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# The Anti-consumption Effect on the Car Sharing Utility: The Moderating Effect of Brand Luxury Level\*

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#### **Abstract**

**Purpose:** This study examines the motivations that prompt customers to use commercial sharing services (CSSs), and the relationship between anti-consumption and the perceived utility of CSSs in the fashion-sharing business. This study tries to understand how the two types of anti-consumption can differentially affect consumers' perceived utility to use CSSs. In particular, as the types of CSS have diversified and many consumers have used them, it can be expected that the influence of anti-consumption on the perceived utility of CSSs can change, depending on the field where the CSS is applied. **Research design, data and methodology:** The structural equation modeling (SEM) with the SPSS 22.0 and AMOS 18.0 programs was used. **Results:** This study found that (i) two types of anti-consumption (voluntary and selective) differentially affect the perceived utilities to use CSSs; (ii) the two types of anti-consumption differentially affect the perceived utility to use CSSs depending on the level of the brand. **Conclusions:** In order to promote the spread of consumers' use in the sharing economy, it will be possible to identify what important utility is and make a meaningful contribution to the establishment of future marketing strategies.

Keywords: Anti-Consumption, Commercial Sharing Service (CSS), Car Sharing Service, Perceived Utility, Brand Luxury Level

JEL Classification Code: M10, M19, M31

#### 1. Introduction

Recently, a variety of businesses based on sharing platform have emerged, and people have become able to use sharing services for a variety of items, such as cars, bicycles, clothing, and accessories (Botsman & Rogers, 2010). Based on these sharing services, consumer preference is changing from the focus of ownership to the focus of experience and access (Belk, 2014). The sharing economy is no longer an unfamiliar concept, but a new

form of business with the development of information and communication technology.

Some 44 % of the world's population have used one of the various forms of shared services, and the forms of sharing service are changing from peer-to-peer (P2P) to increasingly professional providers (B2C) (PWC, 2017). Traditionally, the sharing of products, such as cars, clothing, and accessories, which has been performed on peer-to-peer sharing platforms, is now taking place on a sharing platform as a business. Why is the use of sharing services increasing as a business? Beyond inter-individual transactions. consumers are exploiting and expanding the sharing services offered by corporates. What causes these consumer behavior changes? These questions are important to better understand the sharing services, and to help establish a consumer-oriented marketing strategy. Although there are studies that explore growth and sustainability in terms of companies providing sharing services (Martin, Upham, & Budd, 2015), there is a lack of understanding of the various underlying mechanisms that affect the use of sharing

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services, and the type and impact of the benefits from sharing service (Yang, Song, Chen, & Xia, 2017). Despite growing practical importance, there is a lack of quantitative studies on motivational factors that affect consumers' intentions and word-of-mouth towards sharing services (Hamari, Sjöklint, & Ukkonen, 2016).

The goal of this study is to investigate the benefit of sharing services in order to explore these questions by explaining why consumers consistently use sharing services (Hennig-Thurau, Gwinner, & Gremler, 2002; Yang et al., 2017), to examine the cause and effect of these benefits of sharing services, and to examine whether there are differences in the types of sharing service. Many studies have explored the benefits of sharing services at a level derived from the relationship between consumers and personal service providers (P2P) (Belk, 2007; Yang et al., 2017). However in this study, we will examine the various benefits that may arise at the level of relationship between consumers and sharing platform.

The purposes of this study are threefold: first, this study will present a classification of benefits that can lead to the continuous use of consumers and word-of-mouth (WOM) in sharing services; second, this study will determine the differentiated effects of anti-consumption on the perception of benefits of sharing services; and finally, this study will investigate the relative strengths of the benefits, which can affect consumer use of the sharing service and WOM, according to the luxury brand level. To achieve this goal, we will conduct a survey of consumers who are aware of each of the different sharing services to identify the types of perceived benefits, and to examine the impact of anti-consumption on perceived benefits according to the sharing services sector in South Korea.

This study can contribute to the following in the field of sharing services. First, this study will provide insights into various benefits between consumers and sharing service corporates. Second, this study can help to establish an effective sharing service marketing strategy by identifying anti-consumption as a motivation for using sharing services, and verifying the differential effects of these on the benefits of various sharing services. Finally, this study reveals that the various benefits of the sharing service can have a relatively different effect on the use of the sharing service by the luxury brand level of the sharing service, and can inform the necessity of different consumer-oriented marketing by sharing of luxury brand level. Although there has been growing interest in sharing services, previous researches have focused on the motivation to use sharing services at the user level (Ozanne & Ballantine, 2010; Hennig-Thurau, Henning, & Sattler, 2007), or the technology of sharing service platform at the supplier level (Matzner et al., 2015). The benefits that have different

impacts in sharing service area covered in this study will help to better design and operate sharing services.

