European Proceedings of
Social and Behavioural Sciences
EpSBS

www.europeanproceedings.com
e-ISSN: 2357-1330

DOI: 10.15405/epsbs.2024.05.26

INCOMAR 2023
The 9th International Conference on Marketing and Retailing

THE ANTECEDENTS' AND BEHAVIORAL DETERMINANTS OF PARTICIPATION INTENTION IN COMMUNITY URBAN FARMING

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Abstract

Community urban farming provides urban dwellers access to healthy, nutritious, home-grown, low-cost fresh produce. Indeed, it is seen as a mechanism that creates a source of income and reduces the cost of living. However, one of the challenges is the need for greater community participation in active urban farming, which prevents farmers from becoming self-sufficient. This study examines the behavioural determinants of farmers' intention to participate in community urban farming. The study uses the theory of planned behaviour and community development theory and assesses the behavioural determinants using data collected from 310 urban farmers. The results suggest that norm and publicity (subjective norm) are the strongest predictors of intention to participate, followed by farming facilities and costs (perceived behavioural control) and attitude towards community urban farming (attitude). This study provides essential information for policymakers to design better intervention programmes to improve participation in community urban farming so that they become self-sustaining urban farmers.

Keywords: Community urban farming, intention, participation, theory of planned behaviour, urban farming

https://doi.org/10.15405/epsbs.2024.05.26
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Selection and peer-review under responsibility of the Organizing Committee of the conference
eISSN: 2357-1330

1. Introduction

Urbanisation is a pervasive reality today. In developing countries, urbanisation is accelerating and is accompanied by widespread hunger, unemployment, inequality and poverty (Nijman & Wei, 2020). Cities are home to large segments of poor and marginalised populations, with significant environmental and human health impacts (Salsiah & Sharif, 2019). With urbanisation, the number of urban poor tends to increase. People who live in cities and make less than RM2,210 per month are considered urban poor (Ministry of Housing and Local Government, 2021). At least 3.7 % of urban households earn less than RM2,000 monthly (Department of Statistics Malaysia, 2020). Although not all households bear the exact costs, they spend 50-70% of their income on food purchases, making them the "urban poor" (Von Braun, 2008). This assertion is supported by a (Khazanah Research Institute, 2018) report that 94.8% of the income of Malaysia's urban poor is used for consumption, highlighting the vulnerability of households with incomes below RM2,000 to economic shocks or emergencies. The Bottom 40 (B40) income group accounts for about 56% of the population in urban areas, with some households earning no more than RM2,537.00 per month or less (Jayasooria, 2016). The demand for food increases with the size of urban areas, putting additional strain on the global food supply system. Therefore, it is reasonable to assume that Urban Farming (UF), especially Community Urban Farming (CUF), is among the best strategies to respond to these economic and social shock scenarios.

In developed countries, Community Urban Farming (CUF) is widely used. It provides numerous benefits to residents (He & Zhu, 2018). Malaysia is no exception where CUF is given attention to engaging individuals, schools and institutions, whether private or government, in UF (Othman et al., 2017). Numerous studies have consistently examined the role of the community in UF, community participation and the development of UF in Malaysia, which provides economic, social and environmental benefits and improves people's perception of their quality of life (Hussain et al., 2019; Islam & Siwar, 2012; Ramalingam et al., 2019; Ramaloo et al., 2018; Tajuddin et al., 2019; Tapia et al., 2021). CUF helps improve a community's social and economic quality and provides an excellent framework for communities to work together and support each other. Saving money motivates urban farmers to produce fresh and delicious produce for high-rise residents and grow food for daily consumption (Caputo et al., 2020). CUF seeks to promote public engagement, provide food to people of limited means, and reduce household expenditures (Poulsen, 2017), all of which help reduce food costs (He & Zhu, 2018). People with low incomes rely on urban gardening because they have limited access to food (McClintock et al., 2016), which could lead to positive health outcomes (Audate et al., 2021; Lal, 2020; Soga et al., 2017).

