A Study of the Influence of Consumer Self-Identity on Collaborative Consumption

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ABSTRACT

The purpose of the present study was to examine the relationships between motivation factors and trust in suppliers in the sharing economy and explore the moderating effect of self-identity on that relationship. For this, the present study collected data from 332 consumers of Airbnb in South Korea through a survey method. In the results, first, the quicker responsiveness of suppliers or more confidence in the personal information of suppliers consumers perceive in sharing economy platforms, the more they are likely to trust in suppliers. Second, positive relationship between confidence in the personal information of suppliers and trust in suppliers is stronger for consumers high rather than low in interdependent self-view. However, interdependent self-view was found to have no significance on the relationship between consumers’ perceived responsiveness of suppliers and their trust in suppliers. For research contribution, this study is the first one to examine the integral model of antecedents of trust in the platform.

KEYWORDS

Collaborative Consumption, Consumers’ Perceived Responsiveness of Suppliers, Consumers’ Perceptions of Confidence in the Personal Information of Suppliers, Self-Identity, Sharing Economy

1. INTRODUCTION

Information technology (IT) has enabled people to share new aspects of their lives, from cars to homes (Habibi & Kohli, 2022). These sharing practices have been described as a “sharing economy” (Oh, & Moon, 2016). Along with this trend, the sharing economy has become one of the most prominent topics in the computing research community, especially human-computer interaction (Lampinen et al., 2015). Consumer attitudes have changed and concerns about ecological, social, and developmental impact have increased (Albinsson & Perera, 2012). Indeed, public awareness of the environmental and ethical implications of mass consumption contributed to the emergence of the sustainable consumption concept around the beginning of the new millennium (OCSC, 2000). The Oxford Commission for Sustainable Consumption (OCSC) defines the concept as consumption that supports the ability of current and future generations to meet their material and other needs without causing irreversible damage to the environment or loss of function in natural systems. In pursuit of this ideal, diverse stakeholders (e.g., businesses, government agencies, and consumer advocates) have begun to develop initiatives to produce consumer goods that lower environmental impacts and, subsequently, provide positive social impacts (Cho, Gupta & Kim, 2015). Among the evolving examples of initiatives to promote sustainable consumption, collaborative consumption (CC) has emerged as a promising
initiative for reducing consumer waste among diverse product categories (Akbar & Hoffman, 2022). Collaborative consumption represents a range of business models fundamentally based on deviations from traditional ownership, including renting, lending, bartering, and swapping products and services (Johnson, Mun & Chae, 2016).

One outcome of recent hyper-connectivity, in concert with the higher levels of efficiency and trust, has been peoples’ willingness to engage in all kinds of social and economic exchange with members of their extended digital networks (Hynes, 2021). Technology and the applications that come with it have changed the nature of activities ranging from dating (Tinder) to referencing (Wikipedia) to traveling (Airbnb) and our connectedness is changing how humans interact. In particular, more people are open to sharing. Whether photos, statuses, or breaking news, people are offering up more to their networks than ever before.

Despite growing practical importance, there is a lack of quantitative studies on motivational factors that affect participants’ attitudes and intentions towards CC. This article explores people’s motivations to participate in CC. For this, the article is structured as follows. The next section presents the theoretical framework and background for the hypotheses. This study adopts the lens of intrinsic and extrinsic motivations in attitude formation and use intentions related to CC (Lindenberg, 2001). The context is of great interest since participation in CC communities and services is generally characterized as driven by obligation to do good for others and the environment, such as sharing, helping others and engaging in sustainable behavior (Prothero et al., 2011). However, CC may also provide economic benefits (saving money, facilitating access to resources, and free-riding), which constitute more individualistic reasons for participating. For these reasons, a real practical problem exists of how CC could become more widespread. In particular, the possible discrepancy between motivations and their effect on attitudes and behavior warrants an interesting context for research (Bray et al., 2011). And, theories on the development of the self-identity and the relationship between the self and objects of consumption suggest that the sharing of an object will be associated with closer perceived social distances (Belk, 1988). 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 applies ideas on the extended self to P2P collaborative consumption and proposes that by sharing a personal object of consumption, perceived social distances will be closer, vis-à-vis B2C exchange.

Given this situation, first, this study will suggest the theoretical background and hypothesis development in the next section. Second, it will outline data and methods in the subsequent section then. Third, it will show the results. Finally, it will conclude with a discussion on implications and suggestions for future research.

2. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Theoretical background

A collaborative economy is defined as a network of distributed groups of people that come together to use products, skills, etc. via internet technologies (Leick et al., 2022). Individuals share items and skills among a group instead of solely owning them. For instance, in the United States, Canada, and Western Europe, an average car is used only eight percent of its lifetime (Sacks, 2011). Further, in the US, an average woman does not wear sixty percent of her closet and the retail value of the unworn clothes in the closet accounts for about 220 billion US dollars (ThredUP, 2017). Hence, sharing such products could benefit consumers from both financial and practical perspectives, and positively influence society and the environment (Belk, 2014).

A group 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.
Collaborative consumption is a business model based on sharing of certain kinds of products that offers ways to either delay or avoid waste by bartering, borrowing, lending, renting, and swapping underused or unwanted used goods between groups of individuals (Ashaduzzaman et al., 2022). Furthermore, CC is an alternative ecological mode of consumption (Botsman & Rogers, 2011). Botsman and Rogers (2011) described CC as “a socio-economic groundswell that will transform the way companies think about their value propositions - and the way people fulfill their needs” (p.30). In addition, the authors also discussed that CC could be as significant as the Industrial Revolution in terms of the transition of thoughts to ownership (Botsman & Rogers, 2011).

Felson and Spaeth introduced the term collaborative consumption from a consumer behavior perspective in 1978. The following definitions have presented the various definitions of CC over the years. CCs are regarded as those events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others (Felson & Spaeth, 1978). Botsman and Rogers (2011) suggest that CC means traditional sharing, bartering, lending, trading, renting, gifting, and swapping, redefined through technology and peer communities. Ertz, Durif, and Arcand (2016) argue that CC is the set of resource circulation systems that enable consumers to obtain and provide, temporarily or permanently, valuable resources or services through direct interaction with other consumers or a mediator.

Bike sharing is the fastest growing CC service worldwide (Botsman & Rogers, 2011). One example of this service is LimeBike. Launched in 2017, LimeBike, a US-based bike sharing service, has revolutionized urban transportation in major US cities affordably and conveniently while eliminating carbon footprint. Forbes reported LimeBike has a value of $225 million, and has acquired about 300,000 users (Carson, 2017). Mohlmann (2015) discussed that in recent years, more people have used car-sharing services such as car2go and Zipcar. Zipcar promotes itself as ‘Green Brand’ by inspiring car sharing as a sustainable driving practice and making members eligible for tax reduction in certain states in the United States (Bardhi & Eckhardt, 2012). In 2017 alone, car2go, reported having operations in 26 international locations, and predicted a fivefold increase in their users to about 36.7 million by the year 2025 worldwide (Saunders, 2017). Thus, CC is no longer a niche trend. Specifically, CC services such as bike and car sharing illustrate the phenomenal growth of CC in recent years.

2.2 Hypotheses development

Lu et al. (2010) analyzed how trust influences purchase intentions for C2C in virtual communities. They found that the trust of community members affects the intent to purchase. To this end, the research model differentiates the trust structure of members and trust in the virtual community.

Given this centrality of trust, some studies have shown that reciprocity of exchange relations builds trust (Kramer, 1999). Responding individuals maintain the platform of the community according to the creation of the conversation and adhere to the most basic principles accepted socially. The entire existence of the platform is based on publishing and response, thus contributing to that presence through responsive integrity and benevolence. Previous studies have shown that perceived responses, which can be an extrinsic factor, affect trust but do not directly affect outcome variables. For example, responsiveness increases the use of IT and the environment in which it works but creates an atmosphere that does not directly increase IT use (Gefen, 2000). Thus, it is hypothesized that perceived responsiveness would increase trust.

H1: Consumers’ perceptions of suppliers’ responsiveness in sharing economy will be positively related to their trust in suppliers.

Another assumption of trust in other platform members is the degree of trust in your personal information. People have found it very comfortable to disclose personal information through computer interaction (Sproull & Kiesler, 1991). In addition, the decision to trust others should be based on
the knowledge of others derived from their personal information (McAllister, 1995). For example, a mother’s platform discussing a child’s health problems, it helps build trust in one’s ability to talk about a mother who is a mother of six children or a topic that helps practice a pediatrician. Likewise, the development of integrity and benevolence is also influenced by personal information which can be an intrinsic factor. Knowing more about suppliers should make building beliefs about standards and principles easier and contribute to increased trust because trust is built when trusted parties act as expected (Luhmann, 1979). Thus, it is hypothesized:

H2: Consumers’ perceptions of the degree to which they confide the personal information of suppliers in sharing economy will be positively related to their trust in suppliers.