# 2. Theoretical Background and Hypotheses

# 2.1. Anti-consumption lifestyle: voluntary simplicity and selective consumption reduction

Lifestyle refers to what people do, why they do so, and what their acts mean to themselves and others (Blackwell, Lifestyle Miniard, & Engel, 2001). influences environmental attitudes (Aydin & Unal, 2016). Anticonsumption lifestyle refers to activities that reduce or avoid purchasing, and are caused by various factors, such as environmental sustainability, economic reasons, and psychological reasons (Lee et al., 2009; Ozanne & Ballantine, 2010). Lamberton and Rose (2012) state that there is no relationship between the use of car sharing service and anti-consumption, and Hennig-Thurau et al. (2007) maintain that in the case of illegal file sharing, anticonsumption does not work. However, those are the results of approaching anti-consumption in the strict traditional sense of reducing or avoiding consumption. Recently, various types of anti-consumption can help to understand the psychology of customers who use sharing service.

#### 2.1.1. Voluntary Simplicity

Nepomuceno and Laroche (2015) distinguished anticonsumption as frugality, voluntary simplicity, and tightwadism with regard to the motivations behind anticonsumption. Among them, voluntary simplicity refers to the anti-consumption adopted by people who want to live a simple life (Craig-Lees & Hill, 2002; Etzioni, 1999; Shama, 1981). It is considered as a way of life that rejects the highconsumption, materialistic lifestyle, and affirms what is often called 'the simplicity life' (Aydin & Kazancoglu, 2017). This lifestyle reflects the consumer's negative attitude to consumption, and features simplicity and material plainness (Leonard-Barton, 1981). The concept of voluntary simplicity was originally proposed by Richard Gregg (1936), who tried to avoid excessive consumption and avoid consumption as a life goal.

According to Etzioni (1999), voluntary simplicity includes two ideas: self-centeredness, and altruistic considerations. First, self-centered voluntary simplicity means that consumers voluntarily reduce their consumption by their own busy life or environment, and consume only what they need. So they want to use their resources more efficiently, and they spend relatively boldly on what they want (McDonald, Oates, Young, & Hwang, 2006). According to Shama and Wisenblit (1984), voluntary

simplicity has the meaning of material simplicity, and refers to the simplification of life as a consumer or an individual.

Secondary, voluntary simplification is also related to the consumption simplification behavior for ethical purposes. These are consumers who abstain from consumption because of environmental protection and moral reasons. According to Peyer, Balderjahn, Seegebarth, and Klemm (2017), voluntary simplifiers purchase more green products, and show a high interest in the environment and a sustainable economy. It also turns out that compared to other consumers, they are looking for high value in sharing. Therefore, they can be attractive consumer groups in the ecological product-producing industry and alternative consumption sectors, such as sharing services.

Based on the previous research, it can be seen that the voluntary simplifiers have a positive attitude towards the sharing service. According to Shaw and Newholm (2002), voluntary simplifiers were favorable to the use of sharing services such as Airbnb. They enjoy using low-cost Airbnb services to reduce unnecessary consumption and to obtain effective benefits while traveling, thereby increasing satisfaction with consumption (Fullagar, Markwell, & Wilson, 2012).

#### 2.1.2. Selective Consumption Reduction

Selective consumption reduction is simillar to small luxury, and a type of partially voluntary anti-consumption lifestyle (Sung, 2016). With financial constraints, consumers feel psychological pressure (Sharma & Alter, 2012). Consumers apply self-regulation, considering what they need and want in priority, of how much they can spend in an environment where they cannot buy what they want (Carlson, Vazire, & Oltmanns, 2013).

The selective consumption reduction lifestyle is consumer behavior that is economically constrained, but consumer behavior that seeks satisfaction from small-scale consumption. Consumers who think that they are worthy of their own consumption show bolder spending (Ahn. Chae. & Lee, 2016). For example, enjoying high-end desserts that are more expensive than lunches, purchasing small accessories or small items that are affordable, and occasional use of premium taxis. In general, it is a small luxury to purchase a less expensive luxury item, as a way of expressing one's own value, enjoying oneself, or improving one's quality of life (Oh, 2009; Ahn et al., 2016). Therefore, these consumptions often occur in hedonic products and services, but not commodities or practical necessities in everyday life. Selective consumption reduction behavior always occurs only within the scope of what the consumer can afford, but only within specific values that they consider important Lawson, Gleim, Perren, and Hwang (2016) suggested that sharing services are spreading that

emphasize the value of the process of experiencing, rather than ownership. As a result, consumers have become more interested in the selective consumption reduction lifestyle of becoming satisfied with meeting their particular needs.

