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Assessing the Heterogeneity of Consumers' Preferences for Corporate Social Responsibility Using the Best–Worst Scaling Approach

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Abstract: The promotion of corporate social responsibility (CSR) is important for achieving sustainability. The interest of stakeholders is one factor promoting CSR activities. Consumers are one of the major stakeholders. The aim of this study is to quantify Japanese consumers' preference for 13 CSR activities using the best–worst scaling (BWS) approach. We conducted an online survey in February 2015 and 633 individuals responded. Counting analysis and econometric analysis were used to analyze the BWS data. The results of the counting and MaxDiff analyses show that "Product safety and immediate recall in the case of defects" was identified as the most highly evaluated activity that makes respondents most strongly think that they want to buy a product from a company implementing the CSR activity. The results of the random parameter logit model and latent class model show preference heterogeneity. Some classes prioritize activities that do not generate a private benefit for them, such as environmental issues abroad and the working conditions of employees.

Keywords: best–worst scaling; CSR; preference; questionnaire survey; heterogeneity; consumer

1. Introduction

The promotion of corporate social responsibility (CSR) activities is important for achieving sustainability. The interest of stakeholders is a factor promoting CSR activities. Consumers are one of the major stakeholders and have an impact on decisions made by companies. The 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) adopted in 2012 comprises a program promoting sustainable consumption (UNEP, [1]). In addition, ISO26000:2010 [2] refers to consumers' important role in sustainability.

Many researchers have paid attention to the possibility of consumption considering environmental and the other social issues and examined consumers' willingness to pay (WTP). The literature review and meta-analysis by Tully and Winer [3] revealed that the mean percentage of WTP premium for social responsibility programs (related to humans, environment, and animals) is 16.8%, and 60% of the respondents are willing to pay a positive premium. In addition, they revealed that socially responsible issues related to humans, such as labor practices, have greater WTP compared to issues related to the environment. Examples of studies conducted after Tully and Winer's study [3] are mentioned below.

Liu et al. [4] conducted a choice experiment for coffee products and showed that the most important certification attribute is traceability, followed by organic, graded, environmentally friendly, and fair-trade certification. Miller et al. [5] conducted a choice experiment for fruits and vegetables and investigated preferences for attributes such as health, environment, animal welfare/biodiversity, food safety, social responsibility, and quality. They showed that consumers prefer better standards of these attributes. Cai and Aguilar [6] used a choice experiment for wood products and showed that respondents tend to choose products from a company with a higher CSR rating.

Studies estimating WTP are useful for companies since the information can potentially be used for price setting. On the other hand, WTP is specific to the product. In order to estimate WTP, we have to set a concrete scenario and analyze the purchasing behavior of a specific product. Therefore, for example, it would be difficult to apply the WTP for coffee to other products. It would be difficult to apply the WTP for a home appliance to other products. However, in reality, there are a huge number of products and a variety of companies, compared to which the number of studies estimating WTP is limited. Therefore, in addition to the accumulation of studies estimating WTP, information on consumers' preferences that can be used by a wide variety of companies regardless of products is useful, too. Our contribution is to provide information that can be used by many companies producing many different kinds of products.

For this reason, the objective of this study is to examine consumers' preferences for CSR. For this objective, we use the best–worst scaling (BWS) developed by Finn and Louviere [7]. BWS can deal with a larger number of CSR activities compared to choice experiments. The desirable number of attributes used in the choice experiment is restricted due to limited human cognitive capacity (the number of attributes a human being can deal with at once is 7 ± 2 [8]). In BWS, we can limit the items that respondents simultaneously deal with to a small number, while estimating the priorities of a larger number of items as a whole. Since there are a wide variety of CSR issues, using BWS is appropriate for our purpose.

Studies that have used this approach to examine CSR issues are limited. To the best of our knowledge, the previous study that used BWS to examine consumers' preference for CSR was that of Auger et al. [9], who examined what kinds of social and environmental issues consumers prefer. They showed that consumers tend to highly prioritize human rights and no child labor among the 16 CSR issues although there are differences among countries. They compared six countries and showed that although there are variations among the countries with similarities, individual variations dominate the observable demographics. However, Japan was not one of the six countries. Therefore, we tried to increase the knowledge of consumers' preferences on CSR in Japan.

