

UNDERSTANDING CONSUMERS' COLLABORATIVE CONSUMPTION PARTICIPATION INTENTION IN MALAYSIA: AN APPLICATION OF THE THEORY OF PLANNED BEHAVIOUR MODEL

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Abstract

The initial intention of practicing the collective way of consumption by the consumers was initiated by the idea of ethical consumption for those that yearned for social embeddedness with communal consciousness. Collaborative consumption is a new way of consumption practices beyond the less sustainable traditional linear consumption practices. This study examines the relative influence of consumers' reasoned action variables of attitude, subjective norms, and perceived behavioral control on collaborative consumption by applying the theory of planned behavior. The study framework also included consumers' underlying values and beliefs of behavioural and control beliefs. A survey consisting of 249 samples size was collected and Partial Least Square regression (PLS-SEM) was employed to test the hypotheses. The results show that attitudes and perceived behavioural control are positive and significant in influencing collaborative consumption participation among Malaysian consumers. The behavioural belief of cost savings and community with others are found as consumers' attitude belief underlying intention to consumer collectively. Consumers' collaborative consumption intention is more influenced by economic motives than normative motives.

Research paper

Keywords: Collaborative Consumption; Theory of planned behaviour; Collaborative consumption; Malaysia

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Introduction

The increasing consumers' consciousness of ecological and developmental sustainability issues has initiated consumers changing their consumption patterns towards a direction with a higher desire for socially embedded with collective consumption (Hamari et al., 2016). Furthermore, the development of the world wide web and information and communication technology has induced the development of social network platforms that encourage a new consumption model of sharing economy from individual ownership to access of social sharing (Benoit et al., 2017). This type of collective exchange allows peers accessible of goods and services which is referred to as collaborative consumption (CC).

Collaborative consumption (CC) is one of the sustainable consumption models than the linear consumption that has been practiced by consumers in recent years. The traditional linear consumption that has been practiced by consumers is purchasing new products for personal use and ultimately disposal, while CC is formed on operative management of collaborative, shared use of used, common, or idle resources (Frechette et al., 2020). Consumers make a change in consumption precedent by shifting from ownership to "access" (Bostman & Rogers, 2010) or sharing a product and service. There are four broad categories of CC which are recirculation of goods, extended utilization of durable products, exchange or swap of goods and services, and sharing of useful products (Schor, 2016). CC embraces some underlying benefits such prolong in the useful lifespan of the product maximizing the usage of the product occupied, and promote the use of durable products and recyclable construction design products (Leismann et al, 2013).

CC has emerged as a new market mechanism that create new business opportunity through online or media social platform by connecting peers such as Uber, Airbnb, Grab, GoGet, lokalocal, Lalamove and etc. CC also applies through media social platforms for peers to exchange, gift, swap, and trade their used- or unwanted- items (Salamzadeh et al., 2020, 2022). Thus, the CC become a potential market in many industries including transportation, hospitality and consumer goods (e.g., fashion, toys, furniture, equipment) and it has been bloomed and flourished within these 10 years.

The uptake of CC defines and drives the sharing economy with the rise of the technological instruments and adoption of devices such as smartphones and computers in developing countries. As CC is considered as a new emerging consumption phenomenon, there were study have been done to investigate factors driven the CC participation such as enjoyment, economic benefits, risk, reputation and attitude in which most were focused on developed countries. There is lack of studies on the acceptance, adoption, and diffusion of CC practices are (Piscicelli et al, 2015) in developing countries and specifically in Malaysia context. Participation in these activities is likely influenced by consumers' perception, norms, and attitude towards a new consumption behaviour. Thus, this study aims to study factors influence individual's intention to participate in CC based on Theory Planned Behavior (TPB) framework. This study addressing the gap by introducing consumers' CC intention using TPB model in Malaysia. In addition, we added subjective norms, perceived behavioural control and control beliefs to understand consumers' CC intention using TPB model.