Previous work has used the terms independent and interdependent to describe how individuals derive their self-identity (Markus & Kitayama, 1991). Interdependent individuals and groups tend to emphasize the needs of others, of fitting in with a harmonious group, whereas people from independent cultures tend to value expressing unique inner attributes (Markus & Kitayama, 1991). The more an individual is dependent on the group, the more they will attend to the group cues for development of their own self-identity (Triandis, 1989). Independent and interdependent self-views have been found to be associated with abstract and concrete representations, respectively. Spassova and Lee (2013) saw that when asked to describe future events, those with independent self-views responded with more abstract descriptions and a perception that even was even farther in the future than those who were interdependent. This may suggest that those with higher levels of interdependent self-views are more sensitive to environmental cues and tend to see things more concretely. An in-group boundary is an extent to which an individual sees others as part of their social group. The definitions of such boundaries keep adjusting along with situational factors, i.e., things such as common fates, outside threats, and proximity (Triandis, 1989). So, even though someone with an interdependent self-view does not just indiscriminately subordinate themselves to the needs or goals of others (Markus & Kitayama, 1991), other people would represent a much more important role and be more of a focal point of one’s actions. Given the more central nature of the in-group for an interdependent-self, inclusion may be a more discerning process, and the subjective boundary of an individual’s in-group may be narrower for the interdependent selves than for those with independent selves (Triandis, 1989). However, although individuals with strongly interdependent self-views may be much more selective about in-group membership, they are also much more sensitive to social cues. Therefore, those with an interdependent self-view would be more sensitive to social cues for perceptions of social distances (such cues are expected to be more present in a P2P collaborative consumption context). Also, P2P collaborative consumption reflects more of an exchange relationship than a communal one (Triandis, 1989), so the exchange would lack the richly detailed information that collectivists might need to expand their in-group boundary. Yet, in the context of P2P exchange, the relationships between the collaborators need not exhibit interpersonal trust as would exchange defined as sharing or gifting.

Specifically, the suppliers’ responsiveness in the process of collaborative consumption will not be achievable if other participants are involved in laziness, so collectivism in those involved in the sharing economy platform will be needed. Therefore, because those with the higher level of interdependent self-view are more likely to think that other people in sharing economy do the committed transactions, they perceive more trust in suppliers through suppliers’ responsiveness.

And, since confidence in suppliers’ personal information in the sharing economy process may not be achieved by the participant alone, those who participate in the sharing economy platform need to think the way of collectivism. Therefore, because those with the higher level of interdependent self-view are more likely to think that other people in sharing economy consider collectivism as important, they perceive more trust in suppliers through confidence in the personal information of suppliers.
H3: Interdependent self-view positively influences the relationship between consumers’ perceptions of suppliers’ responsiveness and their trust in suppliers.

H4: Interdependent self-view positively influences the relationship between consumers’ perceptions of confidence in the personal information of suppliers and their trust in suppliers.

3. METHODOLOGY

3.1 Sample and instruments

This study is based on responses from Korean consumers using Airbnb service. This study initially contacted 11 Korean individuals in Jongro district, Korea. Each first-level contact (or ‘sampling seed’) was asked to forward the invitation email to their colleagues and ask those recipients to forward it to others. The seeds of this respondent-driven sampling method (also known as snowball sampling) were diverse regarding banking specialization, age, gender, geographic region, and other characteristics.

However, this method has been challenged due to possible self-selection bias. This bias may arise when the survey topic is controversial or when differences in the size of social networks are a factor. None of these reported biases was deemed to apply to the present study’s focus. Salganik & Heckathorn (2004) suggest that respondent-driven sampling methods can generate asymptotically unbiased results. Respondent-driven sampling methods like snowball sampling do not need a pilot survey. Recognizing that bias can result from every sampling method, this study finds no reason to presume that our use of the respondent-driven sampling method resulted in any unacceptable bias that would jeopardize the results. During 25 days, 352 individuals responded to the survey, of which 332 responses were valid and usable for analysis. Among the participants, 123 were in their 20s, 113 were in their 30s, and 86 were in their 40s. 86 students and 246 others. 209 women and 123 men. There were 178 married and 154 unmarred.