In the economics field, research on the theory of the private provision of public goods has been conducted (an example of public goods is environmental protection). Consumers are assumed to choose their behavior to maximize utility. Theories related to explaining consumers' socially responsible behavior include that by Andreoni [10] where the utility function is assumed to consist of private goods, total supply of public goods, and private contribution to public goods. In this model, in addition to the public good itself, doing good things is considered to increase utility. Brekke et al. [11] assumes that the individual's self-image as a socially or morally responsible person is included in the utility function. Their theories can form the base of our study on consumers' CSR preferences.

Research Question 1: What are Japanese consumers' relative preferences for CSR?

Understanding diversity among preferences is important especially in CSR studies. In setting the United Nations' Sustainable Development Goals (SDGs), it was pledged that "no one will be left behind" (UN, [12]). SDGs and CSR are closely related (International Organization for Standardization, [13]). Therefore, we tried to capture diversity among preferences using a random parameter logit model and latent class model in addition to a conditional logit model in econometric analysis. Estimating the conditional logit model implies capturing average preference. The preferences of the majority tend to be reflected in the average. If we only estimate the conditional logit model, it would be difficult to capture the minority preference. This is against the pledge. Therefore, we estimate the random parameter logit model and latent class model to see whether there is preference heterogeneity and, if so, how the heterogeneity is manifested. Auger et al. [9] found preference heterogeneity. Therefore, there is a possibility that Japanese consumers also have preference heterogeneity.

Research Question 2: Is there preference heterogeneity among Japanese consumers' preferences? If so, how is the preference heterogeneity manifested?

The results show that the item "Product safety and immediate recall in the case of defects" was identified as the most highly evaluated activity that makes a respondent most strongly think that

he/she wants to buy a product from a company implementing the CSR activity. The results of the random parameter logit model and latent class model show preference heterogeneity. Some classes prioritize activities that do not generate a private benefit for them, such as environmental issues abroad and the working conditions of employees.

2. Materials and Methods

BWS was developed by Finn and Louviere [7]. According to Flynn [14], BWS is classified into three cases: the object case (Case 1), profile case (Case 2), and multiprofile case (Case 3). In this study, we use the object case. When we refer to BWS, it implies the object case BWS. This method was applied to CSR-related issues in the following studies. Costanigro et al. [15] used BWS to investigate consumers' concern for CSR in milk production and elicit their willingness to pay for labels. Their results revealed that animal welfare and sustainable agricultural practices are the most important concerns (they asked BWS questions and WTP questions separately and combined the responses in the analysis). Burke et al. [16] used BWS to assess the reasons for and against ethical consumption. They found that impact, health, personal relevance, and quality are the major reasons consumers positively react to ethical products. On the contrary, indifference, expense, confusion, and skepticism are the major reasons consumers negatively react to ethical products. Lusk and Briggeman [17] examined consumers' preferences for food. They revealed that safety, nutrition, taste, and price are the most important factors, while fairness, tradition, and origin are the least important for consumers, although preference heterogeneity does exist. In addition, Auger et al. [9] studied consumers' preferences with regard to CSR, as explained in Section 1.

The BWS has some advantages compared to choice experiments. First, the burden on the respondents is smaller than that on respondents of choice experiments. Respondents are not required to consider the trade-offs among attributes when they choose the most preferable alternative; they are required to simply choose the most and least preferable alternatives. Second, it is difficult to conduct choice experiments with many attributes at once, as we see in Section 1, due to limited human cognitive capacity [8]. In BWS, we can limit the items respondents deal with simultaneously to a small number, while estimating the priorities of a larger number of items as a whole.

BWS questions have two main advantages over rating and ranking questions (for the details, see Tsuge et al. [18].). The first is that BWS questions require respondents to choose two extremes (i.e., the best and worst alternatives in a choice set) rather than rate or rank alternatives. Therefore, it is easier for respondents to answer questions, and the burden on the respondents is small. Lee et al. [19] revealed that BWS questions require a shorter time to answer than do rating scale questions. The second is that BWS questions do not allow respondents to provide the same ratings for different alternatives. Because rating scales allow respondents to equally rate all the alternatives, they often suffer from indifference among evaluations of alternatives (Cohen, [20]).

In this study, a respondent is required to choose one CSR activity that makes him/her most strongly think that he/she wants to buy a product from a company implementing the CSR activity. In addition, the respondent is required to choose one CSR activity that makes him/her least strongly think that he/she wants to buy a product from a company implementing the CSR activity. Table 1 shows an example of a choice set. Each choice set has different combinations of four CSR activities. Each respondent works on 13 choice sets, in which 13 CSR activities are presented. These 13 activities are chosen based on ISO 26000:2010 [2] and the Japan Federation of Bar Associations [21]. Balanced incomplete block designs were used to construct the choice sets, as shown in Table 2 [20]. In our study, each number corresponds to each CSR activity, which appeared four times.