Literature Review

Collaborative Consumption (CC)

In past literature, there are different definitions with different terms used to define CC, including “sharing” (Belk, 2009; Rifkin, 2014), “access” (Bardhi & Eckhardt, 2012; Chen, 2009), and “product-service systems” (Mont, 2004). Among the others, Bostman and Rogers (2010) deliver a broad and inclusive definition of CC by defining it as *“The rapid explosion in swapping, sharing, bartering, trading and renting being reinvented through the latest technologies and peer-to-peer marketplaces in ways and on scale never possible before”* (p.xv). Most of the definition tend to consider CC as existence of web centered as defined by Hamari et al. (2015) defined CC as *“Peer-to-peer based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services”* (p. 2048). Indeed, CC activities could be implemented either through online platform or off-line transactions with high intensity of interaction and collaboration between peer-to-peer. Based on Scaraboto’s (2015) theory on hybrid economies, Ertz et al. (2019) assert that collaboration should be characterized consumers’ with dual-sided role as both “providers” and “receivers’ of resources within a given “resource circulation scheme”. Thus, they defined CC as *“the set of resource circulation schemes that enable consumers to both receive and provide, temporarily or permanently; valuable resources or services through direct interaction with other consumers or through an intermediary”* (p.32).

Based on TPB model, Ross and Hahn (2017) reflect underlying CC behavior in the form of disposition, borrowing, renting, donating, swapping, and buying thing used with underlying five prototypical behavior which are collaborative, share used; acquisition mode (transfer of ownership vs, access);

reciprocity' and compensation (monetary vs non-monetary). These behaviors are performed in commercial collaborative market or between peer-to-peer in term of online or offline. Ross and Hahn defined CC as “Acquiring or providing resources from or to others for collaborative, shared use among consumers or peers as opposed to acquiring or providing new resources for private use”. Following the existing study from Ross and Hahn (2017), this study attempts to examine consumers' collaborative consumption intention using TPB model.

Theory of Planned Behavior

This study applies the TPB model developed by Ajzen (1991) to examine the factors drive consumers towards collaborative consumption intention in Malaysia. The TPB model has been widely applied throughout various social behavioral studies in explaining consumers' behavioral intention related to sustainable behavior (Nejati et al., 2011; Hassan et al. 2016; Toni et al., 2018; Yadav & Pathak, 2018, Chuah & Lu, 2019, Nekmahmud & Fekete-Farkas, 2020). Thus, CC can be considered as a behavioral sustainable decision. TPB postulates that an individual's behavioral intention to perform a behavior is determined by three precedents, incorporating attitude towards the behavior, subjective norms, and perceived behavioral control. TPB model has been applied to understand a variety of pro-environmental behavior such as green purchasing. The subsection below will explain the behavior, subjective norms, and perceived behavioral control in details. Figure 1 illustrates the conceptual framework of the study based on TPB model. The explanation of each variable in the conceptual framework will be discussed in details.

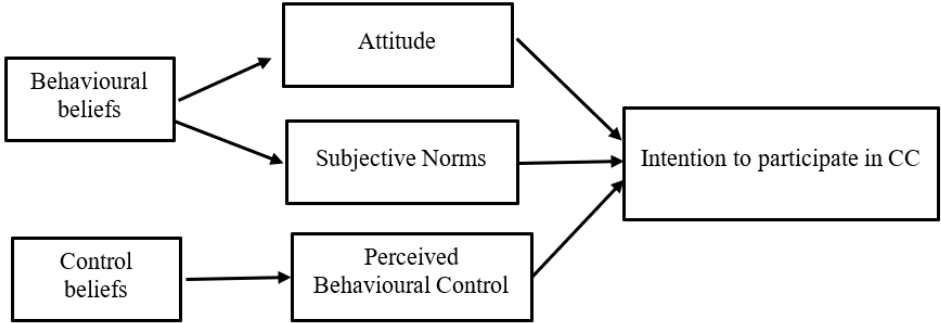


Figure 1. Conceptual framework adapted from Ajzen (1991) and Hassan et al. (2016)

