Capital, Community Development

Introduction

Urban Agriculture (UA) is described as small areas within cities such as vacant lots, gardens, verges, balconies, and containers used for growing crops for people's consumption or sale in neighborhood markets (Poulsen et al., 2015). 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 et al., 2014). By the year 2020, the amount of urban population in Malaysia is expected to grow to 75% due to the migration of rural youth to cities (Masron et al., 2012; Rezai et al., 2014). Urban residents face increasing living costs, mainly due to the rising cost of food production, processing, and distribution.

The United Nations member states had fostered a debate in 2015, which resulted in the identification of the Sustainable Development Goals (SDGs) as a call to action to end poverty, protect the planet and warrant that all people enjoy peace and prosperity by 2030. Undoubtedly, UA has provided urban dwellers with an adequate, nutritious, safe, acceptable, and cost-effective food supply. In parallel with SDGs' objective 2, which aims to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture," it is undeniable that UA should be recognized as a solution to the issue of food insecurity. Therefore, in order to enhance regional development and the achievement of SDGs alongside the government's efforts, the UA program has been carried out to ensure food quality and security for urban communities, the practice of sustainable food production systems, and the implementation of resilient agricultural practices that increase productivity and production. Building on the idea, Malaysia, one of the developing countries facing an increasing number of urban dwellers, has implemented several initiatives and strategies to benefit from UA activities. The local authorities have developed UA programs through Local Agenda 21, which works to promote sustainable development by creating and strengthening involvement between local authorities, communities, and organizations (i.e., Department of Agriculture (DOA), Malaysian Agriculture Research and Development Institute (MARDI) and Universiti Putra Malaysia (UPM) (Othman et al., 2019). The merit of a program such as this can be achieved if the government and several private agencies (linking social capital) work hand-in-hand and cooperate with the purpose of program development (Bebbington & Carroll, 2000). Admittedly, linking social capital may also cause the need to mobilize external resources, but at times, strong cohesion among the community must be achieved. With the decentralization of social programs, administrative responsibility is transferred from the federal level to the state and local levels of government. Therefore, neighborhoods may be increasingly called upon to take collective action amongst themselves. The presence of inconsistencies has driven people to query how to empower communities collectively through the mobilization of bonding social capital that is equally important as linking with social capital. Having said that, the implementation of UA can partially succeed with the government's involvement and several private agencies. Yet, without active bonding within the community, UA might not be able to sustain itself. As mentioned by Rezai et al (2016), UA can contribute to food security, reduce food expenditure, and provide direct access to a variety of food products. However, if the bonding amongst communities cannot be enhanced, the UA program certainly cannot be sustained. Therefore, how can communities be empowered to ensure the long-term viability of the program?. Given the impact of UA on urban food security, exploring the extent to which bonding social capital with the existence of age and education factors affect empowerment amongst communities is particularly needed. This is by assuming that the role of community is crucial in the implementation of UA activities (Yusoff et al., 2017).

Importance of Bonding in Community

Putnam (2000) referred to social capital as the relationship between individuals that form social networks, norms of reciprocity, and trustworthiness that help one another. Previously, Putnam also mentioned that the concept of social capital allows participants to work together to achieve collective actions and goals, consequently benefitting individual and group productivity (Putnam, 1996). He highlighted that more social capital would produce outcomes and benefits as more people are working together. He also specified that social capital is significant for stability, economic prosperity, and the effectiveness of government programs. Bonding social capital is described as people in a homogenous group or community who express strong ties or relationships with each other. The elements of trust, understanding, and solidarity among individuals of the group are factors that enrich the group's development in reaching their full potential (Putnam, 1993). Bonding social capital can also be defined as a robust and dense relationship between an individual and others close to each other such as family members, neighbours, close friends, and members in a small group (Putnam, 2013). This is parallel with the UA concept in Malaysia, which is practiced in a small-scale setting. The particular reason for tackling (bonding) social capital is that it has a crucial element that can benefit small communities by developing mutual trust and facilitation of collaborative action between members, eventually empowering the community through agriculture programs.