Table 1. Example of a choice set.

Please choose the CSR activity from the following four CSR activities that makes you most strongly think that you want to buy a product from a company implementing the CSR activity and the CSR activity that makes you least strongly think that you want to buy a product from a company implementing the CSR activity:		
	CSR activity that makes you most strongly think that you want to buy a product from a company implementing the CSR activity	CSR activity that makes you least strongly think that you want to buy a product from a company implementing the CSR activity
Promoting a barrier-free friendly environment for people with disabilities or injuries in both product design and work environment	□	□
Product safety and immediate recall in the case of defects	□	□
Striving to reduce waste in the manufacturing process and product design	□	□
Providing information in line with facts about products and services and never providing false or misleading information	□	□

Table 2. Construction of the choice sets.

Choice Set No.	**Alternative No.**			
1	1	2	4	10
2	2	3	5	11
3	3	4	6	12
4	4	5	7	13
5	5	6	8	1
6	6	7	9	2
7	7	8	10	3
8	8	9	11	4
9	9	10	12	5
10	10	11	13	6
11	11	12	1	7
12	12	13	2	8
13	13	1	3	9

We analyzed the data obtained from the BWS questions using counting and econometric analyses. The econometric analysis included the conditional logit model, random parameter logit model, and latent class model. They were used in line with MaxDiff model. The counting analysis was used to check the robustness. In the counting analysis, we counted the number of times each CSR activity was chosen as the most or least preferable (hereafter, the CSR activity that makes the respondent most (least) strongly think that he/she wants to buy a product from a company implementing the CSR activity is referred to as "the most (least) preferable"). In previous studies [20], these were referred to total-best (ΣB) and total-worst (ΣW), respectively. The B–W score of alternative i is calculated as Equation (1) following Cohen [20]. The B–W score is a close approximation of the maximum likelihood estimates from the estimation of the conditional logit model [22]:

$$B - W\ score_i = \sum B_i - \sum W_i, \quad (1)$$

The conditional logit model in line with the MaxDiff model was developed by Finn and Louviere [7]. Respondents are assumed to examine all the possible pairs of CSR activities and choose the pair of the most and least preferable activities that maximize the difference of utility between the two activities. In Equation (2), β_i and β_j represent the utility of the two alternatives i and j, respectively, and $Difference_{ij}$ represents the difference of both. ε_{ij} is an error term [17]:

$$Difference_{ij} = \beta_i - \beta_j + \varepsilon_{ij}, \quad (2)$$

The probability P_{ij} that the respondent chooses alternatives i and j as the most and least preferable activities from J alternatives included in a choice set is equal to the probability that the difference in utility between the two alternatives is the largest among all the utility differences of the possible pairs in a choice set. Assuming that ε_{ij} is distributed independently and identically with a type I extreme value distribution, the conditional logit model can be derived (The conditional logit model was developed by McFadden [23]). P_{ij} is described as Equation (3) [17]:

$$P_{ij} = \frac{\exp(\beta_i - \beta_j)}{\sum_{k=1}^{J}\sum_{l=1}^{J}\exp(\beta_k - \beta_l) - J}, \tag{3}$$

The above MaxDiff model estimates the average preference. However, the evaluation of CSR activities may vary among individuals. Therefore, we estimate the random parameter logit model. The means and standard deviations are estimated under the assumption that the parameters are continuously distributed [24].

The probability P_{nij}^{R} that the respondent chooses alternatives i and j as the most and least preferable activities, respectively, is described as follows:

$$P_{nij}^{R} = \int L_{nij}(\beta_n) f(\beta_n|\mu, \sigma) d\beta_n \,, \tag{4}$$

where

$$L_{nij}(\beta_n) = \frac{exp\left(\beta_{ni} - \beta_{nj}\right)}{\sum_{k=1}^{J}\sum_{l=1}^{J} exp(\beta_{nk} - \beta_{nl}) - J} \,, \tag{5}$$

μ and σ denote the mean and standard deviation, respectively. The subscript n attached to β implies that the β is different for each individual. These are estimated by simulation with 100 replications of a Halton draw based on the assumption that they are normally distributed [24]. Our data are treated as panel data since each respondent answered 13 choice tasks.

