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Unpacking the Underpinnings of Collaborative Consumption in Central Asia: Perspectives from Kyrgyzstan

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Abstract

We investigate the motivators behind collaborative consumption in Kyrgyzstan by applying the theory of planned behaviour. Through examining 308 responses gathered from an online survey, we assess the connections between the intention to engage in collaborative consumption and influential factors. Our results reveal that attitude, perceived behavioural control, and subjective norms are the most influential predictors, with their impact ranked in descending order. Consequently, we delve into the theoretical and practical implications of these emerging collaborative practices and business models in Kyrgyzstan.

Keywords: collaborative consumption, theory of planned behaviour, attitudes, perceived behavioural control, subjective norms, behavioural intention, Kyrgyzstan.

Introduction

Collaborative consumption (CC) stands as a fundamental practice within the relatively recent realm of exchange modes that seek to redefine sharing in the context of peer-to-peer marketplaces (Luri Minami et al., 2021). The development of CC has been greatly accelerated by the widespread adoption of information and communication technologies in general (Hamari et al., 2016) and mobile applications for smart devices in particular (Chen et al., 2022). Despite the overlap and inherent confusion in the terminology used to characterise these models (e.g., gig economy, platform economy, peer-to-peer economy (Selloni, 2017)), CC can be distinguished as a unique approach within the broader spectrum of sharing economy practices. This distinctiveness arises from CC's adoption of a triadic sharing exchange model, which is defined by several key factors: the degree of ownership transfer (including no ownership transfer at all (Belk, 2014)), the various forms of compensation (with monetary transactions being the most common but not the exclusive mode) and lastly, the use of a market mediation mechanism (Benoit et al., 2017).

CC has undergone extensive examination in recent years (Mont et al., 2020; Wei et al., 2021), leading to the gradual identification and categorisation of more detailed typologies within the literature. These typologies encompass various forms of sharing, such as altruistic, genuine, complementary, and commercial sharing, as well as activities like swapping and resale (Khalek & Chakraborty, 2023). Notably, CC can be distinguished from access-based consumption models, and aligns more closely in conceptual terms with communal styles rather than consumerist approaches (Guyader, 2018). This distinctive positioning has sparked significant interest among both business and sustainability experts. They are keen to comprehend how the scalability of such models can support business practices, such as e-commerce (Shang & Wu, 2022), while concurrently pursuing environmentally conscious strategies. The ideal coordinates of CC should foster a culture of resource-efficient consumption (Leismann et al., 2013), and should even potentially integrate art into the equation (Quach et al., 2022).

Most empirical studies of CC have primarily focused on Western countries (e.g. US, (Albinsson et al., 2019); Germany, (Bäro et al., 2022); Finland, (Lindblom & Lindblom, 2017); Australia, (Mahadevan, 2018)) and, generically, the Global North (Mont et al., 2020). Another stream of significant applications has appeared in relation to China as the second most examined region

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(Ni, 2021). From these reference points, we see that there is a growing trend nowadays towards understanding whether the initial patterns identified in CC practices mostly in high-income countries also fit the behaviour of consumers and producers from other parts of the world. To that purpose, we find more evidence from emerging markets like India (Albinsson et al., 2019; Kahraman et al., 2023), Malaysia (Chuan et al., 2022), Egypt (Elnadi & Gheith, 2022) or Southeast Asian cities (Retamal, 2019), to mention a few. Authors highlight distinct patterns in emerging markets, from different approaches to the digital economy (e.g. concomitant with industrialisation, (Ma & Zhu, 2022) to less strong market institutions (e.g. legal frameworks on property rights, (Chen & Wang, 2019). Indeed, a country's level of economic development plays a significant role in influencing the adoption of CC (Ashaduzzaman et al., 2022), while in turn, CC activities tend to promote the sustainable growth of the economy (Hussain et al., 2023). However, this economic factor is not a singular force, as it operates in conjunction with cultural influences, such as individualism and collectivism (Ianole-Călin et al., 2020). Acknowledging these influences makes a significant contribution to the traditional frameworks used to explore individual motivations (e.g., the most employed are the theory of planned behaviour, value-belief-norm theory, and social exchange theory), along with recognising the role of trust (e.g., next to the liability of newness and consumer innovativeness, trust is a main driver of the competitiveness of sharing economy companies in emerging markets, (Maalouf et al., 2020)), and of the specific trust-building mechanisms noticed in emerging markets (e.g., self-ownership, sharing firms as highly integrated service providers, (Chen & Wang, 2019)). Therefore, there is a certain degree of empirical validation for classical models, while recognising that further research is needed to construct a more comprehensive perspective on how CC functions beyond the established core of global economies.

An intriguing area for investigation lies in post-communist economies (Andrei & Zait, 2018), given their distinct interpretation of communal consumption from their recent history of enforced sharing, but also of particular representations of trust and solidarity in general (Harkness et al., 2022).

To address this gap in consumer research, we present data gathered from the former Central Asian Soviet Republic of Kyrgyzstan. Our goal is to assess the extent to which CC can be comprehended within the framework of the theory of planned behaviour (TPB) in a sample of non-WEIRD (western, educated, industrialised, rich, and democratic) participants. Kyrgyzstan's cultural identity is forged at the confluence of Kyrgyz, Russian, Western, and global influences, rendering it a particularly intricate and intriguing subject of study.