The literature on CUF and participation is inevitably vast. Consequently, many studies have been conducted to define and assess the benefits and potential of CUF (Mubarak et al., 2021; Tapia et al., 2021), analyse the factors that influence it (He & Zhu, 2018), and explore the relationship between CUF and well-being (Kingsley et al., 2009; Rao et al., 2022). Community engagement and participation are essential for community development (Ohmer et al., 2009). It is believed that firm intention leads to positive participation and engagement of urban farmers. For example, Tang et al. (2022) strongly suggest that intention increases participation commitment. According to the results, subjective norms, behavioural attitudes and perceived behavioural control predicted residents' intention to participate and behave in this activity. Another study focused on the intention to participate (Tiraieyari et al., 2019) indicated that

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students' attitude towards UF was the strongest predictor of participation. In addition, students involved in campus-based activities showed a more significant effect of perceived behavioural control on their intention to volunteer. There are few comprehensive studies on participation intention in community-based UF (Lee & Matarrita-Cascante, 2019). However, only a few have systematically uncovered the critical determinants influencing the intention to participate in UF, although studies have shown that it can increase engagement (Tang et al., 2022).

Nevertheless, a few theory-driven empirical studies in the participation literature examine urban farmers' motivation and intention to participate in CUF. For example, Caillouet and Cosio-Lima (2019) used the TPB to examine the relationship between handgrip strength and older adults' intention to engage in physical activity. However, they did not consider public acceptance a significant factor motivating people to participate and leading to a successful programme. On the other hand, Kalantari et al. (2018) said that public acceptance is essential in the context of public acceptance theory. However, it is still generally limited to social science theory in the CUF context.

2. Problem Statement

To date, numerous cities have adopted CUF and attracted much attention. As the global urban farming movement has gained momentum recently, interest in CUF has also increased. In the case of Malaysia, the government has tried to raise awareness of UF among urban dwellers through various policies and projects. Having recognised the importance of UF to the agricultural sector, the Malaysian government has taken necessary measures to develop UF under the National Agro-Food Policy (Ministry of Agriculture, 2011). In addition, the Department of Agriculture (DOA) has further intensified UF under its Strategic Plan (2016-2020) and has paid much attention to community-based UF (Department of Agriculture, 2016). Next, under the short-term economic recovery plan (PENJANA 2020), more funds were made available to expand community-based UF, primarily to reduce the cost of living for households affected by COVID-19 (Ministry of Finance, 2020). Recently, the DAN 2.0 agenda has focused on increasing the productivity, income, and quality of life of producers in the food sector, with the key indicators being young agro-entrepreneurs and CUF (Ministry of Agriculture and Food Industries, 2021). However, there is still a lack of active participation in UF, and urban farmers struggle to maintain and successfully operate their CUFs (Becker & von der Wall, 2018; Diaz et al., 2018; Othman et al., 2017; Wadumestrige Dona et al., 2021). As a result, total participation will be lower in 2020 than in 2017 (Chenarides et al., 2021)

3. Research Questions

Participation was crucial to the growth and continuity of CUF. However, the problems discussed in the previous section raise several essential questions requiring closer examination. Therefore, to fill the research gaps and to examine determinants that would trigger and motivate urban farmers to participate in CUF actively, several important research questions are addressed in this study, which are listed below:

i. How does attitude towards CUF affect urban farmers' intention to participate in CUF?

ii. How do norms and publicity affect urban farmers' intention to participate in CUF?

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iii. How do facilities affect urban farmers' intention to participate in CUF?

iv. How does cost affect urban farmers' intention to participate in CUF?

3.1. Purpose of the Study

In light of the above, the study areas offer scope for further research as they are not always clear and under-researched, and it is crucial to investigate the intention of urban farmers to participate in CUF. Based on these considerations and a supporting literature review, this study identified four determinants that influence the intention to participate: "attitude towards CUF", "norm and publicity', "facilities", and "cost".

4. Literature Review

4.1. Theoretical Framework and Hypothesis

Urban farmers' intention to participate can be related to attitude towards CUF, norms and publicity, facilities and cost factors. Therefore, it is feasible to choose TPB and CDT as the primary theoretical models to understand better farmers' intentions to participate in urban farming (Figure 1). The TPB can help to understand planned participation behaviour (Casper, 2007; Tang et al., 2022), and the theory posits three influential factors that determine behavioural intention, which include attitude towards the behaviour, subjective norm and perceived behavioural control (Ajzen, 1991). TPB (behavioural intention) refers to the driving forces behind a particular behaviour. The more strongly one intends to behave, the more likely one is to do so (Ajzen, 1985). Therefore, TPB assumes that better intention will improve behaviour to participate.

