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Motives for Participating in Sharing Economy: Intentions to Use Car Sharing Services

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Abstract

Purpose – Sharing economy is a promising research topic as a complementary approach for solving difficult issues resulting from market economy. Motive factors for consumer participation in sharing economy are necessary to facilitate the growth of sharing economy. This study analyzes motives for participating in sharing economy using samples from a car sharing service in South Korea.

Research design, data, and methodology – Four hypotheses drawn from a new research model integrating the relationships between economic and social value, social value, and the intention to use sharing economy services were proposed. 292 valid samples were collected from Socar users in South Korea. Multiple regression analysis was employed to test the hypotheses.

Results - An empirical study identified the importance of convenience and time savings as determinants of intention to use continuously a car sharing service. Cost savings and social value did not significantly influence the intention to use car sharing service.

Conclusions - The present study implies that managers working in sharing economy don't have to miss a role of convenience. Although a new finding implies that convenience is an important factor influencing car sharing service, the present study has a limitation of generality that samples are mostly collected from the age range of 20 to 30 years.

Keywords: Sharing Economy, Car Sharing, Collaborative Consumption, Participative Motive, Redistribution Market.

JEL Classifications: M10, M14, M19.

1. Introduction

Sharing economy refers to economic activities giving or taking possession, rights of usage, or rights of enjoyment in common by people. Sharing economy is regulated by a set of social relations such as friendships and relationships, while commercial economy is governed by the logic of market like price mechanism (Lessig, 2008). Terminologies similar to sharing economy are collaborative consumption, collaborative economy, and peer economy (Botsman, 2013; Belk, 2014). Botsman (2013) suggested three types of sharing economy as shown in <Table 1>. Product service

systems are to provide goods as a service rather than sell them as tangible goods. Car sharing service such as Zipcar and Socar is an example of the product service systems. Redistribution markets refer to swap or exchange used or pre-owned goods in open marketplaces between someone who are not needed and those who are needed. eBay, Auction, and Gmarket are their typical examples. Collaborative lifestyles enable individuals to share or exchange intangible assets including space, skills, time, and money in communities. Airbnb and Kozaza offer a service sharing houses and spare rooms. Kickstarter is an instance of the crowd funding service.

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<Table 1> Classification of sharing economy

Overview		Sharing resource	Case
Product service systems	A type of using goods as a service rather than owning them as products through purchase	Sharing car, bicycle, etc.	Zipcar, Car2go, Socar, Greencar, etc.
		Open Source Software (OSS), Cloud computing service, or SaaS (Software as a Service)	Linux, Dropbox, Salesforce.com, Amazon web service, Naver cloud, etc.
Redistribution markets	A type of redistributing used or slack goods	Swapping or redistributing goods in open marketplaces including flea market	eBay, Auction, Gmarket, etc.
Collaborative lifestyles	A type of sharing or exchanging less-tangible assets like space and skills together with people having similar interests and needs	Sharing houses and spare rooms, and other idle capacities such as working spaces, parking lots, experience, and money	Airbnb, Kozaza, TaskRabbit, Albachunkuk, Zopa, Kickstarter, Quirky, etc.

Motive factors for consumer participation in sharing economy is necessary to facilitate the growth of sharing economy. The objective of this paper is to investigate factors affecting the intentions to use car sharing continuously as an aspect of motives participating in sharing economy. The present study deals with Socar which is a typical successful example of car sharing service in South Korea. Socar is similar to Zipcar service rather than Uber because Socar and Zipcar are B2C service while Uber is P2P service. Car sharing market in South Korea is growing rapidly and the number of users also keeps fast growth from 200,000 in 2003 to over 4.6 million in 2016 (The Korea Herald, May 9, 2016; Etnews, Jan. 12, 2017). GreenCar launched the first car sharing service in 2011. Everon is doing electric vehicle sharing service. Estimated global revenues in 2021 will be reached to 4.7 billion Euro (Bert, et al., 2016).

2. Research Model and Hypotheses

Information Technology (IT) is an enabler of sharing economy because it facilitates to match those who have slack resources with those who need them. The companies in sharing economy do not own the performing assets that generate revenue such as hotel and car, but provide the service matching owners and people who need owner's assets on the online platform.

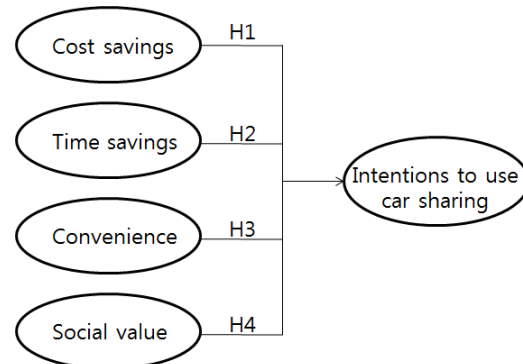
The history of sharing economy which is known to be first used by Lawrence Lessig in 2008 goes further back into the past. Benkler (2004) demonstrated an advent of sharing as a style of economic production. Hardin (1968) suggested a social dilemma called the tragedy of the commons. In Korea, Pumasu which is to work together for helping each other in a community is also a type of traditional sharing economy.

