Consumer Experience as Suppliers on Value Co-Creation Behavior

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Abstract
Service providers face deteriorating working environments because of consumers' high expectations for services. Consumers should participate in value co-creation, and support service providers to relieve service providers from overburden. In home delivery services, carrier overburden is often caused by the receivers' behavior, such as requests for re-delivery. However, the consumer experience of suppliers—the sender experience—may also affect the value co-creation behavior of receivers. The purpose of this study is to clarify the impact of supplier experience on participation in value co-creation as a recipient of home delivery services. Multiple group structural equation modeling was used to analyze 30,000 consumers' responses to an online questionnaire. Our findings demonstrate that the quality of customer citizenship behavior as a dimension of value co-creation behavior changed because of the supplier experience. The overburden of service providers will be lessened as consumers increase their supplier experience. Although they may want to help service provider, consumers without supplier experience cannot support service providers effectively. This study identified this "recipient myopia" from justification of the hypothesis model.

Keywords
Value Co-Creation; Consumer Behavior; Consumer Participation; Service Experience; Service Context

1 INTRODUCTION
Service marketing studies have argued that service providers should aim to surpass consumer expectations. However, consumer expectations rise when consumers experience high-quality services (Parasuraman, Berry, and Zeithaml 1991). This leads to the need for service quality that sometimes exceeds the providers' capacity. Subsequently, the consumers will blame the service providers, even though the providers used their full capacity for service propositions. This negative loop results in overburdening the service providers.

To reduce this overburden, in addition to improving the efficiency of service provision, service providers need support from consumers. Consumer behavior in services is classified into essential behavior and additional behavior. The essential behavior is called customer participation behavior, and additional behavior is called customer citizenship behavior (Yi and Gong 2013). Consumer's helping behavior that is not required in service processes is categorized as citizenship behavior. In general, consumers at least perform a minimum participant behavior to receive benefits. However, each consumer is different in how they perform citizenship behaviors. Furthermore, helping behavior that is not related to essential behavior sometimes causes a service failure, and increases the burden of service providers (Heidenreich et al. 2015). These service failures occur because consumers have not matured into the services or misunderstand them. Although organizational citizenship behavior can enhance the work engagement and job performance of employees (Babcock-Roberson and Strickland 2010; Chiang and Hsieh 2012), citizenship behavior of consumers does not necessarily promote their participant behavior to reduce the burden of service providers. Therefore, it is important for service research to identify how customer citizenship behavior affects customer participation behavior from a perspective of service maturity.

Due to the increasing demands for electronic commerce (EC), the working environment of the home delivery service industry has deteriorated due to excessive services offered. In urban areas, consumers receive delivery items in less than 24 hours. The home delivery service industry supports today's standards for a fulfilling life despite consumers being unaware of this. In Japan, for example, items are delivered to the homes of consumers. Moreover, consumers can demand free re-delivery. Many consumers are not even at home at the designated time, and request free re-delivery again. It is normal for consumers to expect this convenience, and they do not understand that these services are exceptional. In 2016, 40.19 million items were shipped in Japan. This demonstrates a nearly 40% increase over the past ten years (Ministry of Land, Infrastructure, Transport and Tourism 2016). Although this industry functions as a necessity in our daily lives in the present day, labor supply has not matched this rise in demand, and subsequently, the home delivery services industry has the worst labor shortages in Japan (Ministry of Health, Labour and Welfare 2018).
Previous studies on home delivery services have focused on improving the efficiency of service provision (Van Duin et al. 2016; Xiao et al. 2017). However, the services are not only completed by the carrier’s (service provider’s) processes; they always involve interaction with consumers, who are the senders (suppliers) and receivers (recipients) of items. Therefore, consumers must participate in value co-creation proactively to sustain the system by reducing the burden of service providers. Primitively, senders and receivers should be the main actors in the system. The role of carriers is only meant to connect senders and receivers by undertaking package transfer (Fig. 1). However, carriers undertake most of the tasks and provide additional services to consumers in Japan. It is essential for consumers to be conscious as actors in the system, and contribute to the reduction of the burden on carriers.