Furthermore, we estimated a latent class model [25]. In this model, respondents are assumed to be composed of multiple classes with different preferences. The probability that respondent n belonging to class s chooses alternative i as the most preferable and alternative j as the least preferable is as follows.

$$L_{nij}(\beta_s) = \frac{\exp\left(\beta_{si} - \beta_{sj}\right)}{\sum_{k=1}^{J}\sum_{l=1}^{J} exp(\beta_{sk} - \beta_{sl}) - J}, \tag{6}$$

Assuming that the probability that respondent n belongs to class s is π_{ns}, the probability that respondent n chooses alternative i as the most preferable and alternative j as the least preferable is described as follows.

$$P_{nij}^{L} = \sum_{s} \pi_{ns} L_{nij}(\beta_s), \quad \sum_{s} \pi_{ns} = 1, \tag{7}$$

where β_s is the specific utility for class s. π_{ns} are estimated assuming that all respondents have the same probability of belonging to the class ($\pi_{ns} = \pi_s, \forall n$).

3. Results

3.1. Data Collection

We collected data through an online survey conducted in February 2015. Responses were obtained from 633 individuals. The survey aimed to sample respondents whose age and gender were, as far as possible, representative of the population. Among these 633 respondents, 350 (55.3%) were men and 283 (44.7%) were women. In terms of age, 134 (21.2%) respondents were in their 20s, 163 (25.8%) were in their 30s, 104 (16.4%) were in their 40s, 132 (20.9%) were in their 50s, and 100 (15.8%) were in their 60s. On the other hand, among the population aged from 20 to 69 years, 50.1% were men and 49.9%

were women. Among the population aged from 20 to 69 years, 15.9%, 19.7%, 22.8%, 19.1%, and 22.5% were in their 20s, 30s, 40s, 50s, and 60s, respectively. (Statistics Bureau, Ministry of Internal Affairs and Communications, [26]).

3.2. Results of the Counting Analysis

Table 3 summarizes the results of the counting analysis. The total-best and total-worst show the frequency of the CSR activities chosen by respondents as the most and least preferable, respectively. The most frequently chosen CSR activity as the most preferable item and the CSR activity with the highest B–W score was "Product safety and immediate recall in the case of defects" followed by "Preventing pollution of water, air, and soil, preventing health damage to local people and preserving the local biodiversity, at the same level as in Japan, even when conducting business activities abroad". The most frequently chosen CSR activity as the least preferable item and the CSR activity with the lowest B–W score was "Creating jobs in developing countries" followed by "Never discriminating against employees who attempt collective bargaining through a labor union".

Table 3. Summary of the counting analysis.

CSR Activity	Total Best	Total Worst	B–W Score
Product safety and immediate recall in the case of defects	1188	297	891
Preventing pollution of water, air, and soil, preventing health damage to local people and preserving the local biodiversity, at the same level as in Japan, even when conducting business activities abroad	938	431	507
Providing information in line with facts about products and services and never providing false or misleading information	914	516	398
Personal information of consumers collected by the business is properly handled to protect the privacy of consumers	751	423	328
Considering the safety and hygiene of the workplace	630	440	190
Providing decent working conditions for employees by avoiding the excessively long working hours and increasing the rate of taking vacations. Respecting the employees' domestic responsibilities considering work/life balance.	712	536	176
Striving to reduce waste in the manufacturing process and product design	605	494	111
Striving to promote energy savings in the production process and product design	566	642	−76
Promoting a barrier-free friendly environment for people with disabilities or injuries in both product design and work environment	481	619	−138
Actively involved in wage increases for non-regular employment workers and converting them to regular employment workers	545	691	−146
Confirming that no child labor and forced labor is used in the business or by business partners	383	766	−383
Never discriminating against employees who attempt collective bargaining through a labor union	251	1054	−803
Creating jobs in developing countries	265	1320	−1055

3.3. Results of the Econometric Analysis

NLOGIT6 was used in the econometric analysis. Table 4 shows the estimation results of the conditional logit model and random parameter logit model. We included a dummy variable for each CSR activity. To estimate the relative evaluation of each CSR activity compared with "Creating jobs in developing countries", the dummy variable of the activity was not included, and the coefficient of the

activity was set to zero. All the mean estimates were positively significant. The estimated parameter of "Product safety and immediate recall in the case of defects" was the largest. These results indicate that this activity was identified as the most preferable, concurring with the results of the counting analysis.

Table 4. Estimation results of the conditional logit model and random parameter logit model.