Empowering UA Community through Bonding

The concepts of empowerment and social capital have significantly infiltrated the debate on development over the past several decades, as shown by several studies which have explored the factors contributing to the existence of relationships between the social capital dimension and empowerment in community development programs (Babaei et al., 2012; Sheikh et al., 2015). Bonding social capital has been deemed necessary in terms of community action. High levels of cohesion among urban communities (bonding social capital) can act as a success factor. For instance, Temkin and Rohe (1998) found that when bonding social capital is present, residents are more committed to the community and have a greater ability to act collectively on its behalf. Certainly, social ties among neighborhood residents, often referred to as "bonding social capital," contribute to the likelihood that individuals will move beyond their diverse self-interests toward mutually beneficial collective action. Likewise, Boardman and Robert (2000) found that the neighborhood effect of higher socioeconomic status increases the probability for collective action above and beyond the impact of individual socioeconomic status.

To add weight to this study, within the context of UA, social capital has been regularly related to the extension of agriculture, i.e., the Department of Agriculture (DOA), which provides input such as seeds, fertilizers, and tools as well as advisory services, workshops and seminars to educate participants on knowledge and skills to cope with problems faced in farming/gardening. Therefore, bonding social capital is important to drive the success and sustainability of UA programs as it provides a high density of social interactions between members, i.e., individuals interrelated through the network since they acknowledge and frequently interact with each other.

As previously defined, bonding social capital refers to connections to people with shared demographic characteristics such as family, relatives, and kinship. It is cooperation resulting from relationships within a homogeneous group (Woolcock & Sweetser, 2002). Bonding social capital is capable of helping people to 'get by' and sets expectations and credibility that will catalyse collective action. In addition, individuals with high bonding social capital are highly

motivated by any community activity and benefit collectively from interactions with external agents that lead to program sustainability. Various past studies have accentuated that social capital is regularly connected to public health campaigns or women empowerment programs. According to Nikkhah (2018), women empowerment programs have contributed significantly to women's social empowerment in Shiraz, Iran. A previous study by Zimmerman (1995) claimed that for health educators and others engaged in community-based approaches to foster individual and collective change, gaining an understanding of factors correlated to empowerment is important. This is consistent with Smedley and Syme's (2000) finding that social capital can be positively influenced by public health campaigns that attempt to intensify the capacity of adults to think and behave in ways that will benefit the health of youths.

The UA program has been developed locally in an attempt to resolve food insecurities within the urban communities to combat the prevalence of urban poverty. Undoubtedly, it is necessary to understand whether there is a significant relationship between social capital and empowerment to ascertain the empowerment needed to ensure the program's sustainability. Malaysia's UA program was introduced in 2006 as the Green Earth Program, encouraging individual households to produce their own food around their house compound by introducing the concept of 'kitchen garden' or 'edible landscape.' Its success led the government to continue its efforts with the 'Urban Agriculture' program within urban communities with the Department of Agriculture (DOA) guidance. The government has aimed to create 20,000 UA communities around the country by the end of the year 2020. However, the program's sustainability showed a decline starting in 2016 due to factors of location, food production, technologies, and community engagement (Othman et al., 2019). Thus, there is the need to understand which dimensions of social capital predict empowerment affect the UA program as participation has declined over the years yet continues to be a success in other countries. Previous studies have emphasized more on individual intention (Tiraieyari et al., 2017), volunteer satisfaction (Ramalingam et al., 2018), and community motivations (Othman et al., 2019) to sustain UA programs. It was found that the program's effectiveness is influenced by society involvement due to high motivation, intention, and satisfaction towards the program. As a different approach from previous research, this paper emphasizes the role of community involvement in UA programs. This study aims to determine the impact of the social capital dimension in terms of bonding approach towards the empowerment of UA programs. Othman et al (2019) mentioned that social interaction between community members is crucial to sustaining involvement in UA. Considering that numerous studies on social empowerment have mainly been on women empowerment or health programs, the researchers attempt to determine the impact of the social capital dimension in terms of bonding on the empowerment of UA programs. Consistent with Claridge's (2018) study, this study also focuses on social capital as a useful social role that fosters support and collective action.