Namely, Kyrgyzstan is an exciting case study for CC from multiple perspectives. The first stems from the country's historical legacy. Kyrgyzstan's extended period as part of the Soviet Union has left various socio-economic remnants, including lesser-known sharing economy practices like "Chornaya Kassa" (CHK), meaning "black cashbox" in Russian, and "Sherine," which translates to "treat" in the Kyrgyz language (Kuehnast & Dudwick, 2004). Naturally, this raises the question of whether these practices have evolved into contemporary technological forms and whether their historical presence has fostered greater familiarity with CC. Second, adopting a path-dependent approach, Kyrgyzstan has a substantial informal economy, accounting for an average of 38.4% of the country's official GDP from 1999 to 2015 (Schneider, 2016). This translates into a significant share of informal workers, comprising roughly one-third of the country's 8.5 million-strong working population (Mussurov et al., 2019). Considering the association between the gig economy and informal self-employment (MacDonald & Giazitzoglu, 2019), there is heightened interest in understanding how the population has integrated CC practices, either formally or informally, within a regional context where informality is often viewed as a means of "bypassing the state" (Polese, 2023). Despite the potential negative connotations of informality (e.g., post-Soviet Central Asian countries are sometimes perceived as kleptocracies (Weng et al., 2020)), the focus on Kyrgyzstan also presents a positive perspective. The country is regarded as relatively more liberal compared to its neighbouring nations such as Kazakhstan, Uzbekistan, and Tajikistan. Engvall (2016) actually introduces the "state-as-an-investment-market" as a label (Engvall, 2016) to characterise the special type of socio-political order encountered in Kyrgyzstan, beyond the common evaluation of endemic corruption. Third, the religious aspect is another crucial factor to consider. Sunni Islam is the predominant religion in Kyrgyzstan, with over 80% of the population adhering to this faith.

Previous studies in Indonesia have explored the impact of religious obligations and Islamic values on consumer motivations within the sharing economy, indicating their significant influence on dimensions like self-fulfilment from doing good deeds, or on being self-aware of the potential unjust or exploitative benefits integrated within such service actions (Weng et al., 2020). Therefore, considering the potential interactions between the sharing economy approach and religious beliefs in Kyrgyzstan adds an important layer to understanding CC adoption. Last but not least, the rise of e-commerce platforms in the wake of the Covid-19 pandemic has amplified transformations in existing business models, including the levels of bazaars and local entrepreneurship initiatives (Eggart, 2023). Therefore, there is not only the matter of adopting or rejecting CC practices, but also of integrating them within a new wave of socio-economic and technological practices.

The remainder of this paper is structured as follows: the literature review offers an overview of TPB applications within the broader context of online consumption and e-commerce. We specifically highlight insights derived from studies focused on CC and we adapt the classical TPB hypotheses, while proposing additional hypotheses that account for the role of various control variables. In the method section, we describe the particulars of our sample and our analytical approach. Our dataset comprises responses from 308 participants in Kyrgyzstan and we employ a partial least squares structural equation modelling (PLS-SEM) technique to examine and evaluate our hypotheses. We conclude by delving into the implications of our findings for researchers and managers, shedding light on the practical applications of our research. We also mention the limitations encountered during the study and identify potential avenues for future research.

Literature Review

Theoretical Framework

The Theory of Planned Behaviour (TPB) stands as a robust conceptual framework widely utilized in numerous studies of consumer behaviour. Substantial evidence supports its applicability in elucidating online consumption patterns (Ajzen, 1991, 2020; George, 2004; Lim & Dubinsky, 2005; Roşu et al., 2021)1985, Ajzen, 1987 and the adoption of electronic commerce technologies (Lim & Dubinsky, 2005; Pavlou & Fygenson, 2006; Roşu et al., 2021).

TPB's popularity and established relevance is also recognized in research pertaining to CC (Kim et al., 2018; Lindblom et al., 2018). Aggregated findings consistently highlight attitude as a significant positive determinant influencing CC intentions and behaviours (Ashaduzzaman et al., 2022). This reaffirms the well-established prominence of attitude as a predictive factor within the realm of consumer research (Chang et al., 1996).

In addition to attitude, classical TPB delves into the roles of subjective norms and perceived behavioural control (Ajzen, 1991) when predicting behavioural intention. In this context, intention represents a form of conscious motivation that encourages individuals to exert the necessary effort to engage in a specific behaviour (Dutta, 2009).

One of the significant strengths of TPB lies in its flexibility, which allows for the inclusion of other factors in the explanatory framework, leading to the development of various extended TPB models (Mao & Lyu, 2017; Phuphisith & Kurisu, 2022; Roos & Hahn, 2019). While these extensions indeed enhance the explanatory capacity of the models, it is essential to note that the core variables of TPB consistently rank among the top three best predictors identified in the literature concerning sharing intentions. This determination is based on the logic of relationship constructs, taking into account factors that have been examined extensively (more than five times) and have consistently demonstrated a substantial influence (with a resultant value exceeding 0.80) (Baptista & Oliveira, 2016). More specifically, these core variables are attitude, perceived behavioural control, and subjective norms, with attitude being the most crucial predictor, followed by perceived behavioural control and then subjective norms (Akande et al., 2020). In this vein, we argue that it is of great importance to apply a core theoretical model (e.g. TPB) and conduct an initial parsimonious evaluation of a phenomenon (in our case CC perceived by Kyrgyzstani participants) before

examining theoretical extensions that are hard to justify at this point. For example, there are cases where extensions are favoured, as a practice, because they are associated with novelty, but some may only provide marginal insights, at best: *"TPB is alive and well and gainfully employed in the pursuit of a better understanding of human behaviour"* (Ajzen, 2015).