Home delivery services are characterized by a unique point that allows the consumers to participate in the services as both senders and receivers of delivery items. In this system, receivers are recipients and senders are suppliers of the services. The service experiences of both roles are influential. The consumers’ sender experience influences their behavior as receivers in other contexts. Consumers can mature into services easily when they have sufficient sender experience. While the overburdening of carriers is often caused due to the misbehavior of receivers, such as absence at the designated time for free re-delivery, the sender experience of the consumer in other contexts also influences misbehaviors. Therefore, this study aims to clarify the impact of the supplier experience on their participation in value co-creation as the recipients of home delivery services. Our findings contribute to the research on consumer participation by clarifying the influence of the consumers’ supplier experience on their participation behavior as recipients in other contexts.

2 THEORETICAL BACKGROUND

2.1 Home delivery services

With today’s increasing popularity of online shopping, home delivery services are drawing considerable attention worldwide. Past studies have concentrated on improving service provision. Ranieri et al. (2018) argued that the participation of all stakeholders in service provision is vital for achieving innovation that reduces service providers’ costs. Collaboration among service providers is effective in a developing economy where the transportation infrastructure is limited (Muñoz-Villamizar, Montoya-Torres, and Vega-Mejía 2015).

A simulation in Helsinki suggested that the costs for service providers could be reduced by nearly 60% by allowing delivery at unattended homes using a delivery box (Punakivi, Yrjölä, and Holmström 2001). On the other hand, the rate of the utilization of parcel lockers in Japan is only 0.7% (Cabinet Office, Government of Japan 2017). Xiao et al. (2017) argued that consumers’ demographics, such as population distribution, should be included in the analysis for reducing the overburden of service providers. Although these studies have noted the importance of transforming consumer behavior towards receiving items, consumers have been overlooked during these analyses. To reduce service providers’ overburden, consumer participation in value co-creation should be encouraged.

2.2 Value co-creation

Pine and Gilmore (1999) claim that providers should sell a great experience to obtain a competitive advantage. Consumer experience is not determined solely by the providers’ value proposition but is also greatly affected by consumer behavior in services. Therefore, consumers have a greater influence on the market as companies emphasize the selling experience. Thus, the concept of value co-creation, which assumes that value is co-created in the market, has become widely accepted (Prahalad and Ramaswamy 2004). According to Service-Dominant Logic (S-D Logic), all economic exchanges are service, and service is represented by the concept of value co-creation—a resource integration process among actors (Vargo, Maglio, and Akaka 2008; Vargo and Lusch 2004). In value co-creation, consumers need to utilize all the knowledge and skills they can access in order to improve their experience and gain value (Payne, Storbacka, and Frow 2008). Therefore, consumers themselves are responsible for value acquisition, and service providers are only value facilitators in value co-creation (Grönroos 2011). In addition, actors learn from repetitive value co-creation processes, which transform their attitudes within the service system (Edvardsson, Tronvoll, and Gruber 2011). Consequently, consumers are not static, as considered in traditional marketing, but dynamic in value co-creation.

Yi and Gong (2013) developed a scale for consumers’ value co-creation behavior. Their scale consists of two dimensions: customer participation behavior and customer citizenship behavior. Customer participation behavior is necessary for the realization of services. On the other hand, customer citizenship behavior is not essential for the realization of services but increases additional value. Encouraging these value co-creation behaviors by transforming consumer perception about resource integration leads to the alleviation of the overburden on service providers.

2.3 Consumer participation

Consumer participation increases consumer loyalty and service productivity (Lovelock and Young 1979). Consumer participation also benefits the consumers themselves. For example, consumers enhance their satisfaction with service recovery when they participate in the recovery process (Dong, Evans, and Zou 2008). S-D Logic is a framework that assumes value co-creation. That is, consumers always participate in interaction during
services and endeavor to integrate their resources for benefits (Lusch and Vargo 2006). However, there are many services, such as home delivery services in which consumers rely solely on service providers, and only consume resources. Therefore, it is necessary to adapt a theoretical framework for encouraging consumer participation.