Previous research has suggested that variables such as education and age intensely contribute to empowerment (Grown et al., 2005; Nikkhah & Redzuan, 2010; Geidam et al., 2012; Rilwanu, 2014). The rationality for age and education level to be selected as moderating effects in the relationship between social empowerment and social capital in a community is based on several arguments which revealed that education level and age are the most influencing factors towards empowerment. Nikkhah and Redzuan (2010) mentioned that education is the most important determinant of empowerment in community development processes. The argument here is not whether high bonding social capital automatically results in high empowerment in the community. Instead, receiving tremendous external support and

linkages may enable a community to manage and run a UA program successfully, yet there is the need to expose and discern the idea as to what extent bonding within the community with the existence of age and education needs to be achieved to empower communities through the UA program successfully.

Impact of Age towards Empowerment

Previous studies by Nasrabadi (2012); Rilwanu (2014) highlighted that the age factor does not influence participants' empowerment, i.e., denoting that there is no significant impact of age on participants' empowerment. This contradicts several other literatures which identified the effect of cohesion Kingston et al (2009) and decision-making Wong et al (2010) amongst communities that entrust multi-age participation. Those of young age seem much more empowered in community programs compared to the elderly. Youths' involvement in the development of agency, empowerment, and community connections has become a phenomenon of interest for many scholars (Mitra, 2004; Larson & Angus, 2011; Christens & Peterson, 2012; Krauss et al., 2013; Zeldin, 2004). Despite having different backgrounds within a community, youths have been found to participate in all aspects of a program, starting from visioning, program planning, evaluation, and sustainability (Zeldin, 2004). Contemporary researchers such as Prové et al (2016) confirmed that UA is popular among youth groups in Ghent, Belgium. Involving youths in community programs directly contributes to nation-building by fortifying community institutions and giving them opportunities to share their experience and awareness for collective action (Ginwright, 2006; Linds et al., 2010). Comparatively, a majority of the elderly fail to participate in community programs socially and psychologically. Qualitative research by Colquitt et al (2000); SixSmith, et al (2003) further highlighted that elders are physically vulnerable and undervalued in developing and maintaining social relationships in community settings. Similarly, Dostie (2011) and Dubé, et al. (2018) mentioned that people aged 55 years old and above have lower productivity due to health factors. Depressive mood due to old age is also considered because elderly adults often experience changes in factors such as social functions, social relations, and physical conditions (Müller-Spahn & Hock, 1994; Rowe & Kahn, 1997).

However, Sheikh et al (2015) introduced another angle to this debate when they reported that social capital amongst farmers of the watercourse association in Pakistan increased with the age factor. In terms of age amongst the Japanese elderly, they tend to possess fewer networks with different generations as their age (Murayama et al., 2015), but connections with different age groups might have a unique value as age advances. Elders tend to have more experience and knowledge, which provides them with greater opportunities to exchange ideas and have close relationships with the community. It is wise to propose that social empowerment can be enhanced by the interaction between social capital and age by addressing both youths' and elders' participation in the program as a strategy to contribute to program development and empowerment.

Impact of Level of Education toward Empowerment

One advantage of bonding is that it captures the diffuse nature of social networks in a manner that transcends concepts from distinct academic disciplines. Researchers emphasized that education is the key factor in increasing empowerment by increasing self-confidence and understanding in planning and implementing a program. Stanton-Salazar (2004) revealed that education has a significant role in encouraging people's breadth and depth of information and fostering their social interactions such as making friends and conflict resolution. Residents

with higher levels of social status and a combination of education and wealth are more likely to believe in their ability to influence governments' decisions and are more likely to take collective action (Bandura, 1997). Moreover, as cited in Ferguson and Dickens (1999), Loury found similar results where a neighborhood is more likely to have greater social capital when "more of its members have education, experience, and information and perhaps more physical and financial wealth as well to share."