<Table 2> shows previous studies regarding sharing economy using quantitative approach based on survey.

<Table 2> Empirical studies regarding sharing economy

Author (year)	Overview
Hamari et al. (2015)	Analyzing the relationships between sustainability, enjoyment, reputation, and economic benefits, attitude, and behavioral intention by using structural equation model.
Choi & Park (2014)	Analyzing regional factors influencing on the frequency of car sharing such as tax revenue, commercial centric, station, and bus spheres.
Kim, Lee, & Choi (2014)	Analyzing preference of car sharing by age. Younger generation has higher intention to use than elder generation.
Yang & Ahn (2016).	Analyzing the relationships between motivation, perceived security, attitude, and loyalty toward Airbnb.

The rising of sharing economy results from ICT and online platform facilitating information matching. Sharing economy based on ICT offers motivations of consumer participation such as economic benefits and convenience. Sharing economy also helps solving societal problems such as hyper-consumption, pollution, and poverty (Hamari et al., 2015). Motives participating into sharing economy such as cost savings, time savings, convenience, and social value are determinants of intentions to use continuously car sharing. Therefore, the research model shown in <Figure 1> is proposed:



<Figure 1> Research model

Extrinsic and intrinsic rewards have been studied as research topics of individual motivation (B'enabou & Tirole, 2003; Yang et al., 2015). Cost savings, time savings, and convenience are a motivation factor as extrinsic rewards, while social value is that as intrinsic reward. Cost and time savings are important motivations regarding the reason why individuals use sharing economy services (Bock et al., 2005; Hamari et al., 2015). Therefore, two following hypotheses are postulated:

<Hypothesis 1> There is a positive association between cost savings and intentions to use the car sharing.

<Hypothesis 2> There is a positive association between time savings and intentions to use the car sharing.

Joo (2007) argues that convenience is a customer value in e-business. There are two different types of consumers such as cost-oriented and convenience-oriented (Morganosky, 1986). Thus, convenience is also an important motivation factor for using sharing economy services.

<Hypothesis 3> There is a positive relationship between convenience and intentions to use the car sharing.

Recently, many studies regarding creating shared value (CSV) stress on social value as a source of firms' competitiveness beyond corporate social responsibility (CSR)

in the areas of business management (Porter & Kramer, 2011; Joo et al., 2016; Hahn & Kim, 2016; Majid & Yaqun, 2016). Sustainability as a social value is a determinant of attitude formation toward collaborative consumption (Hamari et al., 2015). Cohen and Munoz (2016) suggested 18 activities of sharing economy in terms of private and public interest. Car sharing allows users to do sustainable activities by reducing their needs to purchase cars (Cohen & Munoz, 2016). Every car sharing results in the effect of removing 13 cars from city traffic or deterring the purchase of a new one (Cohen & Munoz, 2016; Martin et al., 2010). Hence, creating social value such as environment protection, contribution to energy savings, reduction of traffic jam, and efficient usage of parking spots in downtown is a predictor of the intention to use sharing economy service continuously:

<Hypothesis 4> There is a positive association between social value and intentions to use the car sharing.

3. Methodology and Analysis

<Table 3> shows operationalization of each construct with questionnaire items. Each questionnaire item used to measure the five constructs in <Table 3> was assessed employing a five-point Likert scale.

<Table 3> Operationalization and measures

Constructs	Definition	Measures	Sources
Cost Savings	The degree of saving cost through the car sharing	- I can save purchasing cost of the car - I can save transportation cost	Bock et al. (2005), Hamari et al. (2015)
Time savings	The degree of saving time through the car sharing	- I can save waiting time for riding car - I can efficiently use leisure time	Bock et al. (2005), Hamari et al. (2015)
Convenience	The degree of being convenient by the car sharing	- I can use car sharing anytime - I can use car sharing anywhere	Constructed by authors
Social Value	The degree of creating social and environmental value through car sharing	- Car sharing can contribute to reduction of environmental pollution - Car sharing can contribute to energy savings - Car sharing can contribute to reduction of traffic jam - Car sharing can contribute to efficient usage of parking spots in downtown	Constructed by authors
Intention to use	The degree of being willing to continuously use the car sharing	- I want to use the car sharing continuously - I intent to continuously use the car sharing - I will continuously use the car sharing - I will recommend the car sharing to others	Bhattacharjee, A. (2001), Hamari et al. (2015)

292 valid samples were collected from Socar users in South Korea. <Table 4> shows demographics including respondents' gender and age. The ratio of male respondents is 77.7 percent. An age range of 20 to 30 years is 84.9 percent.