# 2.2. The Types of Utility in Sharing Service

The benefit that consumers gain by using the sharing service is indicated by the usage of the sharing service (Lamberton & Rose, 2012; Albinsson & Perera, 2012; Joo, 2017). So far, several studies have demonstrated how consumers experience the value of using a sharing service as an alternative to traditional consumption. Various motivations, such as the enjoyment of sharing (Hamari et al., 2016), economic gain (Bucher, Fieseler, & Lutz, 2016), utility (Hellwig, Morhart, Girardin, & Hauser, 2015; Möhlmann, 2015), and moral and social value (Bucher et al., 2016), were suggested in this study. For example, consumers using sharing-car services, such as Uber, can experience economic incentives to use cars at lower cost, rather than buying a car (Neoh, Chipulu, & Marshall, 2017). Recently, as the online community of customers using sharing service has been activated and participation is becoming active, it is possible to have social benefit from social exchange among customers using sharing car service (Bucher et al., 2016). In addition, we can experience hedonic benefits that can be used to enjoy a relatively new type of business model, sharing service, or to use a low economic burden, instead of buying various products (Hamari et al., 2016). In addition, consumers who are recently using sharing services are increasing their interest in other benefits besides their interests. As a result, consumers are increasingly using the sharing service due to moral motives that originate in environmental pollution and unfair trade (Belk, 2014). Lamberton and Rose (2012) assume that a shared object may convey utility not only in the form of perceived economic value, but also other forms of utility, such as social utility, referring to the approval gained by reference groups, as well as moral utility, referring to the perceived contribution to a good or worthy cause.

Research on various motives related to the consumption of products has been conducted in many studies, such as online and offline businesses, and access-based consumption services (Bardhi & Exjhardt, 2012; Finkenauer, Gallucci, van Dijk, & Pollmann, 2007). However, in the field of commercial sharing services, a form of sharing economy, research on consumer utility is still lacking (Zhu, So, & Hudson, 2018). Thus, in this study, we will investigate the benefits of using sharing services, and examine their relationship with the anti-consumption lifestyle.

#### 2.2.1. Economic utility

The motivations for using the sharing service are social factors, such as altruism, pro-social behavior, and social affiliation. Utilitarian factors include direct or indirect reciprocity or resource saving (Belk, 2007). Many researchers have proposed monetary benefit as a key factor for consumers to use sharing services (Lamberton & Rose, 2012). The cost saving has been found to be a positive factor affecting the satisfaction of the sharing service (Möhlmann, 2015). Concerns about cost have a direct impact on the use of sharing services. This is because sharing is usually less expensive than owning a product (Moeller & Wittkowski, 2010). The economic benefit, which is an important reason to use the sharing service, is related to the utilitarian value (Bostman & Rogers, 2011; Gansky, 2010; Lamberton & Rose, 2012). In most commercial sharing service systems, the payment of fees is common, and in this process people are concerned about the economic benefits (Lamberton & Rose, 2012). These considerations suggest the following two hypotheses:

**H1-1:** Voluntary simplicity positively affects customer's perceived economic utility in using sharing service.

**H1-2:** Selective consumption reduction positively affects customer's perceived economic utility in using sharing service.

#### 2.2.2. Social utility

Seeking a social link is an important motivation for sharing (Belk, 2014; Wittel, 2011). Sharing not only creates new connections, but also helps maintain existing relationships (John, 2013). In most cultures, sharing food or simple commodities is a ritualized social activity. The social utility of sharing has been found to be important in the study of online file sharing (Mannack et al., 2004). In the sharing of physical products through the Internet, social motivation means the formation of a new social tie, and becoming a member of the community (Butcher et al., 2016). Based on these arguments, the following hypothesis is proposed:

**H2-1:** Voluntary simplicity positively affects customer's perceived social utility in using a sharing service.

**H2-2:** Selective consumption reduction positively affects the customer's perceived social utility in using a sharing service.

#### 2.2.3. Hedonic utility

Hedonic utility can be related to the fun and excitement of meeting new people, playing a new role, or expanding the usefulness of possession at an unexpected social level. The unique experience of using new types of products is related to hedonic value (Miao, Lehto, & Wei, 2014).

Airbnb, one of the sharing services, wants to convey fun and enjoyable images to consumers through various channels. The advertisement of a unique house image and an enjoyable experience emphasizes a higher diversity than that offered by existing accommodation, and seeks to stimulate hedonic motivation. Consumer's hedonic and utilitarian motives have been researched in many studies, because they can have a significant impact on consumer attitudes and behavior (Alba & Williams, 2013; Dhar & Wertenbroch, 2000; Lee, 2010). The hedonic dimension of consumption refers to the experience of a unique product or service, or the emotional connection that a consumer experiences (Overby & Lee, 2006).