Hypotheses development

The primary and most influential component of TPB is attitude (ATT). Attitudes typically encompass an individual's beliefs about the likely outcomes of a particular action. These beliefs incorporate expectations, including perceived attributes, benefits, and barriers when contemplating the adoption of a new product or service (Becker-Leifhold, 2018).

In the case of CC, which encompasses various types of behaviours such as peer-to-peer accommodation, shared cars, and shared goods, empirical evidence indicates that maintaining a generally positive attitude towards CC predicts intentions to engage in a broader spectrum of these activities. Conversely, a negative attitude towards CC tends to decrease participation in such activities (Ni, 2021).

Subjective norms (SN) broaden the perspective by involving the evaluation of third parties who hold significance in an individual's life. Given that many collaborative consumption (CC) activities are often observable within one's social group, it is logical to assume that the social environment plays a crucial role in shaping the behavioural intention to engage in CC. Their positive influence has been well-documented in various contexts, including shared and sustainable mobility choices (Nogueira et al., 2023), online car-hailing services (Huang et al., 2021), and activities like borrowing books and swapping clothes (Roos & Hahn, 2019).

The influence of subjective norms can vary depending on the reference group in question. Evidence suggests that in certain settings, such as student environments (e.g., car sharing among Chinese college students (Zhang & Li, 2020)) or smaller, closely-knit communities (e.g., reference groups tied to specific places like neighbourhoods (Fornara et al., 2020), subjective norms tend to have a more pronounced impact. This influence extends even to communities formed in virtual environments, such as shopping reference groups (Pentina et al., 2008).

Perceived behavioural control (PBC) serves as the third key element in the traditional TPB model, representing an individual's perception of the level of difficulty or ease associated with a specific behaviour. It also encompasses factors that can potentially impact an individual's ability to engage in a particular behaviour, effectively granting them control over that behaviour.

For instance, research has demonstrated that PBC is a significant determinant, even for relatively new services like bike sharing within the context of collaborative consumption (CC) (Richard et al., 2010; Yu et al., 2018). This highlights the importance of PBC in shaping intentions and behaviours, even in the case of emerging and innovative services;

In line with these facts, proven valid in a wide range of CC behaviours and populations, we assume that the following hypotheses will also hold for the case of Kyrgyzstan.

H1: Attitudes are positively related to the behavioural intention to consume collaboratively.

H2: Subjective norms are positively related to the behavioural intention to consume collaboratively.

H3: Perceived behavioural control is positively related to the behavioural intention to consume collaboratively.

In terms of control variables, we considered a set of socio-demographic characteristics commonly examined in similar research contexts. Gender differences in CC participation have been subject to mixed findings, with references made to differences in information processing and risk aversion in online consumption (Richard et al., 2010). However, due to the multitude of interpretations and some conflicting results (e.g., arguments suggesting that women tend to choose greener and more sustainable options (Mahadevan, 2018), alongside studies reporting both higher (Hellwig

et al., 2015) and lower (Bäro et al., 2022) engagement of women in CC compared to men), we were unable to identify a clear and consistent pattern for such gender differences. Therefore, we decided to formulate a hypothesis suggesting that there are no significant gender differences in CC participation.

Regarding age, there appears to be a widespread consensus that younger consumers, particularly those from generations Y and Z, exhibit a heightened interest and intention to participate in CC activities. This trend reflects a generational shift with younger individuals showing greater enthusiasm for CC experiences (Godelnik, 2017; Ianole-Călin et al., 2020; Martínez-González et al., 2021).

In the context of employment, the sharing economy paradigm has generated significant debate, weighing positive aspects such as increased job opportunities against negative effects, including heightened job insecurity and informal work practices (Mațcu et al., 2022). While we refrain from delving into this contentious debate, we do incorporate the common observation that groups not currently employed, encompassing various forms of employment status such as standard unemployment, informal employment, temporary work, or parental leaves of absence, tend to be more inclined to engage in CC activities (Lindblom & Lindblom, 2017).

Considering the number of members in a household as a predictor of CC engagement is justified by the fundamental meaning of CC, which revolves around the importance of sharing as a central behaviour in one's life. In this context, we have found evidence suggesting that individuals from larger families often exhibit stronger social value orientations due to their frequent interactions within the household, which naturally involve the sharing of resources (Van Lange et al., 1997).

Finally, we considered income as a relevant predictor given economic motives consistently hold significant weight in studies examining participation in CC activities (Albinsson et al., 2019; Luri Minami et al., 2021). Having more money fuels both supply and demand for CC (e.g. owning more goods to share, being more aware of alternative online platforms for shared consumption, (Bäro et al., 2022)).

Given the rationale above, our hypotheses concerning the control variables are as follows:

H4a: There are no gender differences related to the behavioural intention to consume collaboratively.

H4b: Age is negatively related to the behavioural intention to consume collaboratively.

H4c: One's positive employment status (having a job) is negatively related to the behavioural intention to consume collaboratively.

H4d: The number of members in a household is positively related to the behavioural intention to consume collaboratively.

H4e: Income is positively related to the behavioural intention to consume collaboratively.

Materials and methods

Data and measurement

The data collection process involved conducting a web-based survey from January to March 2021. Prior to the main survey, a small pilot study was carried out to ensure that the questions were understood and comprehensible to the participants. This involved providing clear explanations of abstract concepts (e.g. including the key concepts of CC and sharing economy models) and carefully aligning the wording for both the Kyrgyz and Russian versions of the survey.