Attitude towards behavior

Attitude towards behavior is referred as an individual’s evaluation of the performance of a behavior (Ajzen & Fishbein, 1980). Past studies found significantly positive impact of attitude toward CC on intention to participate in CC (Hamari et al., 2015; Gürce, & Karadeniz, 2020; Ross & Hahn, 2017). Attitude-behavior gap issue has been observed by past studies that in fact consumers’ environmental ethical aspirations may not diffuse into their sustainable behavior (Bray et al., 2011; Phipps et al, 2013; Vermeir & Verkebe, 2006). Hamari et al. (2015) argued that technologically facilitated CC may coordinate collaborative activities more efficiently through dynamic communication between providers and receivers in the CC process. They found attitude toward was positively influences behavioral intention to participate in CC in Finland. Ross and Hahn (2017) and Toni et al. (2018) also found significant positive impact of consumers’ attitude towards CC on consumers’ intention to participate in CC.

H₁: Consumers' attitudes towards CC positively influences behavioural intentions to participate in CC.

Behavioral belief

According to TPB model, attitudes is determined by accessible behavioral belief. Behavioral belief is referred as beliefs about the probability consequences of the behavior and subjective evaluation of the expected consequences (Ajzen, 2006). According to Ross and Hahn (2017), the five common behavioral beliefs are cost savings, environmental protection, dependency on others' behavior, efficient use of resources, and community with others. *Economic benefits or cost savings* has been identified as a determining factor for CC. In past studies, economic factors such as financial benefits, cost consciousness, and the need for cheaper alternatives is one of the concerns by consumers to participate in CC neither through monetized or non-monetized platforms (Ross & Hahn, 2017; Bucher, Fieseler & Lutz, 2016; Hamari et al., 2015; Tussyadiah, 2015; Ebrahimi et al., 2022; Soleimani et al., 2022). Bostman & Rogers (2011) asserted that cost incurred in collaborative consumption is lower than non-collaboration preference. To such an extent CC involves lower cost of transaction, to improve financial agility and to monetize excess or idle inventory are some of the forces driving consumers' to consume collaboratively (Ross & Hahn, 2017). Bardhi and Eckhardt (2012) found that economic concern is one of the factors driven car sharing among individuals. Ross and Hahn (2017) findings support the significant effect of cost savings on attitude towards CC. However, Hamari et al. (2015) found that economic benefits has no significant effect on attitude towards collaborative consumption. Bostman and Rogers (2011) advocate *environmental*

concern is a determinant of CC. This statement was supported by empirical studies on the significance of environment concern as a key factor that drives CC and sharing economy (Prothero et al., 2011; Tussyadiah, 2015). Hamari et al. (2015) found sustainability is a crucial determinant of consumers' attitudes towards CC. Participating in CC through online platforms is likely expected to be influenced by configuration of individual's attitude ecologically sustainability and greener principles and socio-economic concerns (Hamari et al., 2015). Hamari et al. (2015) found significantly positive effect of sustainability on attitude towards CC. However, Ross and Hahn (2015) found no significant effect of environmental protection on attitude towards collaborative consumption. *Dependency on other's behavior* refers to a potential detriment of CC which is lack of trust between peer-to-peer in the collaborative activities. This occurrence was emphasized by Bostman and Rogers (2011) on the need of trust between collaborative consumers to overcome the anxiety of others' unfavourable behavior. Trust is highly relevant for CC in business-to-consumer and peer-to-peer community sharing platforms (Möhlmann, 2015, Hoffmann et al, 2017; Kim, Yoon & Zo, 2015) as consumers are dealing with strangers in conducting collaborative transaction. *Efficient use of resources* refers as one means to achieve the goal of environment protection. Ross and Hahn (2017) found that efficient use of resources was significantly related to consumer's attitudes towards CC. Community with others has been recognized as a determinant of collaborative consumption in past literature (Albinsson & Perera, 2012; Bostman & Rogers, 2011). CC can provoke societal change from individualism to local community with greater social bonding (Barnes & Mattsson, 2016). Ross and Hahn (2017) findings showed sig-

nificant relationship between community and attitudes towards CC. Following the above propositions, the hypotheses proposed in the study are as follows:

H_{1a}: Cost savings positively influences attitude towards CC.