Numerous studies have indicated that the capability and socialization of consumers are two main factors for consumer transformation. Dong et al. (2015) clarified the positive effects of the perceived ability of consumers on participation in value co-creation. Dellarde, Gilly, and Graham (2004) indicated that consumer ability promotes consumer motivation for value co-creation. Hibbert, Winklhofer, and Temerak (2012) argued that consumers require skills and knowledge to integrate resources effectively. Guo et al. (2013) identified that socialized consumers promote participation in co-production processes. Gremler and Gwinner (2000) revealed that rapport between consumers and employees has a positive effect on consumer loyalty. Furthermore, positive word-of-mouth increases when consumers’ trust in a specific employee increases (Gremler, Gwinner, and Brown 2001). However, previous studies only considered each factor solely for analyzing consumers.

This study applies the actor transformation model (Ho and Hara 2019; Ho and Shirahata 2017), which elucidates the process of promoting consumer participation from the perspective of capability and socialization. According to this model, consumers are transformed from recipients who only consume resources into generic actors (Vargo and Lusch 2016) who proactively participate in resource integration. Recipients gain confidence by enhancing self-efficacy and promoting resource integration for other actors by increasing social interest. Self-efficacy corresponds with capability, and social interest describes the socialization of consumers. This study identifies the influence of self-efficacy and social interest on the relationship between customer participation and citizenship behavior, with regard to the sender experience of home delivery services.

### 2.4 Proposed hypotheses

First, this study aims to clarify how customer citizenship behavior affects customer participation behavior from the perspective of supplier experience. Several studies have found that citizenship behavior has a positive impact on output (Chiang and Hsieh 2012; Podsakoff, Ahearne, and Mackenzie 1997). Additionally, the positive impact of citizenship behavior is fostered by an individual’s skills for a task (Rapp, Bachrach, and Rapp 2013). Therefore, receivers’ citizenship behavior promotes their participation behavior as they master services by enhancing sender experience (Hypothesis 1: H1).

Next, this study aims to identify how the actor transformation factors—self-efficacy and social interest—affect the value co-creation behavior. Self-efficacy is people’s cognition about their capabilities to accomplish effective behaviors (Bandura 1977). People promote essential behavior to achieve a goal through self-efficacy (Ryan and Deci 2000). Therefore, self-efficacy promotes customer participation behavior, regardless of the sender experience (Hypothesis 2: H2). However, high self-efficacy can lead to overconfidence (Rodriguez et al. 2014). People who are overconfident can be arrogant toward service providers. Arrogance is fostered when people’s cognitive ability is low (Johnson et al. 2010). Therefore, self-efficacy reduces receivers’ citizenship behavior when the consumers do not have much sender experience and have not matured into the services (Hypothesis 3: H3). Social interest refers to the feeling of acceptance of and increasing interest in others (Adler 1964). Citizenship behavior is cooperative behavior. Therefore, social interest promotes receivers’ citizenship behavior, regardless of their sender experience (Hypothesis 4: H4). Self-efficacy promotes resource integration through social interest as consumers are matured into services and transformed into generic actors (Ho and Hara 2019). Therefore, self-efficacy promotes receivers’ participation behavior by increasing social actors, as consumers increase their sender experience (Hypothesis 5: H5). These five hypotheses are summarized in Figure 2.

H1: Receivers’ citizenship behavior promotes their participation behavior as a high sender experience.

H2: Self-efficacy promotes receivers’ participation behavior regardless of sender experience.

H3: Self-efficacy reduces receivers’ citizenship behavior as low sender experience.

H4: Social interest promotes receivers’ citizenship behavior regardless of sender experience.