Tsai, Chen, and Horng (2008) argued that the key to sharing experience is hedonic value. In addition, Hamari et al. (2016) have also argued for hedonic value as a strong motivator for consumers to choose Airbnb, such as community-based accommodation, community interaction, and unique travel experiences. Therefore:

**H3-1:** Voluntary simplicity positively affects customer's perceived hedonic utility in using sharing service.

**H3-2:** Selective consumption reduction positively affects customer's perceived hedonic utility in using sharing service.

#### 2.2.4. Moral utility

Moral utility is based on the idea that sharing is a more meaningful, sustainable, and environmentally-friendly alternative to possessing things (Belk, 2007; John, 2013). Therefore, sharing has been considered as more sustainable than simple eco-friendly activities (Botsman & Rogers, 2010) and has appealed to environmental and ecologically concerned consumers (Hamari et al., 2016). Sharing has a strong altruistic component, because it comes, at least partially, from the willingness to help and care for others (Belk, 2010). In the context of collaborative consumption, sharing has been discussed as a form of careful consumption (Buczynski, 2013). Based on this information, the following hypothesis is proposed:

**H4-1:** Voluntary simplicity positively affects customer's perceived moral utility in using a sharing service.

**H4-2:** Selective consumption reduction positively affects customer's perceived moral utility in using a sharing service.

Recently, various commercial sharing services have been launched in the market, but the sharing service is in the introductory stage, and it is necessary to attract more users. The word-of-mouth from the user can have a significant effect on the market penetration of various users. In this respect, this study considers that the various utilities of the

sharing service may influence the consumer's intention to purchase, and further influence the word-of-mouth. Hamari et al. (2016) found that extrinsic and intrinsic motivation can have a positive impact on the purchase intention of the sharing service. Therefore, this study seeks to show that the proposed motivation of sharing service can positively affect consumers' purchase intention:

**H5-1:** Economic utility positively affects the intention-to-use of a sharing service.

**H5-2:** Social utility positively affects the intention-to-use of a sharing service.

**H5-3:** Hedonic utility positively affects the intention-to-use of a sharing service.

**H5-4:** Moral utility positively affects the intention-to-use of a sharing service.

In addition, many previous researches have revealed that various motivations of consumers can positively affect future consumers' word-of-mouth (Lien & Cao, 2014; Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004; Kim et al., 2020). Based on this, this study aims to examine whether the motivation for consumers' sharing service affects the word-of-mouth intention as well.

- **H6-1:** Economic utility positively affects the word-of-mouth about sharing service.
- **H6-2:** Social utility positively affects the word-of-mouth about sharing service.
- **H6-3:** Hedonic utility positively affects the word-of-mouth about sharing service.
- **H6-4:** Moral utility positively affects the word-of-mouth about sharing service.

#### 2.3. Brand luxury level

As the economy grows, the luxury market also gradually grows (Kapferer 2014; Han et al., 2010; Janssen, Vanhamme, & Leblanc, 2017). The characteristics of luxury products are considered as scarcity and limited availability (Janssen et al., 2017). Luxury goods are represented by a set of characteristics that distinguish them from the required daily necessities or necessities of the same category. These characteristics include high price, high quality, aesthetic importance, scarcity, and symbolism (Heine & Phan, 2011).

Due to the characteristics of these luxury goods, many consumers can't easily buy luxury goods, and might prefer to use them through sharing services. As the number of commercial sharing services has increased, the types of products covered by this service have also started to vary. Uber offers a variety of services ranging from general car to

luxury car, and offers a variety of brand diversity in business models that share products.

In previous studies, the consumer's motivations that affect luxury consumption were various, such as hedonism, perfectionism and situational conditions (economic, societal, and political factors) (Vigneron & Johnson, 1999, 2004). The consumption of luxury goods is meaningful as a means of expressing value to consumers and others. In this way, according to the luxury level of the brand provided through the sharing service, the moderating effect on the relationship between the consumers' perceived utility and the intention-to-use the sharing service can be obtained. Although there have been many studies of luxury brands in previous studies, little research has been done on the effects or effects of luxury brands in the sharing economy area. Therefore, this study aims to investigate whether the brand luxury level has a moderating effect on the relationship between variables in the study. Based on the above:

**H7:** The brand luxury level will have a moderating effect on the relationship between anti-consumption lifestyles and consumers' utility of using sharing services.

The overall conceptual model of this study is as follows Fig. 1.

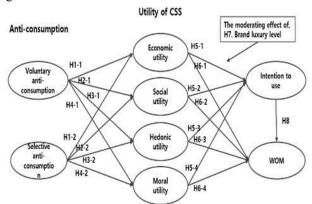


Figure 1: The proposed model and hypotheses

This study examines the relationship between the anticonsumption lifestyle and the consumer's motivation in the market of car sharing service, where commercial sharing service is active. To do this, this study creates a brand that provides a virtual car sharing service.