H_{1b}: Environmental concern positively influences attitude towards CC.

H_{1c}: Efficient use of resources positively influences attitude towards CC.

H_{1d}: Community with others positively influences attitude towards CC.

H_{1e}: Dependency on others negatively influences attitude towards CC.

Subjective norms

Subjective norms (SN) is defined as the social pressures endeavour by an individual when participate in a particular behaviour. SN are the results of beliefs about significant on others normative expectation and the motivation to act in accordance with them. Ross and Hahn (2017) found significant effect of SN on participation of collaborative consumption in Finland. Toni et al. (2018) findings support the significant influences of SN on behavioural intention to participate in CC. By studying users' perception towards sharing services, Kim et al. (2018) SN was found significantly influenced the behavioural adoption intention. However, Cheung & Vogel (2013) found that SN has no significant effect on usage intention for blog users. Thus, the following hypotheses is proposed:

H₁: SN positively influences behavioural intentions to participate in CC.

Perceived Behavioural Control

Perceived behavioural control (PBC) refers to the perceived ease or difficulty of performing a behaviour (Ross & Hahn, 2017). It indicates how individuals assess the extent of their perception towards an issue or behaviour. As collaborative practices are highly mediated with the use of technology, consumers might be to lack of full volitional control over CC in most situations (Ross and Hahn, 2017). Knowledge about information and communication technology, as well as the ability and time spend to manage process in CC (e.g., the time involved in arranging the swap of goods) has been identified as important personal and external factors (Belk, 2014b; Bostman & Rogers, 2011). As these factors are beyond someone's volitional control (Ross and Hahn, 2017), thus are incorporating as PBC factors.

H₃: PBC positively influences behavioural intentions to participate in CC.

Control Beliefs

In TPB model, PBC is determined by control beliefs measures, is referred as belief about the presence of internal and external factors that may facilitate or impede performance of the behaviour. According to Ross and Hahn (2017), the five common behavioral beliefs are ease of use, availability of products and services, internet access, high geographic density (of CC options), and transparent information about offering. *Ease of use* is one of the determinants in Technology Adoption Model proposed by Davis (1989) and has been widely applied in information system research to investigate the level of consumers' technology usage. It is a relevant stream of research model to be applied as CC involved the application of technology, particularly

the use of internet, smart phones, and social networks (Ross & Hahn, 2017). Perceived ease of use is defined as “the degree to which a person believes that using [a new technology] would be free of effort” (Davis, 1989, p. 320). The ease of use of an apps or social networks in mediating the collaboration-based organisations and peer-to-peer online platform may encourage CC. *Availability of products and services* underlined that it is crucial for collaboration-based organisations and peers to deliver what is needed, when it is needed, and where it is needed to fulfil consumers’ needs. Bostman and Rogers (2011) assert that a critical number of consumers is required to uphold the match of collaborative supply and demand between the providers and receivers. Barnes and Mattson (2016) has identified *internet access* as a vital factor for CC as it is one of the needed technologies. This is an important factor, particularly, developing countries with relatively low internet coverage across the country may affect the effectiveness of the CC online services. *High geographic density of collaborative consumption options* refers to the belief that urban areas with high density population tend to engage high numbers of collaborative consumers in CC. Bardhi and Eckhardt (2012) found that access-based CC gain more responses in an urban area because of natural space limitation. Urban residents are facing problems such as limited parking and storage space for vehicles or other resources tend to encourage them to change consumption patterns by renting, borrowing, or swapping the assets they need with temporary ownership. The importance of the determinant of consumer behaviour for *transparent information about offerings* has been highlighted by Clemons (2008). Consumers prefer organizations that provide transparent information

than those that provide limited information that is difficult to access. Transparent information regarding the collaborative transaction such as condition of products offers, the payment structure, and etc.

