A Study of the Motivation of Collaborative Consumption and the Moderating Effect of Perceived Social Distance

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ABSTRACT

The purpose of the present study was to examine the relationships between motivation factors and collaborative consumption engagement and explore the moderating effect of perceived social distance on that relationship. For this, the present study collected data from 228 college students in South Korea through a survey method. In the results, first, the more enjoyment or reputation participants perceive in collaborative consumption platforms, the more they are engaged in collaborative consumption. Second, a positive relationship between perceived enjoyment and collaborative consumption engagement is stronger for participants in collaborative consumption platforms high rather than low in perceived social distance. However, the perceived social distance was found to have no significance in the relationship between perceived reputation and collaborative consumption engagement.

KEYWORDS
Collaborative Consumption, Engagement, Enjoyment, Reputation, Social Distance, Social Exclusion

1. INTRODUCTION

Consumer attitudes have changed in recent years and concerns about ecological, social and developmental impacts have increased (Choi, 2021; Kim et al., 2018; Albakjaji et al., 2020; Albinsson & Perera, 2012). Indeed, public awareness of the environmental and ethical implications of mass consumption contributed to the emergence of sustainable consumption concepts around the new millennium’s beginning (OCSC, 2000). The Oxford Sustainable Consumption Committee (OCSC) defines this concept as consumption that does not result in an environmental or functional loss in the natural world but supports current and future generations to meet material and other needs. In pursuit of these ideals, various stakeholders (e.g., businesses, government agencies, and consumer advocates) have begun to develop initiatives to produce consumer goods that reduce environmental impacts and subsequently provide positive social impacts (Galli, 2019; Cho, Gupta & Kim, 2015). Among the evolving examples of initiatives to promote sustainable consumption, collaborative consumption (CC) has emerged as a promising initiative to reduce consumer waste among various products (Barhoun et al., 2019; Sadgui, & Bencharkara, 2018). Collaborative consumption represents various business
models that fundamentally deviate from traditional ownership concepts, including leasing, leasing, exchanging, and exchanging products and services (Johnson, Mun & Chae, 2016).

One of the consequences of the recent hyperconnectivity and a high level of efficiency and reliability is that people are willing to engage in all kinds of social and economic exchanges with members of the extended digital network. Technology, and the applications that come with it, has changed the nature of activities ranging from dating (Tinder) to traveling (Airbnb). Our connectivity is changing the way humans interact. In particular, more people are open to sharing. Whether it’s pictures, identities, or breaking news, people provide more to the network than ever before.

Despite the increasing practical importance, there is a lack of quantitative research into motivational factors that affect participants’ attitudes and intentions toward CC. This article explores the motives of those who want to participate in CC. For this purpose, the article is structured as follows. First, the following sections present the theoretical framework and background for hypotheses. This study adopts the lens of intrinsic and extrinsic motivations in attitude formation and uses intentions related to CC (Lindenberg, 2001). This study will mainly propose a model that integrates intrinsic and extrinsic factors rather than identifying fragmentary factors. Although intrinsic and extrinsic motivations may not coexist or even show conflicts, this study will hypothesize that intrinsic and extrinsic motivators can coexist in the CC process. This study will show that people who participate in CC share the philosophy related to CC, unlike commerce’s general motives. And, theories about the development of self-identity and the relationship between self and consumption suggest that the sharing of objects will be associated with a perceived social distance (Belk, 1988). P2P exchange is expected to produce a lower context in anonymity and higher involvement, the implied social aspect of Bardhi and Eckhardt’s dimensions. Belk’s (1988) work on the extended-self established the idea that people expand their concept of who they are to include their possessions and objects they consume. This study will apply ideas on the extended self to P2P collaborative consumption and hypothesize that by sharing a personal object of consumption, perceived social distances will be closer, vis-à-vis B2C exchange. And, the subsequent section then outlines data and methods, followed by the results. The article concludes with a discussion on implications and avenues for future research.

2. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

The collaborative economy is defined as a network of distributed groups that use products, technologies, and more through Internet technology. In other words, items and technologies are shared among groups, not owned by individuals alone. For example, in the United States, Canada, and Western Europe, an average car is used only 8% of its life (Sacks, 2011). Besides, in the United States, an average woman does not wear 60 percent of her wardrobe, and the retail value of the clothes in the closet accounts for about $220 billion (TredUP, 2017). Therefore, sharing such products can be beneficial to consumers in both financial and practical terms and can positively impact society and the environment (Belk, 2014).