In fact, tertiary education has a strong social relationship compared to primary and secondary education (Tokas, 2016). People acquire opportunities to participate responsibly in community development projects, become peer mentors, and lead programs when going through tertiary education. Thus, they become more mature and experienced in handling community programs. On the other hand, primary and secondary education leavers generally have less knowledge and experience in conducting programs as programs are usually planned and organized by schools. This finding is consistent with Rilwanu (2014), who found that the education factor does not influence empowerment. The key argument here is that someone who participates consistently and excellently in programs/events appears to reach a higher degree of success, regardless of their level of education. Samah and Aref (2009) supported this statement by defining empowerment as a process by which individuals or groups are able to practice their ability and capacity to comprehend and interpret their problems to action. However, there is little evidence on the interaction between different ages and levels of education and social capital bonding, particularly in the UA context. In light of these arguments, this paper examines whether and how different ages and levels of education act differently in moderating the relationship between social capital and social empowerment. The authors wish to understand whether differences in age and level of education regulate the relationship between social capital and community empowerment differentially.

Methods

Study Population

This study employed multi-stage random sampling. The population was grouped into a number of communities in seven selected districts: Sri Muda, Batu Tiga, Templer, Batu Caves, Dengkil, Semenyih, and Kota Damansara. A quantitative questionnaire survey of 27 UA communities in the Klang Valley area provided data for this study. The total sample size is 212 participants. UA members were surveyed using structured questionnaires to obtain social empowerment and social capital bonding data. Age and education level were employed as moderator variables as they were found to be the most influencing aspects of community development empowerment (Grown et al., 2005; Speizer et al., 2005; Dostie, 2007; Nikkah, 2010; Tokas, 2016; Clement et al., 2018). As mentioned in past literature, due to the health factor, people's productivity starts to decline at the age of 55 years old (Dostie, 2011; Clément et al., 2018). Therefore, the researcher applied this cut point as a measure for the young and older age category. Tokas (2016) indicated that tertiary education has stronger social relations than the primary and secondary education levels in terms of education level. In the same vein, Nikkah (2010) specified that tertiary education groups produce higher performance in empowerment than the other education groups. Hence, a cut point was formed, with the primary and secondary school categories labelled as 0, while the tertiary category is labelled as 1.

Descriptive analyses such as frequencies, percentages, mean, and standard deviation were employed to gain the study's objective. In this study, a majority of participants are male (62.7%), while 37.3% are female. For marital status, 94.3% of them are married, and the rest

(5.7 percent) are either divorced or single. Based on previous studies, the empowerment factor is also influenced by gender and marital status. Past studies have discovered that men generally report higher empowerment in formal organizations in all types of society compared to women (Norris & Inglehart, 2006). With superior access to resources and a stronger voice in the home and society, males often freely engage in political and social activities that allow them to acquire the vital resources required to enhance their institutional capacity. Babaei et al. (2012) also stressed that men actively engage in social activities, whereas women spend more time on domestic work and childcare and are less engaged in interactions with other people outside their home.

Another study by Nikkhah (2010) showed that there are major gaps in empowerment between divorced and married groups whereby divorced groups are highly empowered in activities relative to married groups. Thus, gender and marital status (married and divorced variables) act as control variables in this research.

Measurements

The study is based on the quantitative method approach, and the instrument is designed to broadly cover i) socio-demographics of participants, including the Social capital of UA program participants as adapted from Ibrahim (2016), which consist of bonding social capital (6 items), and Empowerment of UA program participants with 10 items on social empowerment adapted from (Ndaeji, 2014; Rezai et al., 2014).

Bonding Social Capital

Bonding social capital was measured using 6 items adapted from (Ibrahim, 2016). The concepts of bonding social capital were examined with the statements: "After participating in the UA program, I'm always communicating with members who are involved in the program." "After participating in the UA program, I put my whole trust on my neighbor to handle the project if I am not around." "After participating in the UA program, we do a lot of work together in a team." "After participating in the UA program, I regularly help my neighbor." "After participating in the UA program, I always share responsibility as well as common interest with my neighbor." and "After participating in the UA program, my neighbors are willing to assist me if I need help." (1 - Strongly Disagree, 2 - Not Agree, 3 Not Sure, 4 - Agree, 5 - Strongly Agree). We conducted a preliminary test on 30 samples beforehand to verify the validity and reliability of these items in the study setting. Overall, the subjects had a strong understanding of the items, so we used all these items in the survey. The responses for the 6 items were relatively normally distributed.