H5: Self-efficacy promotes receivers’ participation behavior through social interest as a high sender experience.

$$\text{Actor Transformation Factor} \rightarrow \text{Value Co-Creation Behavior}$$

![Figure 2: The hypothesis model.](image-url)

### 3 METHODOLOGY

#### 3.1 Subjects

This study investigated the hypotheses using a questionnaire survey. Data was collected from an online survey in Japan that involved 30,000 consumers aged over 15, who used home delivery services to receive items at least once a month. The received items were not limited to purchased products from EC shops but included all kinds of items such as packages from family members or friends. The average age of the respondents was 47.9 years. Of the total number of respondents, 49.9% were male, 49.7% were female, and 0.4% were others. The number of requests for re-delivery in the past year was 10,531 (35.1%) for "almost none," 11,925 (39.8%) for "about 20–30%," 6,545 (21.8%) for "about 50–80%," and 999 (3.3%) for "almost all." This
proportion of re-delivery corresponds to a government survey (Cabinet Office, Government of Japan 2017). A total of 21,180 (70.6%) respondents had a sender experience at least once in the past year, and 7,845 (26.2%) of those respondents had sender experiences averaging once or more in a month. Sender experience includes business and personal use of home delivery services.

3.2 Measurements

For measuring value co-creation behavior, this study used the scale proposed by Yi and Gong (2013). Value co-creation behavior has two dimensions. Customer participation behavior consists of the four factors of information seeking, information sharing, responsible behavior, and personal interaction. Customer citizenship behavior consists of feedback, advocacy, helping, and tolerance. This study extracted 12 questions from the 29 questions used in the previous research. The sentences in the questionnaire were adapted to match the context of the received items.

For measuring self-efficacy, the general self-efficacy scale developed by Chen, Gully, and Eden (2001) was used. This scale can measure the subjects’ beliefs regarding taking targeted action in diverse contexts. This study extracted four of the eight questions from the previous research, which could be easily answered in Japanese by subjects.

For measuring social interest, this study used the social interest scale developed by Kosaka (2011), which contained 24 questions regarding the following four factors, feeling of belonging to society, trust in society, feeling of contribution, and self-acceptance. This study extracted three questions from each factor. A five-point Likert scale was used for all of the questions.

3.3 Data analysis

This study used multiple-group structural equation modeling (SEM) to verify the hypothesis model from the perspective of sender experience. SEM is a confirmatory method for assessing theoretical models (Anderson and Gerbing, 1988). We divided the respondents into three populations according to sender experience. Group (i) comprised 8,820 respondents with no sender experience; group (ii) comprised 13,335 respondents with low sender experience; and group (iii) comprised 7,845 respondents with high sender experience (at least once a month). Then, we compared the hypothesis model and used self-efficacy and social interest for the model that investigates the impact of self-efficacy or social interest solely on value co-creation behaviors. This study also conducted a paired comparison between each group with the z-test to verify the differences between the impacts.

4 RESULTS

Model verification was repeated to exclude items showing multicollinearity. Finally, the items used for model testing are illustrated in Table 1. All Cronbach’s alpha (α) of latent variables are over 0.7 (Nunnally 1978). Furthermore, the average variance extracted (AVE) is over 0.5 (Hair et al. 2010), or it is over 0.4 and the composite reliability (CR) is over 0.6 (Fornell and Larcker 1981). Therefore, all latent variables of the model demonstrated acceptable reliability.

The results of the SEM are illustrated in Table 2. The goodness of fit index (GFI) and adjusted goodness of fit index (AGFI) are over 0.9, and the root mean square error of approximation (RMSEA) is under 0.5 (Hair et al. 2010). Therefore, the model fit indices of the model are good.

First, the positive impact of customer citizenship behavior on customer participation behavior increases as sender experience increases. The paired comparison by z-test demonstrated that this difference was significant (p < 0.0001). Consequently, hypothesis 1 was supported.