On the other hand, Community Development Theory (CDT) focuses on a broader goal that benefits members, society and the environment. The strength of CDT determines the skills and confidence to make a difference in the lives of the organisation's members (Popple & Quinney, 2002). Furthermore, it refers to the locality, which focuses on people working together and emphasises processes to ensure improvement and impact. Based on CDT, a strong community must be supported by excellent participation. For this reason, participation intends to strengthen the community and lead to a self-sufficient UF.

The definition of participation intention has been expanded in some studies, and various experiences have been described as examples of effective or ineffective participation processes (Reed et al., 2018). Numerous studies have also examined the benefits of motivation on participation intention (Alaimo Katherine, 2016; Draper & Freedman, 2010) and its relationship with individual intentions and behaviour. The concept of participation is a process of community empowerment that enables people to identify their needs or the needs of local groups as a basis for capacity building. Every citizen has the right to express their thoughts directly or indirectly in the decision-making process that affects the public interest and is empowered through participation (Suparno, 2017). The participation of urban farmers refers to collaboration and engagement (Mahmood et al., 2021). Although not in the same situation, they must trust each other and share an exemplary commitment. Every citizen has the right to express his or

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her opinion in the decision-making process that affects the public interest, directly or indirectly, and is encouraged through participation (Wilcox, 1994). In a holistic view, the positive participation of urban farmers depends on their intention.

Ajzen (2005) explained that intention is the immediate antecedent of natural behaviour. The direct causes of behaviour are intentions; the greater the desire to perform a behaviour, the more likely it is to occur (Doll & Ajzen, 1992). Attitudes towards CUF, norm and publicity (subjective norm), and facilitation and cost (perceived behavioural control) concerning the intention to participate also have a significant influence on intention (Tang et al., 2022)to engage in community UF. Therefore, the intention is essential in studying behaviour as it is considered to balance direction and support. However, urban farmers' intention to engage in community UF may also be hindered by other factors and challenges (Abdul Rahman, 2018; Audate et al., 2021b). For example, (Rowe & Frewer, 2004) argued that people's intentions to participate are determined by psychological factors, of which trust is crucial in community UF activities. According to Lee and Matarrita-Cascante (2019), participation intention is essential to strengthening engagement. Similarly (Cheng, 2022) showed that intention positively impacts urban farmers' participation in China.

Ajzen and Fishbein (1980) suggest that a person's attitude towards a certain behavior is determined by their evaluation of that behavior. This evaluation can be either positive or negative, and it affects whether or not the person is likely to engage in that behavior. In other words, a person's attitude towards something influences how they behave towards it (Ajzen, 1985). Therefore, it is important to maintain a positive attitude towards things in order to encourage positive behavior. Cheng (2022) also notes that when it comes to participation, attitude plays a significant role. Additionally, Avoseh (2001) highlights the importance of capacity building through the development of awareness, knowledge, and skills to improve the quality of individual and social life.

The second determinant is norm and publicity (subjective norm), which refers to urban farmers' perceptions of their motivation to adopt the perspectives of these people. Subjective norm is a social predictor that indicates the perceived social pressure to perform or not perform the intended behaviour (Ajzen, 1991). In this case, norm and public include the agency's role and laws and regulations. Laws and regulations use norms to control people's behaviour (Galbiati et al., 2021) In addition, another study has indicated that a high level of information publicity is an essential element that promotes intention (Si et al., 2022). Power relations must be transformed at the agency and structural levels for empowerment and participation to be meaningful (Pettit, 2012). The government's environmental agenda and the laws and regulations that support CUF positively impact people's intentions to participate.

Perceived behavioural control in our framework reflects urban farmers' perceptions of ease and difficulty regarding facilities and costs. However, the intention to participate cannot be ensured without adequate facilities, and the cost factor motivates the intention to participate (Caputo et al., 2020). It also appears to be influenced by hedonic and normative benefits (Wang & Fesenmaier, 2004). The availability of information about a particular behaviour affects an individual's ability to participate in it (perceived behavioural control). An individual is firmly convinced to engage in a behaviour when he or she is convinced that resources are available to engage in that behaviour (Ajzen, 1991). In line with this argument, the intention to participate is influenced by people's experience and confidence (trust) in

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dealing with the government (Alharbi et al., 2015), the conditions of the facilities and the cost factor in term of save money on food (Audate et al., 2021b). The higher the commitment and intensity of participation, the more outstanding the contribution to achieving common goals, which leads to the project's success (King et al., 2019).