The questionnaire was made available in two languages: Kyrgyz and Russian. To ensure accuracy and consistency, the questions were initially translated from English and then cross-checked using

the back-translation method. Respondents were asked to indicate their level of agreement with the provided statements on a Likert scale that ranged from 1 (indicating strong disagreement) to 7 (indicating strong agreement).

The survey was distributed on multiple channels. First, we employed dissemination through various social platforms commonly used in Kyrgyzstan, such as Telegram, WhatsApp and Facebook. Thereby combining convenience sampling and the snowball technique, as described by Baltar and Brunet (2012). Second, the survey was specifically targeted at students, as one of key groups of CC users among generation Z (Tran et al., 2022), through the efforts of professors from two local universities: the Kyrgyz National University and the International University of Kyrgyzstan. Lastly, some car sharing companies operating in Kyrgyzstan were approached to assist in distributing the survey among their customers, complementing the sample with more experienced CC users.

In line with ethical guidelines, respondents were provided with information about the research and its purpose prior to participating. They were asked to read and acknowledge a consent form before agreeing to participate by clicking the "Yes, I agree to participate" button. This ensured that participants were well-informed and voluntarily consented to take part in the survey.

The final sample for our study consisted of 308 respondents, and descriptive statistics are presented in Table 1.

Table 1. Descriptive statistics

Variable	Descriptive statistics (%)
Gender	
Female	82.5
Male	17.5
Residence	
Urban	87
Rural	17
Education	
Complete higher education	59.7
Incomplete higher education	21.4
Incomplete secondary education	6.2
Academic Degree	4.2
Secondary education	2.6
College	2.3
Elementary education	1.6
Secondary vocational education	1.3
Without education	0.7
Household income	
More than 20,001 KGS	49.7
18,001–20,000 KGS	10.4
15,001–18,000 KGS	9.74
10,001–12,000 KGS	7.81
12,001–15,000 KGS	5.52
8,001–10,000 KGS	4.9
6,001–8,000 KGS	4.5
Up to 700 som KGS	1.9
1,201–1,500 KGS	1.62
1,501–2,000 KGS	1.3
2001–3000 KGS	1
701–900 KGS	0.6
3001–4000 KGS	0.6
901–1,200 KGS	0.32

Employment status	
Employed	57%
Unemployed	43%
Region	
Bishkek (capital city)	64
Osh	11
Issyk-Kul	10.7
Chui	6.5
Naryn	4.5
Jalal-Abad	1.6
Talas	1.3
Batken	0.3

Source: authors' computations

The gender distribution of 82.5% females and 17.5% males reveals indeed an unequal sample However, while not completely justified, this inequality is somewhat in line with the current gender ratio in Kyrgyzstan, roughly 94 males for every 100 females, mostly explained by external migration (Sustainable Development Goals and Gender in Kyrgyzstan, 2023). The average age of the participants was 29.45 years, ranging from a minimum age of 17 to a maximum of 70, with a median age of 25 and a standard deviation of 12.55. The majority of respondents (87.74%) were below the age of 40. In terms of residence, 87% of the respondents lived in urban environments, while 13% indicated that they resided in rural areas. A significant portion of the sample (87%) reported having an academic degree. On average, 5 people were living in each respondent's household, with a standard deviation of 1.75. The largest household in the sample had 10 members. Respondents reported having an average of 3 siblings, with a standard deviation of 2.34, and the maximum number of siblings reported by a respondent was 10. Approximately 57% of the participants were currently employed, while among the unemployed respondents, there were students, housewives, individuals on maternity leave, and those actively seeking employment. Half of the sample reported a monthly household income exceeding KGS 20,000 (equivalent to more than USD 239), while the other half included individuals with varying income levels, with 10.4% having a monthly household income up to KGS 20,000, 9.7% up to KGS 18,000, and 7.8% with income up to KGS 12,000. Regarding geographic distribution, the majority of respondents resided in the country's capital, Bishkek (64%). The remaining respondents were from other regions, including Osh (11%), Issyk-Kul (10.7%) and Chui (6.5%).

Method

We use a PLS-SEM analysis (Joreskog & Wold, 1982) to estimate the relationships between the intention to engage in collaborative consumption and the TPB predictors along with the control variables accounting for demographic characteristics. The PLS-SEM approach aims at assessing contemporary relationships among variables, by maximising the variance of the outcome variable as explained by its predictors. Unlike covariance-based SEM, PLS-SEM is an exploratory method that provides a solid basis and guidance for developing practical interventions (Hair et al., 2011). Aside from the capability of the method to come up with reliable estimated coefficients based on small sample sizes and in the absence of any distributional assumptions on the data (Hair et al., 2019), the WarpPLS software used to carry out the analysis in this paper provides a unique feature among all the PLS-SEM statistical packages. Based on a nonparametric estimation, the software suggests the best functional fit for each of the relationships involved in the conceptual model, and thus identifies potential non-linear patterns worthy of consideration in informing policy-making (Kock, 2011; 2014; 2015).

Section 4 reports the results of the PLS estimation in two parts: a measurement model, also known as the outer model, to assess the relationships between the measured variables and their corresponding latent constructs, and an inner (or structural) model that estimates the relationships among the latent variables. In conducting the analysis, we relied on the WarpPLS 7.0 software.