Next, self-efficacy demonstrated a positive impact on customer participation behavior. The difference between the positive impact among the three groups was not significant, according to the z-test (p > 0.05). Therefore, hypothesis 2 was supported. Self-efficacy demonstrated a negative impact on customer citizenship behavior, which increased as sender experience was low. However, the increase in the negative impact was not significant (p > 0.05). Therefore, hypothesis 3 was partially supported. Social interest demonstrated a positive impact on customer citizenship behavior. In addition, the difference between the positive impacts among the groups was not significant, according to the z-test (p > 0.05). Therefore, hypothesis 4 was supported. Self-efficacy demonstrated a positive impact on social interest, and social interest demonstrated a positive impact on customer participation behavior. However, the difference between the scores of the positive

### Table 1: List of questionnaire items used for SEM.

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>Observable Variables</th>
<th>Means</th>
<th>SD</th>
<th>α</th>
<th>AVE</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Efficacy</strong></td>
<td>1. When facing difficult tasks, I am certain that I will accomplish them.</td>
<td>3.29</td>
<td>0.954</td>
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<tr>
<td></td>
<td>2. I will be able to achieve most of the goals that I have set for myself.</td>
<td>3.16</td>
<td>0.902</td>
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<tr>
<td></td>
<td>3. Compared to other people, I can do most tasks very well.</td>
<td>3.01</td>
<td>0.867</td>
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<tr>
<td></td>
<td>4. Even when things are tough, I can perform quite well.</td>
<td>3.00</td>
<td>0.969</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Interest</strong></td>
<td>1. I am active participate in activities with the people around me. (Feeling of belonging to society)</td>
<td>2.65</td>
<td>1.055</td>
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<tr>
<td></td>
<td>2. I will never doubt people for no reason. (Trust in society)</td>
<td>3.04</td>
<td>0.962</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>3. In general, I believe others. (Trust in society)</td>
<td>3.08</td>
<td>0.952</td>
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<tr>
<td></td>
<td>4. I can voluntarily interact with the people around me. (Feelings of contribution)</td>
<td>3.08</td>
<td>0.908</td>
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<tr>
<td></td>
<td>5. I can show sympathy for other people. (Feelings of contribution)</td>
<td>3.20</td>
<td>0.904</td>
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<tr>
<td></td>
<td>6. I am able to help people voluntarily. (Feelings of contribution)</td>
<td>2.99</td>
<td>0.884</td>
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<td></td>
</tr>
<tr>
<td><strong>Customer Participation Behavior</strong></td>
<td>1. I search for information about home delivery services, such as how to receive a package. (Information seeking)</td>
<td>3.18</td>
<td>1.060</td>
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<tr>
<td></td>
<td>2. I provide necessary information, such as the designated time, so that employees can perform their duties. (Information sharing)</td>
<td>3.67</td>
<td>0.940</td>
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<td></td>
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<tr>
<td></td>
<td>3. I am polite to the employees. (Personal interaction)</td>
<td>3.93</td>
<td>0.927</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customer Citizenship Behavior</strong></td>
<td>1. When I receive good service from employees, I comment about it. (Feedback)</td>
<td>2.61</td>
<td>1.108</td>
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<tr>
<td></td>
<td>2. I say positive things about a particular home delivery service company and their employees to others. (Advocacy)</td>
<td>2.79</td>
<td>1.015</td>
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<td></td>
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<tr>
<td></td>
<td>3. I help other consumers if they seem to have problems. (Helping)</td>
<td>2.58</td>
<td>1.022</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: SD = Standard Deviation, AVE = Average Variance Extracted, CR = Composite Reliability
impact among the three groups was not significant as per the z-test. Therefore, hypothesis 5 was partially supported.

5 DISCUSSION

Regarding theoretical implications, this study indicates the influences of supplier experience and actor transformation factors on the value co-creation behaviors of consumers. First, we identified how consumer experience as suppliers promotes the positive impact of citizenship behavior on the participation behavior of the recipients. The results of the SEM indicated that supplier experience reinforces the influence of citizenship behavior on participation behavior, and consumers’ helping behavior without supplier experience can impede essential behavior.