Following the above propositions, the following hypotheses were hypothesised:

H_{3a}: Ease of use positively influences attitude towards CC.

H_{3b}: Availability of products and services positively influences attitude towards CC.

H_{3c}: Internet access positively influences attitude towards CC.

H_{3d}: High geography density positively influences attitude towards CC.

H_{3e}: Transparent information about offerings positively influences attitude towards CC.

Methodology

A self-administered survey was adopted to collect quantitative data to measure the effects of exogenous variables on collaborative consumption intention among the consumers in Klang Valley, Malaysia. Data were collected through non-probability purposive sampling methods on those involve with CC. Prior to this, a pilot test were conducted on a purposive sample of respondents at faculty members to test the reliability and validity of the questionnaire. Results of the pilot test on the questionnaire are shown reliable and valid. The sample size was computed using G*Power version 3.1 (Faul, et al., 2007; Moghaddamzadeh et al., 2020; Ebrahimi et al., 2021). According to Cohen (1992), the values of statistical power of 0.95 (recommended more than 0.80 for social and behavioural science research) with an effect size of

0.15, a sufficient sample size of 138 is needed for five predictors. Furthermore, Chin (2010) proposed adequate sample size for partial least squares–structural equation modelling analysis is between 100 to 200 data. The sample size of this study is more than the minimum requirement.

The constructs' measures in this study were adopted from Ross and Hahn (2017). Intention to consume collaboratively, attitude toward collaborative consumption, subjective norms and perceived behavioural control over collaborative consumption were measured by 3 items, 6 items, 4 items, and 3 items, respectively. All items are measured with 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Web-Power online tool was applied to examine the multivariate normality test. The Mardia's multivariate skewness and kurtosis analysis coefficients were less than 0.05, indicating that data in the study is multivariate non-normality. Structural equation modelling–partial least squares (PLS-SEM) was applied to test the hypotheses via SmartPLS version 3.2.8 (Ringle et al., 2015; Rahman et al., 2022). The analysis of PLS–SEM includes measurement model (validity and reliability) and structural model (testing the relationship between variables).

Data Analysis

The measurement model was evaluated by measuring the convergent validity and discriminant validity measures. The convergent validity measures of average variance extracted (AVE) of the constructs and the factor loadings were shown in Table 3. The values of factor loadings > 0.708 , AVE > 0.5 , and CR > 0.7 , indicating that all measures are valid and reliable.

Table 3. Measurement model

Construct	Items	Loadings	AVE	CR
Cost savings	CS1	0.904	0.809	0.894
	CS2	0.895		
Environmental Concern	EP1	0.945	0.866	0.928
	EP2	0.915		
Efficient use of resources	EUR1	0.94	0.867	0.929
	EUR2	0.922		
Community with others	CWO1	0.923	0.923	0.907
	CWO2	0.899		
Dependency on others' behaviour	DOB1	0.714	0.747	0.852
	DOB2	0.992		
Ease of use	EOU1	0.921	0.844	0.915
	EOU2	0.916		
Availability of products and services	AOPS1	0.959	0.914	0.955
	AOPS2	0.953		
Internet access	IA1	0.938	0.881	0.937
	IA2	0.939		
High geographic density	HGD1	0.958	0.92	0.959
	HGD2	0.961		
Transparent information about offerings	TI1	0.951	0.895	0.944
	TI2	0.94		
Attitude	ATT1	0.871	0.808	0.944
	ATT2	0.905		
	ATT3	0.906		
	ATT4	0.914		
Subjective norms	SN1	0.754	0.6	0.857
	SN2	0.81		
	SN3	0.798		
	SN4	0.734		
Perceived behavioural control	PBC1	0.822	0.682	0.866
	PBC2	0.842		
	PBC3	0.815		
Behavioural Intention	INT1	0.881	0.831	0.936
	INT2	0.937		
	INT3	0.916		

The discriminant validity was examined by HTMT criterion (Henseler et al., 2015). The correlation values between constructs were less than 0.85 threshold (Kline, 2011), indicating that discriminant validity is established (Table 4).