Groups of similar consumption practices, described as ‘sharing’ (Belk, 2010), ‘collaborative consumption’ (Botsman & Rogers, 2011), ‘access-based consumption’ (Bardhi & Eckhardt, 2012), and ‘commercial sharing systems’ (Lamberton & Rose, 2012) have gained attention in the recent years (Belk, 2014). Collaborative consumption (CC) is a business model for sharing a particular product that provides a way to delay or prevent waste by exchanging used goods that are not used or desired among individual groups. Moreover, CC is an alternative ecological consumption method (Botsman & Rogers, 2011). Botsman and Rogers (2010) described CC as “a socio-economic basis that will change the way a company thinks about its value proposition and the way people meet their needs.” The authors also discussed that CC could be as important as the Industrial Revolution in terms of transferring ownership of ideas (Botsman & Rogers, 2011).

Felson and Spaeth first introduced the term collaborative consumption in terms of consumer behavior in 1978. The following definitions have presented various purposes of CC over the years.
CC is regarded as an event in which one or more persons consume economic goods or services in joint activities with one or more others (Felson & Spaeth, 1978). Botsman and Rogers (2011) suggest that CC stands for traditional sharing, exchange, lending, trading, leasing, futures, and exchanges that have been redefined through technology and peer communities. Ertz, Durif, and Arcand (2016) argue that CC is a set of resource rotation systems that enable consumers to acquire, temporarily, or permanently deliver valuable resources or services through direct interaction with other consumers or through intermediaries.

Bicycle sharing is the fastest growing CC service in the world (Botsman & Rogers, 2011). An example of this service is LimeBike. LimeBike, an American bike-sharing service launched in 2017, revolutionized urban traffic in major U.S. cities cheaply and conveniently, eliminating carbon footprints. Forbes reported that LimeBike is valued at $225 million and has about 300,000 users (Carson, 2017). Mohlmann (2015) explained that more and more people have been using car-sharing services such as Car2go and Zayefka in recent years. Zipcar promotes car sharing as a ‘green brand’ by encouraging its members with sustainable driving practices and allowing them to receive tax breaks in certain U.S. states (Bradhi & Eckhardt, 2012). In 2017 alone, Car2go reported operations in 26 international regions and predicted a five-fold increase in global users to about 36.7 million by 2025. (Sunders, 2017). Therefore, CC is no longer a niche trend. In particular, CC services such as bike and car-sharing show CC’s phenomenal growth in recent years.

Self-determination theory (Deci & Ryan, 1985) assumes that motivation is inherently or essentially distinguishable. The former comes from the intrinsic value associated with a given activity, while the external motive is related to external pressure, such as monetary gain. A fundamental dimension of intrinsic motivation is the autistic nature of the activity or the pleasure derived from the activity itself (Lindenberg, 2001). In terms of intrinsic motivation, software developers contribute to open-source projects with a sense of enjoyment and competence (Nov, 2007). Enjoyment has also been considered an important factor in other sharing-related activities, such as the use of information systems (Van der Haijden, 2004), and Internet information sharing (Nov et al., 2010).

Nevertheless, the collaboration’s initial motivation does not explain or predict continued participation (Fang & Neufeld, 2009). In the study of the ongoing use of social networking services, enjoyment is a major factor, followed by peers’ number and usefulness (Lin & Lu, 2011). Social networking services and similar service designs used elsewhere can be seen to promote relatedness (Hamari & Koivisto, 2015), which is a major determinant for intrinsically motivated use, such as enjoyment. This study hypothesizes that enjoyment is a major predictor for attitude formation and behavioral intentions towards CC.

**H1:** Perceived enjoyment of CC positively influences engagement in CC.

Reputation is an important external motivator in determining participation in communities and other online collaboration activities such as information sharing (Wasko & Faraj, 2005) and open source projects (Nov et al., 2010). In particular, gaining fame among people of the same mind has been shown to motivate sharing in the online community and open source projects (Parameswaran & Whinston, 2007). Anthony, Smith, and Williamson (2009) reported that fame and dedication to the community are important drivers for Wikipedia and its editors. When Wasko and Faraj (2005) explored why individuals share knowledge in the electronic network of practice, they established that contributions are often emphasized by the perception that contributions improve an individual’s reputation. Donath (1999) also supported the conclusion that reputation can be an incentive for active participation. Yang and Lai (2010) found that individuals were more likely to achieve self-centered performance than enjoyment in the process of sharing knowledge. Hars and Ou (2001) also found that it was the strongest indicator of the possibility of working together online. Similarly, a person who actively participates in CC can expect an intangible reward in the form of higher status within
the CC community. Therefore, this study hypothesizes that reputation is a major predictor for attitude formation and behavioral intentions towards CC.