TPB provides the most significant theory for analysing and predicting human behavioural intentions and supports CDT in linking social engagement. In summary, attitudes, norms and publicity, facilities and costs are critical areas that could help strengthen participation intentions in urban CUF areas. This also increases CUF's sustainability, effectiveness, accountability, and responsiveness. In this case, understanding the key drivers may also enable urban farmers to increase the proportion of community members participating in urban farming (Grebitus et al., 2017). The discussion with the comprehensive literature review presented in section 2.0 led to the development of the following hypotheses:

H1: Urban farmers' attitudes towards CUF positively influence urban farmers' intention to participate in CUF.

H2: The norm and publicity positively influence urban farmers' intention to participate in CUF.

H3: The facilities positively influence urban farmers' intention to participate in CUF.

H4: The cost influences urban farmers' intention to participate in CUF.

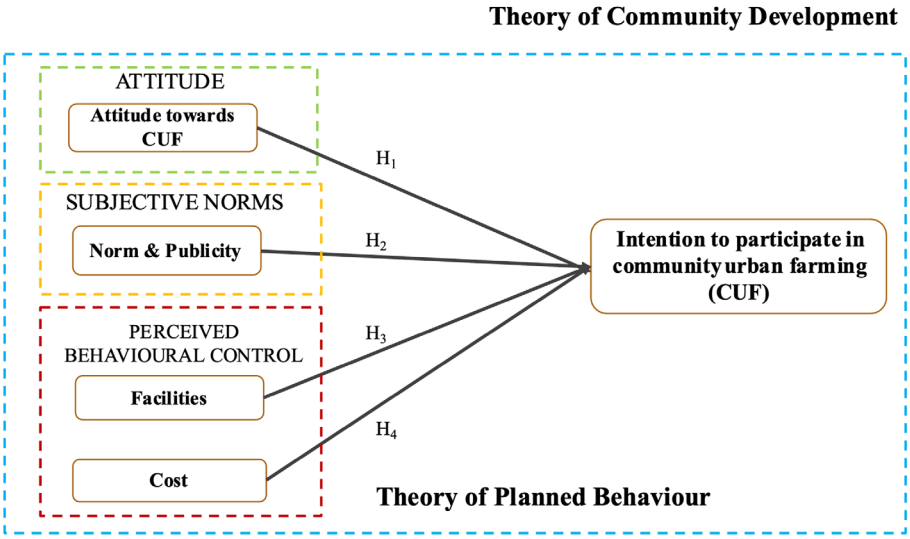

Figure 1. Research framework- The theory of planned behaviour and community development, Source: Author owns

5. Methodology

We based our findings on representative secondary data from 310 urban farmers (2020). The data were collected by the Malaysian Agriculture Research and Development Institute (MARDI) with the assistance of the first author. The sample consists of all urban farmers from the major CUF cities in

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Malaysia. This is where the largest number of urban dwellers is concentrated. Major cities such as Kuala Lumpur, Shah Alam, Putrajaya, Johor Bharu, Ipoh, Georgetown, Seremban and Malacca are located along the west coast of the coastal zone of Peninsular Malaysia, where a significant proportion of the population resides (Chee et al., 2017). The survey questions are based on the relevant existing research instrument. Attitudes, subjective norms and perceived behavioural control are the categories that group the factors influencing intention to participate in CUF.

Data analysis involves understanding the farmer's distribution and other descriptive analyses, assessing the reliability and testing the study's main hypothesis. Exploratory Factor Analysis (EFA) was used to identify the critical construct of the study and to explore three basic decision points in exploratory factor analysis: (1) determine the number of factors, (2) select an extraction method, and (3) choose the rotation method (Pallant, 2016). Consequently, multiple regression techniques were used to investigate the relationship between the intention and its antecedents (Keith, 2015).