Table 4. HTMT Criterion

Construct	AOPS	ATT	CS	CWO	DOB	EOU	EP	EUR	HGD	IA	INT	PBC	SN	TI
AOPS														
ATT	0.373													
CS	0.556	0.533												
CWO	0.533	0.431	0.573											
DOB	0.254	0.151	0.489	0.401										
EOU	0.766	0.494	0.693	0.796	0.415									
EP	0.578	0.408	0.848	0.497	0.565	0.627								
EUR	0.561	0.400	0.690	0.720	0.510	0.615	0.744							
HGD	0.539	0.412	0.545	0.397	0.510	0.622	0.543	0.396						
IA	0.626	0.367	0.720	0.445	0.406	0.595	0.646	0.603	0.540					
INT	0.404	0.798	0.487	0.455	0.220	0.590	0.397	0.365	0.436	0.348				
PBC	0.496	0.631	0.709	0.554	0.316	0.739	0.585	0.501	0.562	0.626	0.739			
SN	0.393	0.552	0.458	0.465	0.253	0.568	0.378	0.409	0.486	0.376	0.583	0.765		
TI	0.631	0.384	0.640	0.421	0.466	0.671	0.635	0.521	0.756	0.655	0.419	0.591	0.343	

Structural Model

Prior to evaluating the structural model, variance inflation factor (VIF) is examined to check out the collinearity issue. All constructs’ VIF values in the study were lower than 5, implying no presence of lateral multicollinearity issue as shown in Table 5. The structural model on the hypotheses developed were assessed via a bootstrapping procedure with a resample of 5,000 (Hair et al., 2017) for the study’s research model path coefficients, t-values, p-values and R². Table 6 presents hypotheses testing results for the proposed hypotheses H₁, H₂, and H₃.

Table 5. Lateral Collinearity Assessment

Construct	ATT	PBC	INT
CS	2.519		
EP	2.922		
EUR	2.179		
CWO	1.603		
DOB	1.274		
EOU		2.050	
AOPS		2.086	
IA		1.712	
HGD		2.014	
TI		2.365	
ATT			1.479
SN			1.689
PBC			1.821

Table 6. Structural model: Hypothesis Testing

	Relationship	Std Beta	Std. Error	t-value	p-value	BCILL	BCIUL	Decision	f²
H ₁	ATT -> INT	0.539	0.063	8.545	0.000	0.429	0.633	Supported	0.501

H ₂	SN -> INT	0.068	0.055	1.237	0.108	-0.024	0.152	Not Supported	0.007
H ₃	PBC -> INT	0.291	0.062	4.670	0.000	0.193	0.395	Supported	0.118
H _{1a}	CS -> ATT	0.329	0.088	3.720	0.000	0.190	0.473	Supported	0.057
H _{1b}	EP -> ATT	0.014	0.096	0.143	0.443	-0.167	0.146	Not Supported	0.000
H _{1c}	EUR -> ATT	0.073	0.082	0.894	0.186	-0.046	0.213	Not Supported	0.003
H _{1c}	CWO -> ATT	0.192	0.087	2.200	0.014	0.056	0.350	Supported	0.030
H _{1d}	DOB -> ATT	-0.054	0.140	0.386	0.350	-0.289	0.186	Not Supported	0.003
H _{3a}	EOU -> PBC	0.417	0.082	5.060	0.000	0.280	0.541	Supported	0.148
H _{3b}	AOPS-> PBC	-0.107	0.079	1.347	0.089	-0.243	0.022	Not Supported	0.010
H _{3c}	IA -> PBC	0.254	0.056	4.488	0.000	0.163	0.347	Supported	0.065
H _{3d}	HGD -> PBC	0.123	0.085	1.452	0.074	-0.014	0.271	Not Supported	0.013
H _{3e}	TI -> PBC	0.081	0.066	1.215	0.113	-0.022	0.189	Not Supported	0.005