**H2:** Perceived reputation positively influences engagement in CC.

It has been proposed that a need to belong, that is, a need to form and maintain at least a minimum quantity of interpersonal relationships, is innately prepared among human beings (Baumeister & Learly, 1995). This kind of characteristic can vary among individuals, and much work has been done to develop an excellent way to measure interpersonal differences (Lakin, Chartrand, & Arkin, 2008). Such interpersonal differences regarding the need to develop human connections may be trait-based, as with the interdependent self-view above, or it may result from one’s immediate environment. One environmentally-based construct that deals with a person’s sensitivity to social connections is social exclusion (Lakin et al. 2008). Social exclusion is not so much an individual trait as it is a situational response from some form of rejection or prohibition to joining a social group of some kind (Lakin et al. 2008). When people experience social exclusion, they may seek to reduce social distances through mimicry (Lakin et al. 2008) and behavioral synchrony (Miles, Lumsden, Richardson, & Macrae, 2011). Research has shown that exclusion increases people’s desire to enter into new social interactions and that people who are socially excluded are more interested in working and playing with others (Maner, DeWall, Baumeister, & Schaller 2007). Social exclusion also increases the excluded tendency to positively and optimistically see new social connections (Mead, Baumeister, Stillman, Rawn, & Vohs, 2011). Individuals also show higher mimicry levels after experiencing social rejection (Mead, Baumeister, Stillman, Rawn, & Vohs, 2011).

Therefore, people have an increased desire for social closeness after experiencing some social exclusion (Lakin, Chartrand, & Arkin 2008). These people can show enhanced participants’ behavior during the collaborative consumption process. First, enjoyment has been considered an important factor in sharing-related activities (Van der Haijden, 2004; Nov et al., 2010). In the study of the ongoing use of social networking services, enjoyment is a major factor, followed by peers’ number and usefulness (Lin & Lu, 2011). Social networking services and similar service design used elsewhere can be seen to promote relatedness (Hamari & Koivisto, 2015), which is a major determinant for intrinsically motivated use such as enjoyment. Thus, enjoyment, defined as an intrinsic motivator in the collaborative consumption process, may not be achieved by the participant alone, so it is necessary to have sharing-related activities with those who participate in the collaborative consumption platform. Therefore, the more social exclusion people experience, the more social closeness they will feel from the enjoyment based on sharing-related activities in the CC process than any others, which will make them more engaged in CC.

Second, gaining fame among people of the same mind has been shown to motivate sharing in the online community and open source projects (Parameswaran & Whinston, 2007). Fame is an important driver for Wikipedia and its editors (Anthony et al., 2009). The contributions of sharing knowledge in the electronic network of practice are often emphasized by the perception that contributions improve an individual’s reputation (Wasko & Faraj, 2005). Reputation can be an incentive for active participation and the strongest indicator of the possibility of working together online (Donath, 1999; Hars & Ou, 2001). Therefore, the more social exclusion people experience, the more social closeness they will perceive from the reputation by working together in the CC process than any others, which will make them more engaged in CC. Therefore, this study hypothesizes that social exclusion is a major moderator for the relationship between two predictors and CC engagement.

**H3:** Social exclusion positively influences the relationship between enjoyment and engagement in CC.
**H4:** Social exclusion positively influences the relationship between reputation and engagement in CC.
3. METHODOLOGY

3.1 Sample
This study sample consists of 228 college students with previous experience engaging in online CC platforms (i.e., those who bought, sold, or rented a product using an online CC service). The sample consists of undergraduate and graduate students in business, social science, and engineering programs in Korea. The criteria for participation in the study include past engagement in CC and a minimum age of 18 years. Though the sample is considered one of convenience, college students represent a significant subset of a major participant’s segment that focuses on global marketers (Dobbs et al., 2016).