Results

The measurement (outer) model

Table 2 includes information about the reliability of the measurement. The composite reliability for each construct is higher than the recommended threshold of 0.70 (Nunnally & Bernstein, 2010) – ranging between a minimum value of 0.881 for PBC and a maximum of 0.944 for ATT. In a similar vein, Cronbach's alpha values are above 0.70, ranging from a minimum of 0.792 for PBC and a maximum of 0.928 for ATT, being indicative of good internal consistency (Cortina, 1993). Last but not least, the last column of Table 3 shows that the average variance extracted (AVE) values range between a minimum of 0.702 for SN and a maximum of 0.839 for INT. All the values are higher than the recommended threshold of 0.50 (Fornell & Larcker, 1981). We conclude that measurement reliability is confirmed.

Table 2. The reliability of measurement indicators

Latent construct	Composite reliability (> 0.7)	Cronbach's Alpha (> 0.7)	AVE (> 0.5)
Intention (INT)	0.940	0.904	0.839
Attitudes (ATT)	0.944	0.928	0.737
Subjective Norms (SN)	0.904	0.859	0.702
Perceived Behavioural Control (PBC)	0.881	0.792	0.714

Source: authors' computations

The values of the combined loadings and cross-loadings presented in Table 4 show that convergent validity holds. The loadings of each manifest variable in its corresponding latent construct range from a lower value of 0.811 to an upper value of 0.938. All values are above the required theoretical threshold of 0.7 with one exception: the loading of the third item of the PBC is 0.693, slightly below the threshold. Considering that 0.7 is only a recommendation, and not a requirement, we kept the item as part of the latent construct. Table 3 also shows that all off-diagonal values are lower than the diagonal value for each block of measurement items. All these arguments confirm that the convergent validity holds.

Table 3. Combined loadings and cross-loadings for each latent construct

	INT	ATT	SN	PBC
INT1	**0.938**	-0.117	0.118	-0.045
INT2	**0.930**	0.033	0.082	-0.192
INT3	**0.880**	0.090	-0.213	0.251
ATT1	0.080	**0.828**	0.099	-0.413
ATT2	0.009	**0.889**	0.023	-0.129
ATT3	-0.030	**0.811**	-0.288	0.285
ATT4	-0.104	**0.848**	0.117	0.174
ATT5	0.084	**0.900**	-0.090	0.100
ATT6	-0.044	**0.871**	0.130	-0.014
SN1	0.207	0.048	**0.824**	-0.095
SN2	-0.073	0.302	**0.860**	-0.043
SN3	-0.045	-0.209	**0.846**	0.025
SN4	-0.084	-0.149	**0.821**	0.114
PBC1	-0.068	0.074	0.014	**0.913**

PBC2	0.043	0.305	0.062	**0.909**
PBC3	0.033	-0.497	-0.100	**0.693**

Source: authors' computations

In favour of the discriminant validity, we show in Table 4 that all block diagonal values corresponding to each latent construct, are higher in all cases than the corresponding off-diagonal values, and that none of the off-diagonal correlations are higher than the recommended value of 0.8 (Kennedy, 2008).

Table 4. Correlations among l.vs. with sq. rts. of AVEs

	INT	ATT	SN	PBC
INT	0.916	0.775	0.675	0.705
ATT	0.775	0.858	0.754	0.773
SN	0.675	0.754	0.838	0.736
PBC	0.705	0.773	0.736	0.845

Source: authors' computations

The inner model

Table 5 presents the estimated coefficients of the research mode along with their corresponding effect sizes. The amount of variance explained (R^2) for the behavioural intention to engage in collaborative consumption is 64.4% (adjusted R^2 of 63.4%). All VIF values are 3.044 or less, and the average block VIF is 1.771, lower than the minimum recommended threshold of 3.3. The Tenehaus goodness of fit index is 0.756, ranked as a large value.

Table 5. The estimated coefficients of the inner model and the corresponding effect sizes

| Model	Intention to engage in collaborative consumption	Effect size
Attitudes	0.512*** (p < 0.001)	**0.397**
Subjective norms	0.125* (p = 0.013)	**0.085**
Perceived behavioural control	0.211*** (p < 0.001)	**0.150**
Gender	0.041 (p = 0.233)	0.006
Age	0.027 (p = 0.314)	0.003
Job	-0.017 (p = 0.386)	0.001
Household	0.002 (p = 0.484)	0.000
Income	-0.047 (p = 0.202)	0.008
R2/Adjusted R2	64.4% / 63.4%	
Tenehaus GoF	0.756 (large)	

Source: authors' computations

The TPB Dimensions

Attitudes towards collaborative consumption are positively related to the intention to adopt the behaviour (β = *0.512, p* < 0.001). Subjective norms are also positively related with the intention to adopt collaborative consumption (β = *0.125, p* = 0.013), and the same applies to perceived behavioural control (β = *0.211, p* < 0.001). In terms of effect sizes, attitudes rank first (0.397), followed by perceived behavioural control (0.150) and then subjective norms (0.085). These values are all higher than the theoretical threshold of 0.02, indicative of predictors suitable for practical interventions (Cohen, 2013).
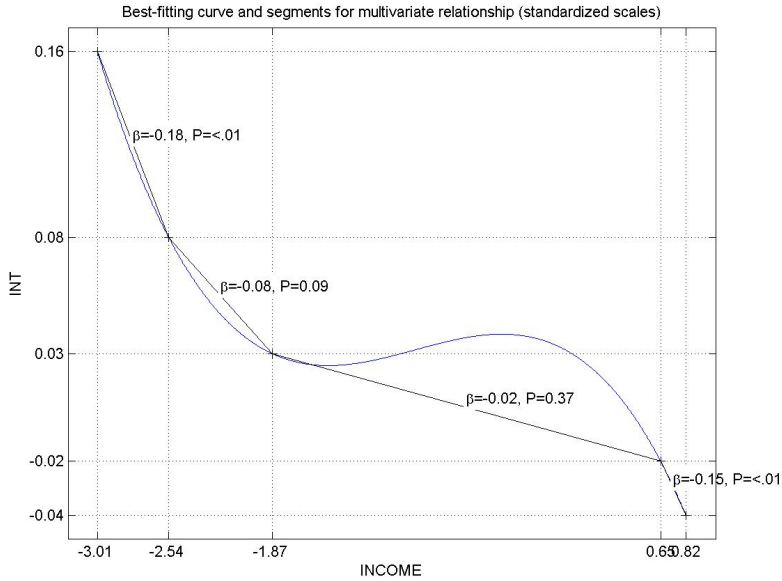
The Control Variables