The path coefficient results show that out of the three hypotheses developed on the direct relationship of CC behavioural intention only two hypotheses were found to be significant. Attitude towards CC had a positive significant effect on intention to consume collaboratively (H₁: $\beta = 0.539$, $t = 8.545$, $p < 0.01$) with the f^2 value of 0.501 indicating a strong effect of attitude toward collaborative consumption on intention to consumer collaboratively. The findings indicated that SN did not has significant effect on collaborative consumption intention (H₂ $\beta = 0.068$, $t = 1.237$, $p > 0.05$). The f^2 value of 0.007 indicated a nearly zero effect of SN on intention to consumer collectively. PBC was found significant positively effect on intention to consumer collectively (H₃: $\beta = 0.291$, $t = 4.670$, $p < 0.01$). The f^2 value of 0.118 indicated a small to medium effect of PBC on intention to consumer collectively. Thus, only H₁ and H₃ were supported. The R² value of 0.608 showed that 60.8% of the variance in intention to participate in CC was explained by attitude towards CC, SN, and PBC.

For the relationship between the five constructs of behavioural beliefs and attitude towards CC, two statistically significant positive relationships

were supported by data. Cost savings (H_{1a} : $\beta = 0.329$, $t = 3.720$, $p < 0.01$) and Community with others (H_{1d} : $\beta = 0.192$, $t = 2.200$, $p < 0.01$) with f^2 values of 0.057 and 0.030, respectively indicating small effects on attitude towards CC for both constructs. While, hypotheses H_{1b} , H_{1c} , and H_{1e} , construct behavioural beliefs of Environmental concern, Efficient use of resources, and Dependency on others' behaviour were found not significantly influence attitude towards CC. The R^2 value of 0.243 showed that 24.3% of the variance in attitude towards CC was explained by cost savings, environmental concern, efficient use of resources, community with others and dependency on others' behaviour.

Two of the control beliefs were found to have a significant and positive influence PBC which are Ease of use (H_{3a} : $\beta = 0.417$, $t = 5.060$, $p < 0.01$), and Internet access (H_{3c} : $\beta = 0.254$, $t = 4.488$, $p < 0.01$). Thus, only hypotheses H_{3a} and H_{3c} were supported. Based on the data, H_{3b} , H_{3d} , and H_{3e} were rejected as constructs of Availability of products and services, High geographic density, and Transparent information about offerings were found have insignificantly effect on PBC. The R^2 value of 0.426 showed that 42.6% of the variance in PBC was explained by ease of use, availability of products and services, internet access, high geographic density and transparent information about offerings.

The predictive relevance was tested using the blindfolding procedure with an omission distance of 7, The Q^2 values of 0.183, 0.273, and 0.497 indicated that attitude toward collaborative consumption, subjective norms and perceived behavioural control had a strong predictive relevance for collaborative consumption intention.

Discussion

This study examines the relationship between intention to participate in CC and antecedents of intention (attitudes, subjective norms, and perceived behavioural control) in the TPB model by including the underlying behavioural and control beliefs in the proposed empirical model, in light of empirical evidence from Malaysia. This study contributes to literature with a better understanding and uptake of consumers' participation behaviour in collaborative economy.

The findings indicated that attitudes towards CC and PBC were found statistically significant and positively influence the intention to participate in CC, which was in line with past studies (Ross and Hahn, 2017; Kim et al., 2018; Toni et al., 2018). The notion is a more positive attitude towards CC would lead to higher participation in CC and PBC is applicable to the domain conscious decision-making by consumers to participate in CC activities as in the TPB model.