The responses were analyzed before validation and model testing to identify the response set (Rennie, 1982). A response set is a tendency among subjects to respond to questions in a particular way independently of the content of the items (Kerlinger, 1973). No cases of response set were detected. Additionally, two tests of common methods variance were employed. First, with satisfactory results, Harman’s common-method one-factor test was conducted. An additional test of partial correlation was also conducted (Podsakoff & Organ, 1986). This procedure stipulates that the first factor from the principal components analysis should be introduced into the PLS model as a control variable. This is based on the assumption that the first factor is the most likely to approximate Common Method Variance (CMV) (if any bias exists). If the factor produces changes in variance, it is assumed that CMV is present (Podsakoff & Organ, 1986). As anticipated, there were no significant changes in explained variance. Thus, it appears that common methods bias is not problematic.
3.2 Measurement

Consumers’ perceived responsiveness of suppliers was measured by three items which this study developed. For example, “The suppliers on Airbnb are very responsive to my inquiries”, “I can always count on getting a lot of responses to my inquiries”, “I can always count on getting responses to my inquiries fairly quickly”. Consumers’ perceptions of confidence in suppliers’ personal information was measured by two items this study developed. For example, “The posts on Airbnb often contain the personal information of lessors”, “Lessors seem very willing to divulge private information about themselves to consumers”. Consumers’ trust in suppliers was measured by nine items which Hawlitschek et al. (2016) developed. Interdependent self-view was measured by twelve items of Singelis Interdependent Self-view Construal Scale (Singelis, 1994).

4. ANALYSIS RESULT

4.1 Reliability and validity

Tests were conducted to evaluate the convergent and discriminant validity and the reliability of reflective measures. Factor loadings were used to establish convergent validity. Loadings in excess of 0.70 on their respective factors are interpreted to indicate convergent validity (Straub et al., 2004). The second indicator of convergence was also employed. Here, a value above 0.50 for each construct’s average variance extracted (AVE) is assumed to indicate sufficient convergence. Tests results indicate that both of these conditions have been met.

Discriminant validity is demonstrated when the square root of the AVE is greater than the correlations between constructs (Henseler et al., 2014). The square rooted AVEs for interdependent self-view and trust in suppliers are 0.758 and 0.769, respectively. Their inter-construct correlation is 0.213. For the second test of discriminant validity, individual items may be assumed to possess sufficient discriminant validity if they load higher on their respective construct than on any other latent variable (Straub et al., 2004). It was true for all items. Based on both tests, the measures possess sufficient discriminant validity. Reliability is established by examining the internal consistency measure for each construct. Constructs that exceed the 0.70 level are judged to possess sufficient reliability (Fornell et al., 1982).

Alternative validity and reliability tests were conducted on the formative constructs: consumers’ perceived responsiveness of suppliers enjoyment and consumers’ perceptions of confidence in suppliers’ personal information (Bass & Avolio, 1995). To assess convergent and discriminant validity, correlation patterns between items and latent variables are depicted in a modified multi-trait, multi-method (MTMM) matrix (Loch et al., 2003).

Convergent validity is assessed via examining item construct correlations (Chin, 1995). If items load significantly on their corresponding constructs, convergent validity is demonstrated. The results indicate that item weights are significant at a 0.05 level of significance, except for six indicators. The three non-significant items were further analyzed according to prescriptions for interpreting formatively measured construct results (Cenfetelli & Bassellier, 2009).

The prescriptions developed by Cenfetelli & Bassellier (2009) distinguish between an indicator’s relative and absolute contribution to its construct. Relative contribution is the relation between an indicator and a criterion while holding other predictors constant. It is the importance of an indicator compared to other indicators of the same construct. Absolute contribution is the relation between an indicator and a criterion, ignoring other predictors. In some instances, it is necessary to consider both perspectives to develop a more accurate picture of an indicator’s influence. For example, an indicator may have a low or non-significant relative contribution to the construct. Despite this, it may still have an important absolute contribution. Therefore, it is recommended that when relative contribution (measured in terms of indicator weights) is low, absolute contribution (represented by item loadings) should also be considered.
Because four items in this study have a low relative contribution, it is necessary to consider their unique relations with their associated constructs. The absolute contributions for three items are significant. Their values are 0.723 and 0.722, respectively. Thus, although the contributions of the indicators are relatively low compared to other indicators, they have a strong, bivariate relation to their respective constructs (Nunnally & Burnstein, 1994). Furthermore, there did not appear to be any patterns in wording, polarity, or content among the items that would account for the differences, and no conceptual issues regarding the construct definitions were salient. Thus, there was no theoretical justification for removing the items and rather than discarding the items and changing the meaning of the constructs. It was determined that the items should be retained. Finally, discriminant validity evidence is presented when items correlate higher with their respective construct measures than other measures and composite values (Loch et al., 2003).