3.2 Data Collection and Instrumentation
The study’s objective was to identify the factors of psychological behaviors related to CC engagement based on empirical analysis. These factors can be identified by measuring the participants’ perceptions of CC platforms. The survey research method is very useful in collecting data from many individuals in a relatively short period and at a lower cost. Hence, for the current study, the questionnaire survey was used for data collection. All participants received a paper-and-pencil questionnaire with an accompanying letter that explained the purpose of the survey, emphasized voluntary participation, and guaranteed confidentiality. Participants were asked to fill out the questionnaire and put it back into an envelope collected by the researcher.

The questionnaire employed psychometric measurement (Nunnally, 1978). This study measured each construct with four or five items that were all on a 5-point Likert scale. Perceived enjoyment was measured using five items from the scale developed by van der Heijden (2004). For example, “I think collaborative consumption is enjoyable.” Perceived reputation was measured using four items from the scale developed by Wasko & Faraj (2005). For example, “Contributing to my collaborative consumption community improves my image within the community.” Social exclusion was measured using three items from the scale developed by Mead et al. (2011). For example, “I felt excluded.” CC engagement employs four items (Hamari et al., 2016). For example, “All things considered, I expect to continue CC in the future.”

4. ANALYSIS RESULT

4.1 Verification of Reliability and Validity
The validity of variables was verified through the principal components method and factor analysis with the varimax method. The criteria for determining the number of factors is defined as a 1.0 eigenvalue. I applied factors for analysis only if the factor loading was greater than 0.5 (factor loading represents the correlation scale between a factor and other variables). The reliability of variables was judged by internal consistency as assessed by Cronbach’s alpha. I used surveys and regarded each as one measure only if their Cronbach’s alpha values were 0.7 or higher.

4.2 Common Method Bias
As with all self-reported data, there is the potential for the occurrence of common method variance (CMV) (MacKenzie & Podsakoff, 2012; Podsakoff et al., 2003). To alleviate and assess the magnitude of common method bias, I adopted several procedural and statistical remedies that Podsakoff et al. (2003) suggest. First, during the survey, respondents were guaranteed anonymity and confidentiality to reduce the evaluation apprehension. Further, we paid careful attention to the items’ wording and carefully developed our questionnaire to reduce the item ambiguity. These procedures would make them less likely to edit their responses to be more socially desirable, acquiescent, and consistent with how they think the researcher wants them to respond when answering the questionnaire (Podsakoff et
al., 2003; Tourangeau, Rips, & Rasinski, 2000). Second, I conducted a Harman’s one-factor test on all of the items. A principal components factor analysis revealed that the first factor only explained 34.9 percent of the variance. Thus, no single factor emerged, nor did one-factor account for most of the variance.

Furthermore, the measurement model was reassessed with the addition of a latent common method variance factor (Podsakoff et al., 2003). All indicator variables in the measurement model were loaded on this factor. The common variance factor’s addition did not improve the fit over the measurement model without that factor with all indicators still remaining significant. These results do suggest that common method variance is not of great concern in this study.

### 4.3 Relationship Between Variables

Table 1 summarizes the Pearson correlation test results between variables and reports the degree of multi-collinearity between independent variables. The minimum tolerance of 0.829 and the maximum variance inflation factor of 1.206 show that the data analysis’s statistical significance was not compromised by multi-collinearity.

### 4.4 Hypothesis Testing

This study used hierarchical multiple regression analyses with three-steps to test the hypotheses. In the first step, demographic variables were controlled. Motivation factors were entered in the second step. In the final step, the multiplicative interaction terms between motivation factors and interdependent self-view were entered to test the current hypothesis about the moderating effect directly. Table 2 shows the results. First, only sex among the control variables has a positive relationship with CC engagement. This means that women are more likely to be engaged in CC than men. Second, to analyze the relationship between motivation factors and CC engagement, model 2 in Table 2 shows that all motivation factors have statistical significance with CC engagement. Perceived enjoyment is positively related with CC engagement ($\beta = .091, p < .01$) and perceived reputation has positive relationships with CC engagement ($\beta = .044, p < .01$). Therefore, hypotheses 1 and 2 are supported.

Lastly, model 3, consisting of moderators, shows the interactions between motivation factors and social exclusion on CC engagement. Social exclusion positively affected the relationship between perceived enjoyment and CC engagement ($\beta = .090, p < .01$). Social exclusion was found to have no significance in the relationship between perceived reputation and CC engagement. Based on these results, when participants in CC platforms have a higher social exclusion in CC platforms, perceived enjoyment has a more substantial impact on their CC engagement, which is expected in H3 (see Figure 1).