None of the control variables is statistically significant, as Table 5 presents. This may result from the irrelevance of the predictors, or from the fact that their relationship with the outcome variable is non-linear. In support of the second scenario, three relationships deserve more in-depth attention. Figure 2 shows that the relationship between age and the intention to engage in collaborative consumption follows an interesting nonlinear pattern, with younger respondents displaying no significant relationship among the two variables (β = *0.03, p* = 0.300 and β = 0.02, *p* = 0.37 for standardised age scores between -0.99 and 2.43) and a clear negative relationship for standardised age scores higher than 2.43 (β = -0.13 and β = -0.23, *p* < 0.01).
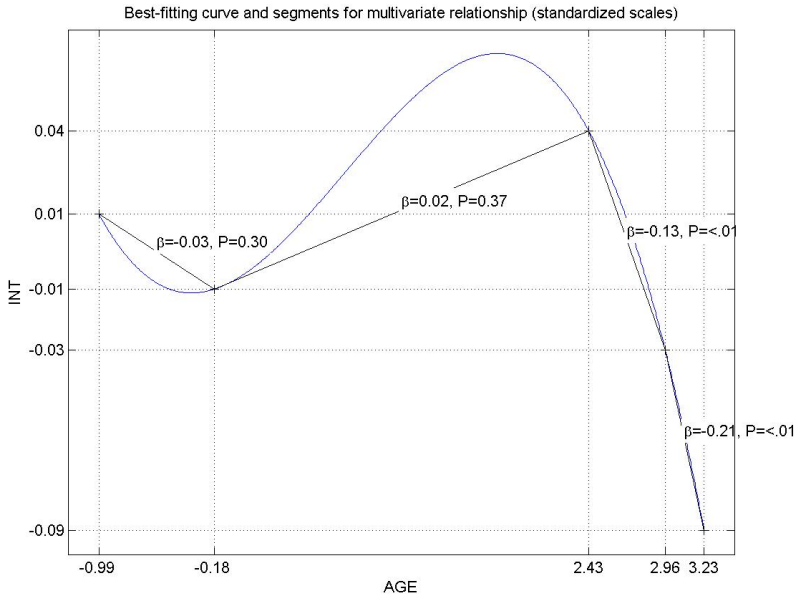
Figure 1. The age – intention nonlinear relationship

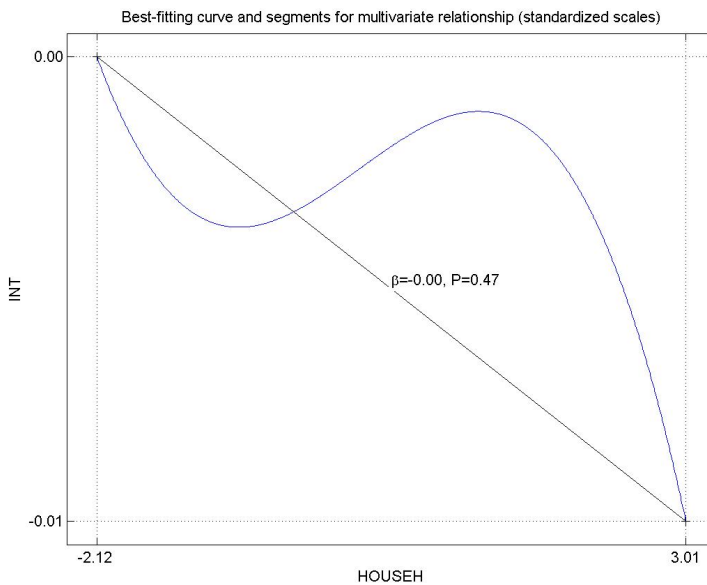*Source:* authors' computations

Figure 2 shows the nonlinear relationship identified between income and intention. The only segments displaying a statistically significant and negative relationship in this case correspond to the respondents with the lowest (standardized scores lower than -2.54, β = *-0.18, p* < 0.01) and highest income (standardized scores higher than 0.65, β = *0.15, p* < 0.01). For the rest of the sample, the relationship between income and intention to engage in collaborative consumption is not significant (β = *-0.08, p* = 0.09 and β = *-0.02, p* = 0.37 respectively).