#### 3. Methodology

# 3.1. Samples and Procedures

The empirical study was conducted by drawing data from an online survey of customers in Korea. The data were

collected by Macromillembrain, the largest online research company in South Korea, for about two weeks in July 2018.

Table 1: Demographic information

		(%)		
gondor	Female	131(41.3)		
gender	Male	186(58.7)		
	20-29	102(32.2)		
age	30-39	110(34.7)		
	40-49	105(33.1)		
Monthly income	less than \$884	7(2.2)		
	\$885~\$1,759	12(3.8)		
	\$1,760~\$3,536	99(31.2)		
	\$3,537~\$5,296	87(32.1)		
	\$4,576~\$7,321	110 (34.7)		
	more than \$7,322	89(28.2)		
Car sharing	yes	123(38.8)		
service experience	no	159(56.4)		
Total sa	Total sample			

The data on car sharing service is 317. In the sample, 42.3 % were female, and 66.9 % were between 20 and 39 years old [Table 1]. In this study, the proposed hypotheses were tested using structural equation modeling (SEM) with the SPSS 22.0 and AMOS 18.0 programs.

#### 3.2. Measurement

The measurement scales for this study were drawn from the extant literature, with only minor modifications needed to modulate the study's context. The two types of anticonsumption lifestyle were measured by three items, respectively (Iwata, 2006). Consumer's CSS utility consisted of economic, social, moral, and hedonic utility. Economic utility was measured by three items (Hamari et al., 2016). Social utility was measured by three items (Bucher et al., 2016). Moral utility was measured by two items (Bucher et al., 2016). Hedonic utility was measured by two items (Voss, Spangenberg, & Grohmann, 2003). Furthermore, intention-to-use and word-of-mouth scales were adopted from Bhattacherjee (2001) and Harrison-Walker (2001), respectively. All items used a seven-point Likert scale (1=strongly disagree thru 7=strongly agree) [Table 2].

Table 2: Summary of scale measures

	adapted from Iwata (1999, 2006)
Voluntary anti- consumption	(1) I fully adhere to a simple lifestyle and only buy necessities.
	(2) Even when I have money, I never buy things unexpectedly.
	(3) I would adopt a simple lifestyle even if I were able to live extravagantly.
	adapted from Ahn et al. (2016) and Sung(2016)
Selective anti-	1) I enjoy small luxuries as much as possible to comfort me and pursue self-satisfaction
consumption	2) Sometimes I boldly consume meaningful products for me
	I usually buy one or two products that are not expensive but give a satisfactory feeling     (e.g. coffee, dessert, sneakers, etc.)
Economic utility	adapted from Bock et al. (2015)
	1) It is efficient to use car sharing service.
	2) The car sharing service allows me to use the car without paying the risk of buying the wrong product even if I pay a large sum.
	3) Car sharing services can save you the effort of owning and managing your products.
	adapted from Bucher et al. (2016)
	1) Using a car sharing service will be a choice to show others who I am.
Social utility	2) Using a car sharing service will allow you to connect people with similar values.
	3) If I use a car sharing service, I will experience a sense of belonging with other users as I would in an online community.
	adapted from Bucher et al. (2016)
Hedonic utility	<ol> <li>The process of using the car sharing service itself (searching, sharing and returning my favorite brand) will be fun for me.</li> </ol>
	<ol><li>Using a car sharing service will provide you with the freedom to use the product without boredom because you do not own it.</li></ol>

	Items are made by reconstructing Bardhi and Eckhardt (2012)			
Moral utility	Using sharing services of vehicle sharing services can be a way to reduce waste of natural resources due to production and consumption.			
	2) Using sharing services of vehicle sharing services will play a positive role in reducing environmental pollution.			
	adapted from Bhattacherjee (2001)			
Intention to use	1) I expect to use car sharing service often in the future continuously.			
	2) I will often use products or services through car sharing services in the future			
	3) I would rather use a car through car sharing service rather than buying a luxury car myself.			
	adapted from Harrison-Walker (2001)			
WOM	1) I will be proud to tell people that I use car sharing service.			
VVOIVI	2) I will often tell people about car sharing services.			
	3) I am more likely to talk about car sharing services than other products or services.			