<Table 4> Demographics of respondents

Category		Frequency	Percentage
Gender	Male	227	77.7
	Female	65	22.3
Age	< 20 years	7	2.4
	20	248	84.9
	30	31	10.6
	40	6	2.1

Time savings and convenience have higher average values than other independent variables shown in <Table 5>.

<Table 5> Cost savings, Time savings, Social value, and intentions to use continuously car sharing service

Dimension (variable)	Mean (standard deviation)	Number of items
Cost savings	3.61 (0.807)	2
Time savings	4.14 (0.563)	2
Convenience	3.95 (0.730)	2
Social value	3.85 (0.667)	4
Intentions to use car sharing service	4.08 (0.574)	4

* 1 indicates strongly disagree 3 indicates neutral 5 indicates strongly agree. All items were assessed on five-point Likert scale.

To test hypotheses, a multiple regression analysis of the SPSS version 21 was used. <Table 6> shows the results of regression analysis. <Hypothesis 1> and <Hypothesis 4> were not supported. <Hypothesis 2> and <Hypothesis 3> were supported at $p < 0.01$.

<Table 6> Result of regression analysis

Independent variables	Standardized coefficient	t-value (significance level)	Hypothesis result	Tolerance (VIF)
Cost savings	0.028	0.496 (0.620)	Rejected	0.914 (1.094)
Time savings	0.186	3.319 (0.001)	Supported	0.984 (1.016)
Convenience	0.247	4.404 (0.000)	Supported	0.962 (1.040)
Social value	0.039	0.696 (0.487)	Rejected	0.916 (1.091)

4. Discussion and Conclusions

4.1. Summary

There are so many kinds of sharing economy. The motives of accepting the sharing economy depend on its type, where cost savings in some kinds of sharing economy may be user's motives. For example, consumers using Airbnb sharing spaces like hotel can consider the cost savings as their motives. The present study dealt with a B2C type of car sharing economy. The motives of car sharing resulted from convenience and time savings. The present study offers the evidence that convenience is a critical factor of motivation participating in sharing economy. The importance of social value in sharing economy will be changed in the near future depending on the development of post-consumption and sustainable consumption.

4.2. Discussion

Hamari et al. (2015) demonstrated economic benefits, enjoyment, and sustainability as determinants of behavioral intention in collaborative consumption, in which data were collected from users of Sharetribe which helps eliminate excessive waste. They overlooked the importance of convenience as participative motivation in sharing economy.

Both economic value and social value can be important motives for consumers as well as producers. There exists a contradictory issue on whether sustainability as a kind of social value can have an influence on attitude or intention to use collaborative consumption (Hamari et al., 2015; Yang & Ahn, 2016). Hamari et al. argues that sustainability positively influences users' attitude toward collaborative consumption, whereas, Yang and Ahn (2016)'s study regarding Airbnb service did not find a significant relationship between sustainability and users' attitude. The present study did not provide the evidence that social value had an influence on intentions to use the car sharing significantly. Consumers' behavior continuously changes and they will increasingly recognize social value in the process of purchasing behavior although the present study had no evidence on a significant role of the social value on the intentions to use the car sharing. Our result is different from that of Hamari et al. (2015) in terms of social value. Social value like sustainability does not directly impact on the intention to use although it can influence user's attitude (Hamari et al., 2015).

Eckhardt and Bardhi (2015) argue that it is appropriate to use access economy rather than a sharing economy. Airbnb and Uber known as popular firms in sharing economy are typical examples of intermediaries mutualizing excess capacities in products or services on an online platform. According to Eckhardt and Bardhi (2015), companies in the access economy focus on providing convenient access ways and economic benefits for their customers rather than fostering social relationships with their customers or between different customers in communities. Consumer's motivation in the access economy results from convenience and economic benefits rather than social value in community. Eckhardt and Bardhi (2015) demonstrated an evidence of Zipcar as follows:

"Zipcar tried to foster a brand community by sending out chatty newsletters and facilitating meet-ups, but these were not received well. Consumers are not looking for social value out of rental exchanges with strangers."

4.3. Implications and Limitation

The result of study stresses that participative motives of sharing economy, in particular car sharing are convenience and time savings. Thus, managers of offering service in sharing economy need to plan to create value such as convenience and time savings rather than cost savings and

social value. At an initial stage of doing research on sharing economy, the present study sheds light on a significance of the type of sharing economy in selecting its motivation factors from the perspective of academicians.