Best-fitting curve and segments for multivariate relationship (standardized scales)

β=-0.18, P=<.01

β=-0.08, P=0.09

β=-0.02, P=0.37

β=-0.15, P=<.01

Figure 2. The income – intention nonlinear relationship

Source: authors' computations

The last nonlinear relationship involves the number of household members, as Figure 3 presents. Once again, the non-parametric estimation of this relationship identifies a lack of statistical significance ($\beta = -0.00$, $p = 0.47$). Although the overall trend, especially for high values of the standardised scores, seems to be negative, the range of the values for intention as displayed on the vertical axis in Figure 2 is too small (from -0.01 to 0.00) to confirm the existence of significant variability in data and consequently a significant slope. More on these relationships will be discussed in the following section.

Best-fitting curve and segments for multivariate relationship (standardized scales)

β=-0.00, P=0.47

Figure 3. The number-of-household-members – intention nonlinear relationship

Source: authors' computations

Discussion

This study applied the Theory of Planned Behaviour (TPB) to investigate how attitude, subjective norms and perceived behavioural control influence the intention of Kyrgyz participants to engage in collaborative consumption activities.

Both collaborative consumption and the broader sharing economy remain subjects of ongoing debate, with discussions revolving around their potential contribution to sustainable development, impact on the labour market, and their influence on specific industries (e.g. hospitality, commerce etc.). While there has been a growing number of case studies focusing on sharing practices in populous developing countries across Asia, the primary geographical areas of interest are limited to South Asia and China. In contrast, there has been limited attention given to the former Soviet republics in Central Asia. Unlike studies that primarily examine Central Asian economies from the conventional perspective of oil and natural gas resources or their geopolitical positioning between Russia and China, our research adopts a bottom-up approach to consumer behaviour. This facilitates valuable and relatively rare insights into people's perceptions of collaborative consumption practices in this unique cultural context. Demonstrating the applicability of the TPB framework to collaborative consumption in a novel cultural environment is a noteworthy theoretical contribution because it further substantiates the transversality of the concepts involved (attitudes, subjective norms, and perceived behavioural control). In so doing, our documented case of TPB establishes a solid foundation for further comparative research and extensions of the theory into different contexts. The study's results revealed positive correlations between all three TPB variables and the intention to adopt collaborative consumption, offering a hierarchy for practical interventions based on effect sizes in relation to attitudes, perceived behavioural control and subjective norms.

The confirmation of the statutory role of attitude aligns with existing literature, providing further validation for this variable within CC research. The novelty in our findings emerges particularly from the examination of perceived behavioural control within this previously uncharted national sample. This discovery underscores the significance of enhancing the perception of behavioural control through potential technological improvements (e.g., better apps, enhanced technological accessibility) and providing relevant training to develop competencies (e.g. a similar result was obtained for the intention to use mobile learning by Kyrgyz students (Afacan Adanır & Muhametjanova, 2021). These avenues can play a pivotal role in the development and promotion of CC practices in Kyrgyzstan.

The situation in regard to the control variables appears to be quite different, as we were unable to identify a distinct participant profile based on gender, age, employment status, number of household members, or income. This observation could be attributed, in part, to the relatively low level of awareness surrounding CC practices in Kyrgyzstan and the potential overlap with already embedded informal approaches that are deeply rooted in the culture. In other words, there may not be significant differences in socio-demographic aspects among those who are aware of and open to collaborative consumption practices. Conversely, a study considering resistance to CC practices (e.g. motivated for instance through potential negative emotions evoked by the market system (Sanghera et al., 2006)) may reveal more differences between socio-demographic groups.

Nevertheless, we did uncover three intriguing non-linear relationships: age – intention, income – intention, and the number-of-household-members – intention. The existence of specific segments within age and income that exhibit noteworthy correlations suggests the need for more focused attention on groups that demonstrate the potential to develop clearer preferences. For instance, younger individuals, those with middle-class incomes, and the size of families stand out as groups where no discernible patterns were identified, indicating that these segments do not express any negative intentions towards CC. This opens opportunities for more targeted efforts to understand and engage these groups in CC practices. In the meantime, household size is deemed statistically irrelevant for an interesting reason: the variations in the intention to engage in collaborative consumption among different household groups is so small that it can be considered

constant. This implies that household size is not a significant source of genuine variation in the intention to adopt collaborative consumption, so practical interventions should not prioritise this characteristic of the recipients.

Table 6 summarises our findings in terms of accepted and rejected research hypotheses.

Table 6. Summary of hypothesis testing

	Hypothesis	Accepted/ Rejected
H1	Attitudes are positively related to the behavioural intention to consume collaboratively.	Accepted
H2	Subjective norms are positively related to the behavioural intention to consume collaboratively.	Accepted
H3	Perceived behavioural control is positively related to the behavioural intention to consume collaboratively.	Accepted
H4a	There are no gender differences related to the behavioural intention to consume collaboratively.	Rejected
H4b	Age is negatively related to the behavioural intention to consume collaboratively.	Rejected
H4c	One's positive employment status (having a job) is negatively related to the behavioural intention to consume collaboratively.	Rejected
H4d	The number of members in a household is positively related to the behavioural intention to consume collaboratively.	Rejected
H4e	Income is positively related to the behavioural intention to consume collaboratively.	Rejected

Next to theory advancement, the findings of this study hold managerial significance and can guide practitioners in leveraging the attributes of TPB to promote CC adoption. First, there is an opportunity to increase the favourable assessment of CC practices. To this end, service providers can shape positive attitudes towards CC by creating compelling narratives and conveying information about the functional benefits of such services. Emphasising advantages such as better prices, faster access, and greater variety of offerings can be particularly effective. In addition, highlighting technological solutions that support CC, such as user-friendly apps and seamless platforms, can enhance perceived value and ease of use (Buczynski, 2013). For instance, ride-hailing platforms can employ bundling strategies based on price and service level to attract and retain customers (Xu et al., 2022).