Social Empowerment

Items for social empowerment were adapted from Ndaeji (2014); Rezai et al (2014) and developed into a measurement that helps UA communities gain control over their own communities. The concepts of social empowerment were examined with the statement: "I have access to a new skill after practicing urban agriculture." "I've learnt a lot throughout networking after practicing urban agriculture." "I've made new friends right after practicing urban agriculture." "I'm happily working together with community members." "I feel comfortable to make decisions after practicing urban agriculture." "The quality of my life has improved after practicing urban agriculture." "I've learnt new things from the members of the community after practicing urban agriculture." "I've performed my social responsibilities after practicing urban agriculture." "I've obtained useful information after practicing urban

agriculture.” and “I’ve known my neighbor well after getting involved in urban agriculture.” (1 - Strongly Disagree, 2 - Not Agree, 3 - Not Sure, 4 - Agree, 5 - Strongly Agree).

Results and Discussion

A hierarchical regression analysis was conducted to analyze the main effect and interactive effect. Table 1 depicts the analysis results for the bonding and social empowerment variables. For bonding social capital, a majority of them are at a high level of bonding (53.0%), while only 6.6% are at a moderate level. These results reflect previous research (Woolcock & Narayan, 2000; Henly et al., 2005; Rilwanu, 2014), which found a high level of bonding in social capital among participants, where middle-income class people generally have an abundance of bonding social capital amongst them. Hence, people joining UA have been shown to have greater bonding with each other since UA creates an opportunity for them to socialize and share. The social empowerment results revealed that half of the participants had high levels of social empowerment, and only 28.3% had low levels of social empowerment. It is encouraging to compare this outcome with previous findings found by Agustina and Beilin (2012) in a UA study among migrants, which looked to see if the UA program has created social space and empowerment amongst new communities.

Table 1

Level of bonding and social empowerment in UA program

Level	Frequency	Percentage (%)	Mean	SD
Bonding				
Low (1.00-2.39)	66	31.3	2.24	0.899
Moderate (2.40-3.69)	29	13.7		
High (3.70-5.00)	117	55.2		
Social empowerment				
Low (1.00-2.39)	60	28.3	2.22	0.859
Moderate (2.40-3.69)	46	21.7		
High (3.70-5.00)	106	50.0		

Table 2 indicates the correlation matrix for all variables in this research. The correlation coefficient of social empowerment with independent variables such as bonding was highly positively correlated ($r=0.760$, $p<0.01$). The result indicated that education negatively correlates towards social empowerment, bonding social capital, gender and age with values of $r= -0.146$, $r= -0.199$, $r= -0.140$, and $r= -0.247$, respectively.

Table 2

Spearman Correlation

	Y	X ₁	X ₂	X ₃	X ₄
Y (Social empowerment)	-				
X ₁ (Bonding)	0.760** (0.000)	-			
X ₂ (Gender)	0.005 (0.946)	0.028 (0.690)	-		
X ₃ (Age)	0.095 (0.170)	0.106 (0.122)	-0.037 (0.592)	-	
X ₄ (Education)	-0.146* (0.033)	-0.199** (0.004)	-0.140* (0.042)	-0.247** (0.000)	-

The primary and interactive effects in the hierarchical regression analysis are shown in Table 3. In the present study, bonding social capital acts as the independent variables, age and education level act as moderator variables, and social empowerment acts as the dependent variable. In model 4 of the interactive effect analysis, both bonding social capital and age category had a significant negative impact on social empowerment. The inclusion of age as an interaction term slightly increased the adjusted R² from 0.578 to 0.580. Our results portrayed that young age increases the effect of bonding social capital towards social empowerment. As shown in Model 5, our results confirmed that the effect of the interaction term on the relationship between bonding social capital and education level is significantly positive at the 95% level. The addition of the interaction term slightly increased the adjusted R² from 0.580 to 0.589. The result suggests that although a higher bonding social capital is associated with social empowerment, education level is likely to be even more effective in influencing participants' bonding social capital toward social empowerment.