Although a new finding implies that convenience is an important factor influencing car sharing service, the present study has a limitation of generality that samples are mostly collected from an age range of 20 to 30 years.

References

- B'enabou, R., & Tirole, J. (2003). Intrinsic and extrinsic motivation. *Review of Economic Studies*, 70, 489-52.
- Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, 67, 1595-1600.
- Benkler, Y. (2004). Sharing nicely: On shareable goods and the emergence of sharing as a modality of economic production. *Yale Law Journal*, 114, 273-358.
- Benkler, Y. (2006). *The wealth of networks: How social production transforms markets and freedom*. New Haven, CT: Yale University Press.
- Bert, J., Collie, B., Gerrits, M., & Xu, G. (2016). What's ahead for car sharing? The new mobility and its impact on vehicle sales. *The Boston Consult Group*. Retrieved December 30, 2016, from <http://www.bcg.de/documents/file206078.pdf>.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351-370.
- Bock, G. W., Zmud, R. W., Kim, Y. G., & Lee, J. N. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 29(1), 87-111.
- Botsman, R., & Rogers, R. (2010). Beyond Zipcar: Collaborative consumption. *Harvard Business Review*, 88(10), 30.
- Choi, H., & Park, J. (2014). Study on the local factors affecting availability of car-sharing in Seoul. *Journal of the Korean Society for Railway*, 17(5), 381-389.
- Cohen, B., & Munoz, P. (2016). Sharing cities and sustainable consumption and production: towards an integrated framework. *Journal of Cleaner Production*, 134, 87-97. doi:10.1016/j.jclepro.2015.07.133.
- Eckhardt, G. M., & Bardhi, F. (2015). The sharing economy isn't about sharing at all. *Harvard Business Review*. Retrieved December 30, 2016, from <https://hbr.org/2015/01/the-sharing-economy-isnt-about-sharing-at-all>
- Hahn, Y., & Kim, D. (2016). Corporate social responsibility: A comparison analysis. *East Asian Journal of Business Management*, 6(4), 13-17.
- Hamari, J., Sjöklint, M., & Ukkonen, A. (2015). The sharing economy: Why people participate in collaborative consumption. *Journal of the Association for Information Science and Technology*, 67(9), 2047-2059.
- Hardin, G. (1968). The tragedy of the commons. *American Association for the Advancement of Science*, 162 (3859), 1243-1248.
- Joo, J. (2007). An empirical study on the relationship between customer value and repurchase intention in Korean Internet shopping malls. *Journal of Computer Information Systems*, 48(1), 53-62.
- Joo, J., Eom, T., & Shin, M. (2016). Executive practices for corporate sustainability: A business ecosystems perspective. *International Journal of Business Research*, 16(1), 133-146.
- Kang, J., Hwang, K., & Park, S. (2016). Finding factors that influence carsharing usage: Case study in Seoul. *Sustainability*, 8(8), 709; doi:10.3390/su8080709.
- Kim, S., Lee, K., & Choi, K. (2014). Preferences factors analysis for car-sharing. *Journal of the Korean Society of Civil Engineers*, 34(4), 1241-1249.
- Lessig, L. (2008). *Remix: Making art and commerce thrive in the hybrid economy*. New York: Penguin Press.
- Majid, S., & Yaqun, Y. (2016). From an Entrepreneur to a Sustainopreneur: Extracting Facts about Sustainopreneurship. *East Asian Journal of Business Management*, 6(2), 23-25.
- Martin, E., Shaheen, S. A., & Lidicker, J. (2010). Impact of carsharing on household vehicle holdings: Results from North American shared-use vehicle survey. *Transportation Research Record: Journal of the Transportation Research Board*, 2143, 150-158. doi:10.3141/2143-19.
- Morganosky, M. A. (1986). Cost-versus convenience-oriented consumers: Demographic, lifestyle, and value perspectives. *Psychology & Marketing*, 3(1), 35-46. doi:10.1002/mar.4220030104.
- Porter, M., & Kramer, M. R. (2011). Creating Shared Value. *Harvard Business Review*, 89(1/2), 62-77.
- Rifkin, J. (2014). *The zero marginal cost society*. Palgrave: MacMillan.

- Yang, H., Cho, H., & Lee, W. (2015). Multi-dimensional emotional intelligence effects on intrinsic/extrinsic motivation and job satisfaction: Analysis using laborer perceived organizational support. *East Asian Journal of Business Management*, 5(4), 13-18.
- Yang, S., & Ahn, S. (2016). Impact of motivation in the sharing economy and perceived security in attitude and loyalty toward Airbnb, *Advanced Science and Technology Letters*, 129, 180-184. doi.org/10.14257/astl.2016.129.36.