#### 4. Results

## 4.1. Reliability and Validity

This study used structural equation modeling (SEM), which is a multivariate statistical technique for structural theory. Additionally, a comparative study was conducted on the level of car brands. Table 3 shows the exploratory factor analysis of the measurement scales for two types of anticonsumption lifestyles, four types of CSS utility, intentionto-use sharing service, and word-of-mouth intention. Based on these results, the two types of anti-consumption lifestyle and four types of CSS utility were identified. In this study, CMV was confirmed by Harmon's single factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) because the common parameter variance (CMV) problem could occur in data collected through the same surveys of independent variables and dependent variables. As a result of the unrotated factor analysis for all variables used, more than one factor was extracted, and the most explanatory factor was 41.922 %, which explained the reasonable part of the total variance (under 50 %) explained in this study. (Lance, Dawson, Birkelbach, & Hoffman, 2010). It was therefore concluded that there was no concern about the risk of CMV in this study. Second, Cronbach's alpha score was used to evaluate the internal consistency of the measurement. Cronbach's alpha was found to be greater than .80 in all variances, in accordance with the Churchill (1979) standard. Table 3 shows the reliability of the scales. The data matrix can be examined through Kaiser-Meyer Olkin (KMO), which verifies sampling adequacy, and Bartlett's test for sphericity (Hair, Anderson, Tatham, & William, 1998). The closer the KMO value is to 1, the higher the interrelation between variables. If the significance level of the Bartlett's test value is less than 0.05, it is judged to be appropriate (Hair et al., 1998). A Bartlett's

test of sphericity is significant at 0.00 with a KMO of 0.884, as seen in Table 3.

Table 3: Scale means, Reliabilities, and standard deviations

	Eigen values	Cronbach's Alpha	Mean	SD	AVE	
VA	2.67	.82	4.45	1.10	.62	
SA	2.37	.82	4.89	1.07	.61	
EU	2.37	.83	4.86	1.08	.63	
SU	2.67	.89	3.95	1.25	.75	
HU	1.52	.83	4.91	1.02	.71	
MU	1.99	.93	4.11	1.24	.87	
Intention	2.15	.91	4.15	1.23	.79	
WOM	2.91	.92	4.12	1.24	.81	

Total variance : 82.707% KMO and Bartlett's test

Kaiser–Meyer–Olkin measure of sampling adequacy: .89
Bartlett's test of sphericity: Approx. Chi-square=5112.43, d.f.=231, Sig.=.000

Third, we assessed the validity of the measures by conducting an initial confirmatory factor analysis (CFA) to establish the reliability and discriminant of the validity of the multi-item scales by Anderson and Gerbing (1988) [Table 4]. This statistic was sensitive to the sample size and model complexity, even though the chi-square values for this model were significant (355.177 with 181 d.f, p=.00). The goodness-of-fit index (GFI), Tucker-Lewis index (TLI), comparative fit index (CFI), and a low-root mean square error of the approximation (RMSEA) are more appropriate to assess the model fit (Bagozzi & Yi, 1988; Bearden, Sharma, & Teel, 1982). GFI (0.896), TLI (0.945), CFI (0.957), and RMSEA (0.059) indicate a satisfactory model fit. All individual scales exceed the recommended standards proposed by Bagozzi and Yi (1988) in construct reliability

(greater than 0.6) and average variance extracted (AVE) by the latent construct (greater than 0.50). The strength of the factor loading of each observed measure on its proposed latent variable implies convergent validity. All the standard factor loadings of CFA items were above the cut-off value of 0.50; therefore, the loadings were acceptable (Hildebrandt 1987; Steenkamp & Van Trijp, 1991, p. 289).

Thus, these results support the convergent validity of the measures. The discriminant validity is obtained by comparing the squared value of each pairwise correlation estimate and AVE [Tables 4 and 5]. Discriminant validity is achieved if all AVE values are larger than the squared correlation estimate (Fornell & Larcker, 1981).

Table 4: Confirmatory factor analysis results

	Standard loading	S.E.	C.R.	
	.73	.08		
Voluntary anti-consumption	.92	.07	.83	
	.69	.08	]	
	.72	.06		
Selective anti-consumption	.83	.07	.82	
	.78	.07		
	.69	.07		
Economic utility	.88	.06	.83	
	.79	.06		
	.80	.07		
Social utility	.91	.06	.90.	
	.88	.06		
Hedonic utility	.80	.06	.83	
nedoffic utility	.88	.06	.03	
Moral utility	.89	.07	93	
Woral utility	.96	.06	93	
	.89	.06		
Intention to use	.94	.06	.92	
	.82	.07		
	.81	.06		
WOM	.94	.06	.93	
	.94	.06		

Table 5: Scale Correlations

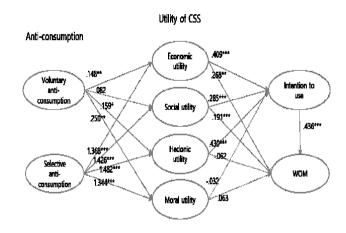
Scale	VA	SA	EU	SU	HU	MU	ltU	WOM
VA		.0002	.01	.00	.00	.02	.00	.01
SA	01		.06	.09	.18	.05	.12	.08
EU	.12*	.41**		.23	.55	.31	.28	.34
SU	.01	.31**	.48**		.21	.39	.35	.38
HU	.06	.43**	.75**	.52**		.27	.34	.33
MU	.14*	.23**	.56**	.63**	.53**		.22	.32
Intention	.02	.36**	.54**	.58**	.58**	.47**		.53
WOM	.08	.28**	.58**	.62**	.57**	.57**	.73**	

<sup>\*\*\*</sup> p<.001, \*\* p<.01, \*p<.05 (2-tailed)

Construct correlations appear below the diagonal. Squared correlations appear above the diagonal.