Table 3

Summarized results of hierarchical multiple regression analysis in predicting social empowerment (n=212)

Dependent variable (Social empowerment)				
	(1)	(2)	(3)	(4)
Bonding	0.631*** (16.468)	0.632*** (16.432)	0.631*** (16.461)	0.631*** (16.639)
Gender	-0.033 (-0.324)	-0.032 (-0.319)	-0.033 (-0.325)	-0.052 (-0.519)
Age	0.032 (0.316)	0.033 (0.324)	0.030 (0.300)	0.052 (0.520)
Education	0.015 (0.137)	0.018 (0.163)	0.007 (0.068)	0.017 (0.160)
Bonding × Gender		-0.020 (-0.246)		
Bonding × Age			-0.083 (-1.085)	
Bonding × Education				0.193** (2.378)
R^2	0.578	0.578	0.580	0.589
Adj. R^2	0.570	0.568	0.570	0.579
F-statistic	70.881	56.460	56.989	59.11

Notes: Regression coefficients are standardized betas. Significance level $p < 0.01^{**}$ and $p < 0.05^*$

This study explored bonding social capital and social empowerment amongst UA program participants in Klang Valley. Specifically, the study evaluated how the interaction between the independent variable (bonding social capital) and moderator variables (age and level of education) affect participants' social empowerment. In terms of descriptive analysis, the results revealed that the participants showed strong bonding social capital and social empowerment through the UA program. The results are consistent with numerous findings that indicate that UA activities provide an advantage by establishing a social space that becomes a focal point for community gathering and interaction (Omar et al., 2015; Siagian, 2016; Othman et al., 2019). As Othman et al (2019) emphasized in their research, social contact between group members is crucial to UA involvement. On the other hand, the relationship between bonding social capital and age factor is positively significant towards social empowerment.

The age factor has a negative significance as a moderator in regulating the relationship between bonding social capital and social empowerment. In other words, older groups tend to be less productive and motivated than youngsters, which inadvertently declines their social interaction with other group members. Youth involvement in community programs can become a strategy to maintain strong social relationships, while elderly involvement allows them to share their experience and insight and change it into collective action (Linds et al., 2010). Thus, youth participation and cohesion (bonding social capital) in UA programs are important as it has the advantage of fostering positive character development.

The rapid development of UA-based learning education programs has been evident in the past decade in European countries, particularly Greece, Ireland, Luxembourg, Spain, Sweden, and UK (England, Wales and Northern Ireland, and Scotland). These countries have

emphasized and given relatively high consideration to environmental education in order to develop the knowledge, skills, and understanding needed for the sustainable development of UA programs within the school curriculum (Stokes et al., 2001). Moreover, European countries have recognized the importance of environmental experience-based learning, a movement which was later followed by the United States (Bachert, 1976). This movement then established the National Future Farmers of America, which was developed for youths studying agriculture in public secondary schools (Currie et al., 2009). The organization's objectives are to gain youths' interest and experience and promote participation in agriculture programs. Restoration-based education allows students to learn ecological concepts and investigate the natural and cultural history of important and relevant lands. Multi-level involvement in restoration projects allows students to feel a sense of ownership, competence, and connection to the community.

Youth participation in UA programs has existed for decades in developed countries as it has been proven to be an effective way for community contribution. Therefore, as a small developing country in Asia, Malaysia should follow the approach developed countries took in configuring an effort to intensify participation and cohesion in agriculture from people of all ages. Usually, youths are not noticed as essential contributors to society, primarily due to misconceptions about their age and developmental capacity. However, Zeldin (2004) acknowledged that many adults believe that youths have the potential to contribute to their communities. Youth participation in the UA program has many advantages which convey positive character changes in general. However, the question to ask is that are Malaysian youths interested in participating in the UA program?