Second, the findings support the need to enhance PBC in CC users. Improving PBC is closely tied to enhancing digital competencies among users. Service providers can play a role in facilitating this by offering educational resources and support to users, fostering digital literacy, and promoting active participation in digital transformations (Sun, 2020). Alongside these learning processes, optimising the presentation of information and adopting communication strategies with a friendly and user-centric tone can enhance user confidence in engaging with CC platforms. For example, accommodation service platforms can embed features for easy communication between hosts and guests, making prompt responses and transparent information disclosure systems possible (Fan et al., 2022; S. Zhang et al., 2023).

Third, leveraging subjective norms is a relevant avenue. Indeed, encouraging pioneers and early adopters to promote CC can be an effective business strategy. Local evidence suggests that having trendsetters and influencers endorse a new type of consumption can significantly impact adoption rates. For instance, the emerging coffee culture in Bishkek, the capital of Kyrgyzstan, witnessed notable growth due to the influence of pioneers in the coffee industry (Simkin & Schmidt, 2019).

Service providers can collaborate with such influencers to promote CC practices and create a sense of community around shared consumption experiences. Incorporating these strategies can help service providers and businesses in Kyrgyzstan and similar contexts foster a more favourable environment for collaborative consumption and tap into the growing interest in sharing economy practices.

Moving to the policy level, fostering positive attitudes towards CC can also create opportunities for entrepreneurial initiatives across various domains within the sharing economy. These initiatives can encompass established topics in the sharing economy as well as novel or underexplored areas. The meal-sharing economy in India (Kahraman et al., 2023) (e.g., platforms that facilitate home-cooked meal sharing or food delivery services), CC services for finding workers in Indonesia (e.g., mobile commerce start-ups for the construction industry (Tardan et al., 2018) or digital disruption in the economy (Skog et al., 2018) are just a few examples that could be adapted and replicated in Kyrgyzstan. In support of these entrepreneurial endeavours, government intervention can play a crucial role. Governments can offer regulatory legitimacy to sharing and collaborative practices by creating a conducive legal framework that fosters innovation and protects the rights of participants. In addition, working collaboratively with key stakeholders and opinion leaders can help achieve cognitive and social legitimacy for CC and the broader sharing economy (Chen et al., 2022). This can involve public awareness campaigns, partnerships with local communities, and engagement with industry associations to promote the benefits of CC. Overall, Kyrgyzstan has the potential to become a fertile ground for entrepreneurial initiatives in the sharing economy, and efforts to foster positive attitudes and gain government support can contribute to the growth and success of these initiatives.

Finally, a closer examination of attitudes and subjective norms can play a pivotal role in facilitating the complex transition from conducting a significant portion of economic activities within the informal economy to establishing formally registered businesses and practices. This transition is particularly relevant in sectors such as tourism and hospitality (Alrawadieh & Alrawadieh, 2018) and can constitute a strategic objective in a country that has a documented tendency to "remain in the shadows" (Polese, 2023) (both citizens and enterprises). The potential of CC covers social and cultural factors surrounding informality: as individuals and businesses become more comfortable with the idea of sharing resources and engaging in CC practices, they may be more willing to formalise their operations. Furthermore, it is noteworthy to mention that while the debates around CC are far from resolved, there is supporting evidence that the peer-to-peer platforms promoting collaborative services are "in line with the common good and implicitly contribute to the service of society" (Chivite Cebolla et al., 2021). By fostering a favourable cultural and social environment for CC, Kyrgyzstan could potentially accelerate its transition towards formalisation and reap the economic and social benefits associated with shared economy practices.

Conclusions

This paper represents one of the first empirical studies to delve into people's perceptions of collaborative consumption (CC) in Kyrgyzstan, utilising the Theory of Planned Behaviour (TPB) as the analytical lens. The study breaks new ground by shedding light on the understanding of these emerging consumption practices within Kyrgyz society. The findings highlight the effectiveness of the TPB framework in comprehending these novel consumption behaviours and offer valuable recommendations for businesses and policymakers looking to harness the development potential of these innovative collaboration models.

There are some limitations that provide avenues for further research. While we have tackled a novel sample from Kyrgyzstan, we still need to increase the generalisability of our findings. This can be done on two levels: (i) by conducting further work in the Central Asia region, and (ii) by considering other smaller towns in Kyrgyzstan (capital cities in general tend to integrate to a much larger extent some of the global trends, at least in comparison to smaller towns). Considering the paucity of local research on the topic, we consider that examining it through a traditional

theoretical framework would constitute a first clean step as part of a wider research. Extending TPB with various values and beliefs (e.g. constructs associated with individualism and collectivism; egoistic, altruistic, and biospheric values) could be highly beneficial for strengthening the existing body of literature. Another aim is to achieve more balanced samples in terms of gender, keeping in mind that there is no gender parity due to migration, and that our sample is composed of students (with the important caveat that women make up of the majority in higher education).

Similarly, investigating CC adoption over time through longitudinal studies could offer insights into the evolving nature of collaborative consumption in Kyrgyzstan (especially after crisis moments like the Covid-19 pandemic). By addressing these limitations and pursuing further research in these directions, scholars can continue to enrich the literature on collaborative consumption in Kyrgyzstan and similar regions, ultimately contributing to a more comprehensive and nuanced understanding of this evolving phenomenon.

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