# 4.2. Hypothesis Testing

The hypothesized relationships were tested using SEM. A covariance structural analysis (AMOS 18.0) testing the proposed model resulted in a chi-square statistic (604.888, d.f.=191, p=.00). Although the chi-square value was significant, this statistic is sensitive to the sample size and model complexity. To overcome these limitations, many goodness-of-fit criteria can be used to estimate an acceptable model fit. Among them, the comparative fit index (CFI), the goodness-of-fit index (GFI), and the Tucker-Lewis index (TLI) are preferred measures (Bagozzi & Yi, 1988; Bearden et al., 1982). CFI (.916), GFI (.838), IFI (.917), TLI (.898) AGFI(.796) and RMSEA (.084) indicate a satisfactory model fit. Figure 2 summarizes the results of the hypotheses test, and shows that almost all hypotheses were supported. But contrary to expectations, H2-1, H5-4, H6-3, and H6-4 were not significant.



\*\*\* p<.001, \*\* p<.01, \*p<.05 (2-tailed)

Figure 2: Results of the hypotheses tests of base model

Additionally, in this study, the luxury level of car brand is expected to have a moderating effect on the relationship

between anti-consumption lifestyle and the utility of car sharing. To evaluate the car brand's luxury level, this study tried to pre-test the consumer's perception of brand luxury level. We received responses to the level of automobile brands for 57 consumers interested in automobiles (36 males and 21 females). The logo and name of the car brand were presented. Respondents saw this and categorized it into the high luxury brand, mid-high luxury brand, and normal brand. Next, for the classified brands, the brand's luxury level was evaluated on a 7-point scale. Based on the results of the pretest, this study could set three luxury levels of car brands: 1) high luxury level (ex. Lamborghini, Bugatti etc.), 2) midhigh luxury level (ex. Audi, Benz, Lexus), 3) normal level (ex. Hyundai, Toyota, GM). To check these 3 types of luxury brand level, manipulation check of the between group difference was done (M<sub>high</sub>=6.55, M<sub>mid</sub>=6.01, M<sub>nor</sub>=5.27, F=18.204, p<.000). Based on this result, the hypotheses were tested using moderated multiple regressions. Interaction terms were made by multiplying the mean centered scores for each utility of car sharing with the score of the brand luxury level (Iacobucci, Schneider, Popovich, & Bakamitsos, 2016).

The results show a significant interaction between hedonic utility and brand luxury level on the intention-to-use of car sharing ( $\beta$ =.102, p<0.05), in partial support of H7. Interaction between social utility ( $\beta$ =-0.166, p<0.01), hedonic utility (B=.100, p<0.05) and brand luxury level on the WOM intention in support of H7 was partial as well. These results mean that the brand luxury level positively moderates the relationship between hedonic utility and the intention-to-use and WOM, but negatively moderates the relationship between social utility and the WOM. The brand luxury level gets lower as the score gets higher. Thus, the author can make the interpretation that the lower level of brand with hedonic utility might positively impact on the intention-to-use and WOM. And, the high luxury level of brand with social utility might positively influence the WOM.

<b>Table 6:</b> Results of regression analysis for the moderator variable: Brand level effective of the control of t	Table 6: Results	of regression	analysis for the	moderatory	variable: Brand	level effect
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	1		2		3	
	Dependent variable		Depende	Dependent variable		ent variable
	Intention	WOM	Intention	WOM	Intention	WOM
EU	.17*	.25***	.16*	.24***	.37**	.09
SU	.36***	.28***	.37***	.28***	.36**	.59***
HU	.33***	.23**	.33***	.23***	.13	.04
MU	.01	.18**	.01	.18**	.11	.17
BL			.10	.02	.36	18
EU*BL					02	.09
SU*BL					05	17**

HU*BL					.10*	.10*
MU*BL					09	01
R <sup>2</sup>	.46	.53	.46	.53	.48	.55
Adj <sup>2</sup>	.45	.52	.45	.52	.46	.54
F-change	66.42***	86.89***	2.50	.09	2.18*	3.59**

<sup>\*\*\*</sup> p<.001, \*\* p<.01, \*p<.05 (2-tailed)