This is the moment where the Malaysian government should play its role in developing policies, such as establishing UA programs as a part of the school curriculum to ensure youths' early exposure to agriculture. The Malaysian education system should incorporate the UA program as a compulsory subject in order to enhance youth engagement in community programs. Therefore, this study seeks to encourage young people to participate in UA as a new effort of channeling motivation to translate national priorities into concrete results. Stakeholders, communities, parents, and educators should recognize and encourage this environmental awareness movement within young people with aspirations to foster the UA program to succession. The receptivity of interested parties can play a central role in youths' efficacy, engagement, and continued involvement in community programs.

Associations and organizations can encourage educators to nurture students' interest and participation in agricultural education through meaningful engagement, peer opinion, personal aspirations, and high opportunities (Currie et al., 2009). It will increase the value of responsibility, together with the probability of UA development programs' success in the country. Similar research conducted by Ozer (2007) found that school agriculture programs positively affect students' emotional, social, physical, and intellectual development. Educators and instructors are key actors in shaping school UA programs since they maintain close relationships with youngsters and have direct opportunities to give particular attention to the program's implementation, as education is an important factor in shaping sustainable development.

Along the same lines, it was found that the interaction between bonding social capital and education level has a significant on empowerment. These results prove that participants with high education levels are most likely to increase their bonding social capital towards social empowerment. Youths and highly-educated participants seem to be highly associated with social capital and social empowerment of UA programs. This implies that young and

knowledgeable members are more connected and see greater value in UA programs. Therefore, the potential of the education factor is not exaggerated as it can serve as an important means of empowering people through the giving of knowledge, skills, and self-confidence (Vijayanthi, 2002). Highly educated people are more involved in organizations and have high levels of both cognitive competence and status jobs (Gesthuizen & Scheepers, 2010). Colleges and universities actively inspire undergraduate students to become involved in some form of volunteer service, and this has been found to positively affect students' long-term civic commitment (Johnson, 2004). Students learn civic norms, obedience to collective interests, and responsibilities in society through socialization (Morris & Cogan, 2001; Dee, 2004). Besides, education attainment can enhance students' skills and resources such as intellectual, communicative, and organizational proficiency, all of which can facilitate community involvement (Hauser, 2000). Education has a significant impact on empowering individuals in the context of urban agriculture. It provides knowledge, skills, and self-confidence, enabling people to actively participate in urban agriculture initiatives. Colleges and universities play a crucial role in inspiring students to engage in volunteer service, fostering long-term civic commitment. Education also enhances practical skills and resources, such as communication and organizational proficiency, which are essential for community involvement in urban agriculture. Overall, education plays a vital role in empowering individuals and ensuring the success of urban agriculture endeavors.

Conclusions

Referring to the findings above, it can be concluded that young and highly educated groups play an important role in implementing any community development program, especially UA programs. The community accepts community development efforts through UA programs due to the social and economic benefits offered to the local community. In addition, agricultural technology is advancing. Thus, deep knowledge, attitudes, and practices amongst community members need to be emphasized on in order to ensure the sustainability of a program. Studies are required to clarify the factors influencing people to participate. Youths are probably empowered and connected when they consider themselves to be partners with elders in community organizations. Elderly people have more experience and knowledge and can thus mentor the youths to handle programs. Collaboration between the youths and elders is thus needed to fulfill the objective of getting everyone involved in order to gain collective benefit. One limitation in this study is the lack of in-depth analysis of the specific factors that influence people to participate in UA programs. While the study acknowledges the need for further research on this topic, it does not delve into the underlying motivations, barriers, or incentives that drive individuals to engage in community development initiatives. Exploring these factors would offer valuable insights for program design and implementation. Additionally, the study does not extensively address the potential challenges and barriers to achieving collaboration between young and elderly community members. While it suggests that collaboration and mentorship between the two groups are important, it does not delve into potential conflicts, generational gaps, or power dynamics that may arise in such collaborations. Examining these challenges would provide a more nuanced understanding of how to effectively foster intergenerational cooperation in community organizations.

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