### 4.2 Analysis

This study uses the multiple hierarchical regression analysis. Table 1 shows the results. First, only sex among the control variables has a positive relationship with trust in suppliers ($\beta = .032, p < .05$). This means that women are more likely to trust suppliers than men. Second, the model 2 in Table 1 shows that the consumers’ perceived responsiveness of suppliers ($\beta = .043, p < .01$) and consumers’ perceptions of confidence in the personal information of suppliers ($\beta = .024, p < .01$) have statistical significances with trust in suppliers. Therefore, hypotheses 1 and 2 are supported.

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<th>Trust in suppliers</th>
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<td>Model 1</td>
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<tr>
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<td>Age</td>
<td>-.014</td>
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<td>Educational level</td>
<td>.021</td>
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<td>Consumers' perceived responsiveness of suppliers(1)</td>
<td>.043**</td>
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<td>Consumers' perceptions of confidence in the personal information of suppliers (2)</td>
<td>.024**</td>
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<td>Interdependent self-view</td>
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<td>(1) * Interdependent self-view</td>
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<td>(2) * Interdependent self-view</td>
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<td>Adj. $R^2$</td>
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$p < .05$, $p < .01$

Lastly, the model 3, consisting of moderators, shows the interactions between antecedents and interdependent self-view on trust in suppliers. Interdependent self-view was found to have a positive
effect on the relationship between Consumers’ perceptions of confidence in the personal information of suppliers and trust in suppliers ($\beta = .061, p < .05$). Interdependent self-view was found to have no significance on the relationship between Consumers’ perceived responsiveness of suppliers and trust in suppliers. Based on these results, when participants in sharing economy platforms have higher interdependent self-view, their perceptions of confidence in the personal information of suppliers has a stronger impact on their trust in suppliers, which is expected in H4 (see Figure 2).

5. CONCLUSION

5.1 Discussion

The present study aimed to examine the relationships between motivation factors and CC engagement and explore the moderating effect of self-identity on that relationship. The results show that the quicker responsiveness of suppliers or more confidence in the personal information of suppliers consumers perceive in sharing economy platforms, the more they are likely to trust in suppliers. And in the results, positive relationship between confidence in the personal information of suppliers and trust in suppliers is stronger for consumers high rather than low in interdependent self-view. However, interdependent self-view was found to have no significance on the relationship between responsiveness of suppliers and trust in suppliers. Based on this suggestion, this study shows that people with a high level of interdependent view can have a high level of collectivism in those participating in the sharing economy platforms.

5.2 Research contributions and practical implications

For research contribution, this study is the first to examine the integral model of trust in CC platform antecedents. Despite a growing practical importance, few quantitative studies on motivational factors affect participants’ attitudes and intentions towards sharing economy. However, this study focused on the motivations of participants directly and especially, proposed a model that integrates intrinsic and extrinsic factors rather than identifying fragmentary factors. Second, this study is the first to
investigate the moderating effect of self-identity in the sharing economy process. Therefore, this study extends the scope of the sharing economy study by suggesting the study of the factors of the moderating effect.

For practical implications, first, this study’s results show that extrinsic and intrinsic factors are important. Therefore, sharing economy platform managers need to make the consumers in sharing economy perceive that they can get quick response and information of suppliers. For example, it would be a good idea to disclose suppliers’ information such as demography, transactions, and evaluations etc.). Second, the results of this study show that the self-identity of the consumers enhances the impact of intrinsic factors such as confidence in the personal information of suppliers. Therefore, sharing economy platform managers need to be aware of their propensity through transaction records of participants. For example, participants in risky transactions on the sharing economy platform will have an interdependent self-view with high collectivism, so it will be necessary to recommend a transaction that shows suppliers’ personal information.

5.3 Limitations and future research directions

By this research results, the present study could have several insights into consumers’ motivation in sharing economy. However, it should also acknowledge the following limitations in this research. First, the present study collected the responses from consumers in South Korea. There may exist some nation cultural issues in the research context. Future studies should re-test this in other countries in order to assure this results’ reliability. Second, as the variables were all measured at the same time, it cannot be sure that their relationships are constant. Therefore, future studies need to consider longitudinal studies.
REFERENCES