This study identified how actor transformation factors affect the positive impact of citizenship behavior on participation behavior. We confirmed that self-efficacy has a positive impact on social interest, and self-efficacy promotes participation behavior while social interest promotes citizenship behavior. These results correspond to the actor transformation model (Ho and Hara 2019). The authors also confirmed that the model only used self-efficacy and the model only used social interest. Although all of models showed high model fit indices, we discuss the results following the hypothesis model because it is more reflect real situations. In home delivery services, consumers are considered to have both self-efficacy and social interest. Compared to a model that only uses self-efficacy, the impact of self-efficacy on citizenship behavior in the hypothesis model was determined to be negative. This pseudo result leads to the misunderstanding that self-efficacy has a direct positive impact on citizenship behavior. However, the hypothesis model indicates that the positive impact of self-efficacy on citizenship behavior is promoted by social interest. Self-efficacy can promote citizenship behavior when it is connected to social interest. Compared to a model that only used social interest, the positive impact of social interest on participation behavior decreased in the hypothesis model. This pseudo result causes the misunderstanding that social interest has a positive impact on participation behavior. However, we can interpret that the positive impact is very weak from the results of the hypothesis model. Consequently, participation behavior requires self-efficacy, and citizenship behavior requires social interest. In other words, both actor transformation factors are necessary to encourage consumer participation in value co-creation.

For consumers without supplier experience, the effect of social interest is stronger than the effect of citizen behavior on participation behavior. However, it is reversed when consumers have high supplier experience. This finding implies that the quality of citizenship behavior is transformed by supplier experience. Consumers can select correct helping behaviors that contribute to participation behavior as the supplier experience increases. Consumers understand which citizenship behavior helps to decrease the overburden on service providers by being matured into services.

Furthermore, the negative effect of self-efficacy on citizenship behavior is mitigated when consumers have supplier experience. The sense of perceived competence, that people can work better than others, makes consumers lose their modesty and become arrogant (Johnson et al. 2010). Consumers regain their modesty when they have supplier experience and gain metacognition (Flavell 1979) of the service system. Consequently, when consumers have supplier experience, they contribute to relieving the overburden of service providers by encouraging participation behavior through citizenship behavior. Thus, they can acquire meta-knowledge about the service system by experiencing both the recipients’ and suppliers’ roles.

If consumers do not have enough supplier experience, their citizenship behavior is not effective in supporting providers despite high social interest, which represents the altruistic mind of consumers. This phenomenon is called “recipient myopia.” Recipients who do not master services only consume resources in services, regardless of their altruistic tendencies. They cannot determine effective citizenship behavior on participation in value co-creation.

For consumers without supplier experience, the effect of social interest is stronger than the effect of citizenship behavior on participation behavior. However, it is reversed when consumers have high supplier experience. This finding implies that the quality of citizenship behavior is transformed by supplier experience. Consumers can select correct helping behaviors that contribute to participation behavior as the supplier experience increases. Consumers understand which citizenship behavior helps to decrease the overburden on service providers by being matured into services.
In terms of practical implications, support is necessary for consumers to increase their knowledge of the service system in order to relieve the overburden of service providers. Furthermore, service providers should be careful when promoting the self-efficacy of consumers, even though self-efficacy improves their service experience (Van Beuningen, De Ruyter, and Wetzels 2011). Our findings indicate that consumers without supplier experience may not participate in value co-creation, even though they may demonstrate high self-efficacy. Service providers should not wrest the opportunities for knowledge acquisition regarding the service system from consumers; however, Artificial Intelligence (AI) has replaced some service tasks (Huang and Rust 2018). Subsequently, information provision for consumers will become increasingly important for value co-creation with AI in the near future.