6. Finding

Table 1 shows the demographic distribution of the respondents. The largest age group participating in the CUF is 28% or 87 respondents between 50 and 59. Followed by the age groups 60-69 (23% or 72) and 40-49 (23% or 71), male urban farmers accounted for 56.30% or 174 of the population, while female urban farmers accounted for 43.87% or 136. In this study, Malay urban farmers constitute the majority of the respondents (248 or 80%). In addition, 143 of the respondents or 46.1%, had a university degree. Based on their monthly income, Malaysian households were classified into three categories (M40, B40 or T20). In Malaysia, the B40 group was carefully selected for the CUF programme because it is home to households earning less than RM 4,850.00 monthly. Our sample comprises 86% of urban farmers in the B40 group, while the rest are mainly in the M40 group. Therefore, increasing the intention to participate in UF is critical for these groups. Housewives and pensioners account for 29% of urban farmers. In addition, urban farmers make up about 20% of the private sector, 22.9% of the public sector workforce and 23.9% of business owners. Few urban farmers were frequently and passionately engaged in farming. However, at least 25.16% of them engage in UF activities daily, and 4.83% even twice daily, spending an average of 2 hours per visit on agricultural activities. The activities include the routine chores of urban farmers, such as weeding, watering, planting, fertilising and harvesting.

Table 1. Urban farmers profile

Socio Demography Characteristic		Frequency (n=310)	Percentages (%)
Category	Urban Farmers	243	78.39
	Group Leader	67	21.61
Gender	Male	174	56.30
	Female	136	43.87
Dominant age group	<20	2	1
	21 - 29	16	5
	30 - 39	48	15
	40 - 49	71	23
	50 - 59	87	28

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	60 - 69	72	23
	70 - 79	14	5
Ethnicity	Malay	248	80
	Chinese	56	18.06
	Indian	6	1.94
Religion	Islam	246	79.4
	Christian	16	5.2
	Hindu	4	1.3
	Buddha	43	13.9
	Sikh	1	0.3
Household income Group	B 40 = < RM 4,850	268	86
	M40 = RM 4,850 – RM 10,959	39	13
	T 20 = > RM 10,959	3	1
Number of Household members	1-5 people	240	77.50
	6- 10 people	68	22.11
	11-15 people	1	0.33
Job background	Government	71	22.9
	Private sector	62	20
	Businessman	74	23.9
	Agropreneurs/Farmers	11	3.5
	Others (Pensions/housewife/student)	92	29.7
Educational attainment	Primary and below	11	3.6
	Secondary	151	48.7
	University/college	143	46.1
	Others (Special education)	5	1.6
Participation in CUF activities (For each visit=2 hour)	Once a month	26	8.38
	Once a week	109	35.16
	More than once a week	82	26.45
	Every day	78	25.16
	Twice a day	15	4.83

6.1. Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) was used to assess the construct of the study. Table 2 demonstrates that the KMO value is 0.875. Bartlett's Sphericity Test is significant ($p<.001$), indicating that the item is sufficient and suitable for factor analysis and that no significant multicollinearity issue exists. Following this, factor analysis with the principal component extraction method was performed to examine the dimensionality of the items measuring the dependent variable: positive participation intention among urban farmers. Item loadings of 0.5 or greater and those charged to a single factor were extracted. The factor analysis revealed five behavioural factors that could explain 67.96% of the study's total variance, indicating that the sampling was adequate for each item used to measure the variable. The intention (behaviour intention) is the main variance among these elements, accounting for 37.35% of the overall variance (behaviour intention). The other four (4) main antecedents include norm and publicity, attitude and facilities and cost.

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Table 2. Result of factor analysis

Sampled Items	Component				
Behaviour Intention (Intention to participate in CUF)					
I intend to practice UF as a therapy (relieve stress)	.819				
I have a deep interest in UF and have plans to practice it in the future.	.779				
Overall, I am satisfied and enjoy the urban farming activity in which I participate.	.764				
I want to practice UF to reduce daily costs	.508				
Subjective Norm (Norm and Publicity)					
There is an association that helps urban farmers' welfare.		.763			
Easy to access UF Technology		.727			
There is good monitoring from related agencies.		.718			
Support access to quality fresh fruits and vegetables		.623			
Perceived Behavioural Control (Facilities)					
Sufficient infrastructure and equipment.			.837		
The area is suitable for UF concepts criteria.			.675		
There are encouraging advisory services from agencies.			.599		
Favourable demand and market for CUF products			.522		
Attitude (attitude towards CUF)					
CUF contributes to the country's food supply				.825	
Participating in CUF helps me to generate commensurate returns.				.781	
CUF contributes to my family's food supply (household).				.724	
Perceived Behavioural Control (Cost)					
Growing activity in UF has a positive impact in terms of crop productivity.					.801
Participating in the CUF saved money.					.771
CUF encourages urban farmers to work together without using full-time labour (reduce labour cost).					.750
% Of variance explained	37.35	10.87	7.67	6.17	5.90
% Cumulative variance			67.962%		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			0.875		
Bartlett's Test of Sphericity		Approx. Chi-Square		2525.194	
		df		153	
		Sig.		.000	