SN which is referred to as the perceived social demand to perform a particular behaviour was found not significant in influencing consumers' intention to participate in CC was similar with findings of some current studies in the context of behavioural intention in green and sustainable consumption in developing countries (Kumar, Manrai & Manrai, 2017; Tafique & Vaithanathan, 2018). A relatively insignificant effect of SN on behavioural intention was found by some past studies in the theory of planned behaviour model (Trafimow & Finlay, 1996; Cialdini & Trost, 1998) with the argument that SN was more related to the individuals who could ingress the collective self in a significant way. The collective self relies on an interpersonal relationship with others that is attained from common and symbolic identification with a

group (Sedikides, 1993). This indicates that the distinction between collectivism and individualism is becoming blurred in countries with progressive changes of consumption pattern and behavioural tendencies due to access to information and resources as economic conditions improved (Kumar et al., 2017); and the argument that personal norms related to the environment have a predictive effect than subjective norms (Bamberg & Möser, 2007; Stern, 2005) on behavioural intention. The individualism may maximize personal seeking and norms not having a meaningful effect may be due to the weak relation between people within the community (Hamari et al, 2015).

The findings revealed that behavioural belief of cost savings and community with others have significant influence on attitude towards CC, which in line with Ross and Hahn (2017). This empirically support the argument that CC is primarily determined by economic motives (Bardhi & Eckhardt, 2012, Belk, 2014, Owyang et al., 2013, Bucher et al., 2016; Dana et al., 2022) and utility motive (Benoit et al., 2017) as the collaborative business models is community-driven purpose by creating connections between people through sharing consumption. On the other hand, efficient use of resources, environmental concern, and dependency on others' behaviour were not reflected by consumers' behavioural beliefs underlying their attitude towards CC. This is due to the low level of environmental concern and lack of trust on strangers that limit consumers to participate in CC. Environmental benefits were found not as a significant factor driven CC by some past studies (Habibi et al, 2016; Möhlmann, 2015; Davlembayeva, Papagiannidis, & Alamanos, 2020). The environment awareness level not motivate consumers to practice pro-environmental dan suitability behaviour among Malaysians. This perhaps

most Malaysians treat CC services as a profit-oriented business thus pro-environmental values are not central for compensated practice (Möhlmann, 2015; Davlembayeva, Papagiannidis, & Alamanos, 2020).

The external factors internet access and ease of use were reflected by consumers' control beliefs underlying their PBC. CC activities were mainly mediated by the widespread of Internet and Web 2.0 (Belk, 2014) with the application of mobile apps. The ease of use of the technology and/ or Internet access allows and encourages consumers to participate in CC. The underlying control beliefs factors availability of products and services, high geographic density and, transparent information about offerings were not reflected on PBC. The insignificant availability of products and services, and transparent information about offerings were consistent by Ross and Hahn (2017). Consumers are not willing to accept potential risks that may occur in CC indicating that they lack social trust for consumers in dealing with strangers.

Conclusion and Recommendations

This study confirmed the TPB theory by addressing the new consumption pattern on consumers' intention to consume collectively in Malaysia. The results of the study can be considered to consolidate the behaviour of CC by understanding more of consumer behaviour towards CC. Findings of the study provide an important insight to the sharing service providers to promote the use of products based on CC and further improve the uptake of CC in Malaysia. The study also provides some meaningful anchors for actions. Firstly, PBC was found determined by the ease of use and internet access to consume collaboratively, and attitude towards CC was determined by cost

saving and community with others. This indicates that CC was driven by economic motives and the desire for social community in the society. Secondly, policy makers need to improve the connectivity to the internet access and services provider has to create easy use of the technology applications in order to improve the uptake of CC in Malaysia.

Limitation and Future Study

This study is a cross-sectional study which examines individual's logical and reasoned factors to participate in CC based on TPB model. Future comparative studies can be extended to examine consumers' CC participation by looking into the changes of consumers' consumption practices or preferences towards more collectively in the sharing economy environment. Furthermore, other multiple factors influence the CC participation such as intrinsic and extrinsic motivation, ethical practices, personal norm should be included in the model of future study to provide comprehensive insights on consumers' perception towards CC and engage with it.

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