In order to examine in more detail how the influence of the utility of the car sharing service varies depending on the brand level, we examined how the influence of hedonic utility and social utility varies depending on the brand level. Based on Hayes's (2013) study, the Process model 14 was used to examine the change of the path coefficient (hedonic utility-wom) according to the brand level (high: .2680, normal: .0708, LLCI =-. 3430, ULCI =-. 0515). In other words, it can be seen that the more the luxury brand, the greater the influence of the consumer's hedonic utility on WOM. The influence of the social utility was strong as the brand level decreased (high: -.1517, mid-high: .0760, normal: .3038, LLCI = .0783, ULCI = .3771). Also, it can be confirmed that 0 is not included between the LLCI and ULCI values. The influence of the hedonic utility on the intention to use dependent variable was strong as the brand .1484, level decreased (high: mid-high: .3732, normal: .5979, LLCI = .0326, ULCI = .4168).

#### 5. Discussion

## 5.1. Summary and discussion

The purpose of this study is to classify the anticonsumption lifestyle consumers as voluntary anticonsumption and selective anti-consumption, and to investigate how the four types of utility of the sharing service affect the attitude and WOM intention. As a result, this study found that the utilities that are important in CSS differ for each voluntary anti-consumption lifestyle consumer and selective anti-consumption consumer. Voluntary anti-consumption consumers consider moral, hedonic, and economic utility as important, while anti-consumption selective consumers consideration the social, moral, hedonic, and economic utility of CSS. In addition, economic, social, and hedonic utilities have a positive impact on the WOM intention for CSS, and economic and social utility have a significant influence on CSS attitude.

In addition, according to the luxury level of the CSS automobile brand, consumers have a moderating effect on the relationship between CSS utility and attitude of the CSS and WOM intention. The lower the luxury brand level, the

more positive effect of hedonic utility has on intention, while the more social utility has a negative effect on WOM.

#### 5.2. Implications for theory and practice

#### **5.2.1.** Implications for theory

The theoretical implications of this study are as follows. First, this study tries to examine how the anti-consumption lifestyle tendency, which was not addressed in previous studies (Bardhi & Eckhardt, 2012; Caprariello & Reis, 2013; Lamberton & Rose, 2012), has a differential effect on the utility of the sharing services. This present study fills this research gap by identifying the types of anti-consumption lifestyle, and the ways in which the anti-consumption lifestyles influence the utility of CSSs in the car sharing area. This will help to establish a strategy to increase the acceptance of sharing services in the current situation where the market of sharing services is expanding (PWC, 2017). This study examines the relationship between the utility of CSSs and the WOM intention by dividing the utility of the sharing service into economic, social, moral and hedonic utilities.

Second, this study comprehensively summarizes the various utilities of CSSs that have been made, and confirms the utilities that consumers consider important when using CSSs. Through CSSs, consumers can experience economic, social, moral, and hedonic utility. These utilities were verified through empirical surveys, which increased the possibility of using the CSS utility in future studies.

Third, there has to date been no research on the luxury level of brands in sharing services. However, when consumers use sharing services, they may take advantage of the opportunity to use new products or services, rather than to take them out of consideration. Therefore, this study tries to grasp the importance of the utility of CSSs according to the luxury level of the brand that may be different, and the effect on attitude and WOM intention of CSSs that can be affected. As a result, this study found that the brand luxury level had a significant moderating effect on the relationship between each utility and attitude, and the WOM intention of CSSs.

#### 5.2.2. Implications for practice

This research provides several managerial implications for a CSS marketing strategy in a sharing economy. First, this study can be applied to marketing strategy by using various utilities of CSSs according to consumer characteristics in the developing sharing service market. As the sharing market is growing and the number of participating company increases, competition becomes more intense, and efficient marketing can become possible based on the utility of CSSs, which is important to consumers.

Second, this study suggests that brand luxury level can be a new strategic tool in sharing services. Although in the existing sharing service marketing, the brand luxury level has never appealed, in the future it will be necessary to reflect the utility preference for the consumer's sharing service according to the luxury level of the brand. In particular, in the car sharing area, it is possible to establish a detailed marketing strategy by using the result of this study that responds to different utilities, depending on which brand of vehicles the consumers share.

#### 5.3. Limitations and future research

The limitations of this study are as follows. First, this study examined car sharing business among sharing services. However, since the category of sharing services has recently been diversified, it has spread to fashion sharing, accommodation service sharing, bike sharing, and so on. Therefore, in future research, it will be necessary to carry out a study to compare more diverse sharing service fields by examining consumers' behaviors and characteristics in various sharing service fields.

Second, this study examined the main utility that influences the acceptance of the sharing service. The attitude of the consumers to the sharing service can differ by country and culture. The preference for sharing may be different according to the cultural environment of consumers, and this will affect the acceptance intention of sharing service. This study conducted a consumer survey on sharing service in the Korean market, but comparative study between countries in the future will help the marketing strategy of the global sharing service company.

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