6.2. Multiple Regression

The data were further analysed using a multiple regression model to identify behavioural determinants that might influence urban farmers' intention to participate. The multiple regression determines which factors are most important, which can be ignored and how these factors influence each other. As Keith (2015) suggests, multiple independent variables that are either continuous or categorical can be easily included in the multiple regression. The results of this multiple regression analysis are explained in Table 3. The overall multiple regression is statistically significant at R2 0.422. This statistic tells us that the variation in the dependent variable (intention) explains 42.2% of the variation in the analysis. Based on TPB regression models, the study revealed that subjective norms (norm and publicity) have the strongest associations with intentions (β= 0.257, p <0.001), followed by facility (β= 0.246, p

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<0.001), cost (β= 0.232, p <0.001) attitude towards CUF (β= 0.105, p <0.042) significantly predicted intention, thereby supporting hypotheses H1, H2, H3, H4. In this study, norm and publicity factors matter most. Table 3 shows that urban farmers with a higher level of norm and publicity (β-coefficient = 0.257) were expected to experience higher participation intention. Both the variables supported the positive relationship to participation intention.

Table 3. Results of multiple regression analysis

H	Determinant	Unstandardised B	Std. Error	Std Beta.	*t*-value	*p*-value	BCI LL 5%	BCI UL 95%	Collinearty tolerance	VIF
H_1	Attitude towards CUF	.095	.047	.105	2.038	.042	.003	.186	.717	1.395
H_2	Norm and Publicity	.222	.049	.257	4.507	<.001	.125	.318	.581	1.720
H_3	Facilities	.229	.055	.246	4.192	<.001	.121	.336	.552	1.812
H_4	Cost	.211	.047	.232	4.466	<.001	.118	.304	.703	1.423

7. Discussion and Implication

Based on these findings, the CUF began to attract much attention among middle-aged adults and older adult urban farmers aged between 40 and 69. In second place was the young adult group (21-39). This was a good sign, as the older generations had shown great interest in CUF. However, the biggest challenge was to enthuse and retain current participants and ensure program continuity (Boezeman & Ellemers, 2009). In line with the findings on activity engagement, urban farmers still lack active participation. Few urban farmers are passionate about agriculture by regularly visiting and farming the urban farm plot for at least two (2) hours daily. The requirement for time to the garden was discovered to be a significant conditional motivation (Lee & Matarrita-Cascante, 2019) and must be considered. Hence, there is a need to include the visitation frequency in the urban farming guideline books. Previous studies have demonstrated that a proactive personality significantly and positively moderates the relationship between intention and action (Li et al., 2020). In this case, the intention to participate is a crucial component that gives them the focus they need to achieve their goals and is considered a belief in their actions and motivation. In order to influence participation intention, it is necessary to support good policies that focus on these four components: Norms and Awareness (subjective norms), Facilities and Costs (perceived behavioural control) and Attitude towards CUF (attitude).

This study is congruent with Lee and Matarrita-Cascante (2019) and Tiraieyari et al. (2019), who focused on intention using the TPB to help understand participation intention behaviour and improve participation intention (Cui et al., 2022). Even earlier, Taylor and Todd (1995) found that attitude strongly predicted behavioural intention. In contrast, we found that norm and publicity (subjective norm), such as the government agenda for CUF and laws and regulations, were the highest predictors for this study. Norm and publicity positively affected farmers' intention to participate in the city. This supports the hypothesis and is the strongest predictor in the model.

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Furthermore, the results support the researchers' assumptions that norms and publicity promote CUF. These findings confirm that government agencies and publicity are influential in determining the intention to participate in CUF in Malaysia. Government agencies must create and support cohesive garden communities for community gardens to work (Menconi et al., 2020). If urban farmers feel safe and confident, they will be more likely to dare to participate in CUF. According to recent studies, trust is associated with behavioural intentions (Hooda et al., 2022). Therefore, CUF rules and regulations are meaningless without proper communication and a framework for community engagement. There are norms in CUF, but since CUF is mainly voluntary, the right message in communication influences how these norms are perceived. Malaysia can learn from the United States, Germany, the United Kingdom, Italy and China (the five most influential nations), which have done well in UF and introduced the legal framework of the CUF programme.