### 5. DISCUSSION

The purpose of the present study was to examine the relationships between motivation factors and CC engagement and explore the moderating effect of perceived social distance on that relationship. The

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*p < .05, **p < .01
results show that the more enjoyment or reputation participants perceive in CC platforms, the more they are engaged in CC. And in the results, a positive relationship between perceived enjoyment and CC engagement is stronger for participants in CC platforms high rather than low in social exclusion. However, social exclusion was found to have no significance in the relationship between perceived reputation and CC engagement. This study suggests that people with a high social exclusion level can have an increased desire for social closeness in those participating in the collaborative consumption platform. Based on this suggestion, this study anticipates that these people can show enhanced

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*p < .05, **p < .01
participants' behavior during the collaborative consumption process. Because enjoyment, defined as an intrinsic motivator in the collaborative consumption process, may not be achieved by the participant alone, it is necessary to have sharing-related activities with those who participate in the collaborative consumption platform. Therefore, the results show that the more social exclusion people experience, the more social closeness they feel from the enjoyment based on sharing-related activities in the CC process than any others, making them more engaged in CC. This study anticipated that reputation could be an incentive for active participation and the strongest indicator of working together online. The more people with a high social exclusion, the more social closeness they perceive from the reputation by working together in the CC process than any others, making them more engaged in CC. However, the results that reputation that participants expect in CC platforms do not depend on social closeness from working together. Unlike perceived enjoyment, which is an intrinsic motivation factor, perceived reputation, which is an external motivation factor, is not realized through social closeness from working together among the people participating in the CC platform but is pursued by the individual behaviors of the participants.

6. CONCLUSION

6.1 Research Contributions and Practical Implications

For research contribution, this study is the first to examine the integral model of motivation factors of engagement in the CC platform. Despite growing practical importance, few quantitative studies on motivational factors affect participants' attitudes and intentions towards CC. However, this study focused on participants' motivations directly and especially proposed a model that integrates intrinsic and extrinsic factors rather than identifying fragmentary factors. Although intrinsic and extrinsic motivations may not coexist or even show conflicts, this study showed that intrinsic and extrinsic motivators could coexist in the CC process. This study shows that people who participate in CC want to share the CC activities, unlike commerce's general motives. Second, this study is the first to investigate the moderating effect of perceived social distance in the CC process. The results show that since people who experience more social exclusion feel more social closeness from the enjoyment based on sharing-related activities in the CC process than any others, they are more engaged in CC. Therefore, this study extends the CC study's scope by suggesting the study of the moderating effect on the relationship between motivation factors and CC engagement.

For practical implications, first, this study's results show that intrinsic factors such as enjoyment are important to enhance CC participation, but extrinsic factors such as reputation are important. Therefore, CC platform managers need to make the CC participants perceive that they can get enjoyment and reputation. For example, it would be good to build a reputation by giving points to active participants in the CC platform, such as trading or evaluation. Second, this study's results show that the participants' perceived social distance enhances the impact of intrinsic motivation, such as perceived enjoyment on CC participation, but does not affect the impact of external factors such as reputation on CC participation. Therefore, CC platform managers need to be aware of their propensity through evaluation records of participants. For example, participants who exhibit high enjoyment when evaluating transactions perceive highly social exclusion, so it is necessary to provide them with a way to provide enjoyment rather than reputation.

6.2 Limitations and Future Research Directions

By this research results, the present study could have several insights into participants' motivation in CC. However, it should also acknowledge the following limitations of this research. First, the present study collected the responses from university students in South Korea. There may exist some nation cultural issues in the research context. Future studies should re-test this in other countries to assure these results' reliability. Second, as the variables were all measured simultaneously, it cannot be sure
that their relationships are constant. Although the survey questions occurred in reverse order of the analysis model to prevent additional issues, the existence of causal relationships between variables is possible. Therefore, future studies need to consider longitudinal studies. Finally, this study uses perceived enjoyment and perceived reputation as motivation factors and explore social distance as a moderator. However, considering the characteristics of CC, future studies may find other motivators and other regulatory factors. For example, as an intrinsic motivation factor, the CC platform’s sustainability or extrinsic motivation factors may be considered for economic benefits. The social identity, such as interdependent self-view felt by the platform participants, can be considered a moderating factor.

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