6 CONCLUSION
Consumer expectation increases as service providers continue to provide services that exceed expectations. Eventually, service providers become exhausted when those expectations exceed their supply capability. This study focused on promoting consumer participation in value co-creation to relieve the overburden of service providers in home delivery services. Five hypotheses were framed and analyzed using structural equation modeling to explain the influence of consumer experience as suppliers on the value co-creation behavior of recipients. Data from 30,000 home delivery service consumers in Japan were collected through an online survey. The findings demonstrated that self-efficacy promotes customer participation behavior as a dimension of value co-creation behavior, and social interest promotes customer citizenship behavior as another dimension of value co-creation behavior, regardless of previous sender experience.

Furthermore, increasing sender experience reduces the negative influence of self-efficacy on customer citizenship behavior, and reinforces the positive influence of customer citizenship behavior on customer participation behavior. This study implies that sender experience changes the sender experience changes the expectations exceed their supply capability. This study focused on promoting consumer participation in value co-creation to relieve the overburden of service providers in home delivery services. Five hypotheses were framed and analyzed using structural equation modeling to explain the influence of consumer experience as suppliers on the value co-creation behavior of recipients. Data from 30,000 home delivery service consumers in Japan were collected through an online survey. The findings demonstrated that self-efficacy promotes customer participation behavior as a dimension of value co-creation behavior, and social interest promotes customer citizenship behavior as another dimension of value co-creation behavior, regardless of previous sender experience.

It is supposed that services such as Uber Eats, which have a spare time will enhance according to the diffusion of the sharing economy. Therefore, consumer education will be increasingly important for service marketers. In particular, providers should consider the qualitative change of customer citizenship behavior in value co-creation so that they can relieve their overburden. In future research, we will identify how consumer experience affects consumers’ knowledge acquisition regarding a service system.

7 ACKNOWLEDGEMENTS
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8 REFERENCES
APPENDIX

Appendix 1: Correlation of questionnaire items used for SEM.

<table>
<thead>
<tr>
<th></th>
<th>SE 2</th>
<th>SE 3</th>
<th>SE 4</th>
<th>SI 1</th>
<th>SI 2</th>
<th>SI 3</th>
<th>SI 4</th>
<th>SI 5</th>
<th>SI 6</th>
<th>CPB 1</th>
<th>CPB 2</th>
<th>CPB 3</th>
<th>CCB 1</th>
<th>CCB 2</th>
<th>CCB 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 1</td>
<td>0.525</td>
<td>0.477</td>
<td>0.551</td>
<td>0.284</td>
<td>0.271</td>
<td>0.318</td>
<td>0.458</td>
<td>0.407</td>
<td>0.424</td>
<td>0.120</td>
<td>0.221</td>
<td>0.256</td>
<td>0.164</td>
<td>0.117</td>
<td>0.157</td>
</tr>
<tr>
<td>SE 2</td>
<td>0.436</td>
<td>0.524</td>
<td>0.289</td>
<td>0.272</td>
<td>0.360</td>
<td>0.402</td>
<td>0.379</td>
<td>0.419</td>
<td>0.113</td>
<td>0.185</td>
<td>0.204</td>
<td>0.182</td>
<td>0.136</td>
<td>0.172</td>
<td></td>
</tr>
<tr>
<td>SE 3</td>
<td>0.470</td>
<td>0.251</td>
<td>0.146</td>
<td>0.220</td>
<td>0.353</td>
<td>0.299</td>
<td>0.363</td>
<td>0.082</td>
<td>0.097</td>
<td>0.109</td>
<td>0.144</td>
<td>0.126</td>
<td>0.148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SE 4</td>
<td>0.377</td>
<td>0.271</td>
<td>0.355</td>
<td>0.449</td>
<td>0.418</td>
<td>0.485</td>
<td>0.108</td>
<td>0.134</td>
<td>0.146</td>
<td>0.220</td>
<td>0.150</td>
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<tr>
<td>SI 1</td>
<td>0.278</td>
<td>0.375</td>
<td>0.447</td>
<td>0.342</td>
<td>0.452</td>
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<td>0.017</td>
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Notes: The p-value for all scores are under 0.0001; n = 30,000