Most urban farmers will find it challenging to ensure the sustainability of their community UF as they depend heavily on government support to manage the cost of producing vegetables and fruits. Therefore, the CUF programme should empower existing urban farmers and provide training to improve their strategy to manage urban farms' expenditures and identify their constraints. In addition, the city council must actively work with the existing urban farmers to support them and provide the correct information on the latest CUF information. Excellent monitoring by the relevant authorities helps to make CUFs more sustainable, for example, by providing the technical know-how to start a farm. The programmes improve the knowledge and skills of urban farmers, contribute to the continuity of the CUF programme and make them more self-sufficient. Sustainable CUFs contribute to urban farmers' income and social stability.

Moreover, people with high confidence in the perceived values of behavioural control are also more likely to intend to participate. This is consistent with Kopiyawattage et al. (2019), who argue that specific personal characteristics increase perceived behavioural control and decrease when resources are scarce. The previous study also showed that factors influencing perceived behavioural control include perceived benefits, challenges and obstacles (Rehman et al., 2007), personal and situational factors (Tanner & Kast, 2003)and resource availability (Taylor & Todd, 1995)

This study adds some insights: Attitude towards the CUF influences intention to participate. Although the attitude towards the CUF significantly predicts intention, the value is not high. A good campaign should educate the urban community and raise awareness among existing urban farmers. Raising environmental awareness is important for promoting sustainable agricultural practices and strengthening the social networks of farmers in the area (Nguyen & Drakou, 2021). In addition, the education of the younger generation should be promoted, focusing on all schools in urban areas. Recently, the UF programme has only been implemented in selected schools in the Klang Valley.

It is also believed that participation has contributed to satisfactory impacts in the community (Ramalingam et al., 2019). Social control can be critical in promoting sustainability and collaboration (Sabitzer et al., 2018). For example, by rewarding the active and successful CUF group. Taken together, these findings are critical in promoting active participation, as they demonstrate the promise of TPB both as an explanatory model for intentional behaviour and as a direct target for intervention.

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Selection and peer-review under responsibility of the Organizing Committee of the conference
eISSN: 2357-1330

Therefore, the intention to participate should become a standard part of the CUF programme. In a holistic view based on CDT, the context of community participation is an important determinant of UF outcomes. In this sense, a number of studies on Community Development Theory initiatives have confirmed their potential benefits for communities, especially in poverty (Ardle & Murray, 2021; Craig & Porter, 2003; Weyers, 2011). A positive participation intention is believed to encourage urban farmers to actively participate in programmes, public decision-making, service design and delivery to achieve better quality services, improve their skills and contribute to building a strong community. It is also crucial to health, social care and promoting active citizenship (El Ansari & Phillips, 2004). Based on the above discussion, setting these parameters for CUF is crucial to ensure continuous CUF participation.

8. Conclusion

This study highlights the crucial role of several other factors in determining future intention to participate. Attitudes, subjective norms and perceived behavioural control were the categories used to group the factors predicting intention to participate in CUF. According to the TPB, people's intention to behave a certain way depends on how strongly they believe they will behave that way. The factor analysis results detailed each TPB construct, and the multiple regression supports and complements norm and publicity, facilities, cost and attitude as the determinants influencing urban farmers' participation intention and behaviour. Therefore, this study consistently points to the importance of norm and publicity (subjective norms) as the most important factors influencing the intention to participate in CUF. This was followed by facilities and costs (perceived behavioural control) and attitude towards CUF (attitude).

Given the current rise in CUF among Malaysian urban farmers, the TPB framework and CDT support help to understand the factors influencing the intention to participate regularly. In this regard, it helps CUF group leaders and planners better understand the importance of intention and conditional motivations for active participation in gardening. At the same time, it provides valuable insights into what urban farmers achieve in CUF. Therefore, this study suggests that the intention to participate requires bridging subjective norms, perceived behavioural control and attitude with effective practice and policy for remarkable participation.

In summary, the studies on intention to participate need further work, especially other direct and indirect relationships between intention behaviour and participation leading to successful CUF. Nevertheless, it can be concluded that implementation measures should be accurate, effective and responsive to the needs of urban farmers to balance farmers' livelihoods with the country's rapid development.

Acknowledgement

We thank MARDI for permission to use the data to develop better policies. This preliminary assessment is intended for presentation at the conference and gathering feedback from conference participants.

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