Parameter	Conditional Logit Model	Random Parameter Logit Model (Mean)	Random Parameter Logit Model (S.D.)
Product safety and immediate recall in the case of defects	1.5667 *** (0.0430)	1.9620 *** (0.0661)	1.2959 *** (0.0693)
Preventing pollution of water, air, and soil, preventing health damage to local people and preserving the local biodiversity, at the same level as in Japan, even when conducting business activities abroad	1.2532 *** (0.0420)	1.4965 *** (0.0555)	0.9134 *** (0.0575)
Providing information in line with facts about products and services and never providing false or misleading information	1.1727 *** (0.0420)	1.4212 *** (0.0616)	1.1611 *** (0.0640)
Personal information of consumers collected by the business is properly handled to protect the privacy of consumers	1.1151 *** (0.0418)	1.3324 *** (0.0520)	0.7282 *** (0.0599)
Considering the safety and hygiene of the workplace	1.0046 *** (0.0416)	1.1809 *** (0.0521)	0.7288 *** (0.0519)
Providing decent working conditions for employees by avoiding the excessively long working hours and increasing the rate of taking vacations. Respecting the employees' domestic responsibilities considering work/life balance.	0.9939 *** (0.0415)	1.1839 *** (0.0554)	0.9108 *** (0.0596)
Striving to reduce waste in the manufacturing process and product design	0.9389 *** (0.0414)	1.0712 *** (0.0465)	0.3738 *** (0.0711)
Striving to promote energy savings in the production process and product design	0.7980 *** (0.0413)	0.8944 *** (0.0480)	0.5176 *** (0.0592)
Promoting a barrier-free friendly environment for people with disabilities or injuries in both product design and work environment	0.7539 *** (0.0413)	0.8626 *** (0.0462)	0.3587 *** (0.0575)
Actively involved in wage increases for non-regular employment workers and converting them to regular employment workers	0.7606 *** (0.0416)	0.8543 *** (0.0499)	0.6219 *** (0.0617)
Confirming that no child labor and forced labor is used in the business or by business partners	0.5543 *** (0.0411)	0.6354 *** (0.0487)	0.5855 *** (0.0605)
Never discriminating against employees who attempt collective bargaining through a labor union	0.2182 *** (0.0416)	0.1904 *** (0.0489)	0.4835 *** (0.0710)
Creating jobs in developing countries	0 (-)	0 (-)	0 (-)
Number of observations	8229	8229	
Log likelihood	−19,172.8	−18,358.0	
R^2	0.0565	0.0966	

Note 1: *** $p < 0.01$; Note 2: Numbers in parentheses are standard errors.

All the standard deviations of the random parameter logit models were significant. This means that the evaluation of each CSR activity varied among individuals. Therefore, we estimated latent class models to examine this heterogeneity in more detail. We estimated Classes 2, 3, and 4 models, where the Class 4 model was chosen based on the AIC (36,193.4) and BIC (36,125.8). Table 5 shows the results of these four class models. In Classes 1 and 4, "Product safety and immediate recall in the case of defects" was the most preferable. On the contrary, Class 2 evaluated "Preventing pollution of water, air, and soil, preventing health damage to local people and preserving the local biodiversity, at the same level as in Japan, even when conducting business activities abroad" as the most preferable, while Class 3 evaluated "Providing decent working conditions for employees by avoiding excessively long working hours and increasing the rate of taking vacations. Respecting the employees' domestic responsibilities considering work/life balance" as the most preferable. The shares of Classes 1, 2, 3, and 4 were 0.29, 0.40, 0.19, and 0.12, respectively.

Table 5. Estimation results of the latent class models.

Parameter	Class 1	Class 2	Class 3	Class 4
Product safety and immediate recall in the case of defects	3.8393 *** (0.1372)	0.1947 ** (0.0776)	1.9164 *** (0.1879)	4.5488 *** (0.2659)
Preventing pollution of water, air, and soil, preventing health damage to local people and preserving the local biodiversity, at the same level as in Japan, even when conducting business activities abroad	2.7499 *** (0.1296)	0.3108 *** (0.0791)	2.3912 *** (0.1546)	1.9931 *** (0.2691)
Providing information in line with facts about products and services and never providing false or misleading information	2.9389 *** (0.1364)	−0.0521 (0.0723)	1.5085 *** (0.1900)	4.0980 *** (0.2647)
Personal information of consumers collected by the business is properly handled to protect the privacy of consumers	2.5979 *** (0.1266)	0.0876 (0.0741)	1.4942 *** (0.1581)	3.4948 *** (0.2705)
Considering the safety and hygiene of the workplace	2.1200 *** (0.1286)	0.1384 * (0.0787)	1.5439 *** (0.1703)	3.0505 *** (0.2916)
Providing decent working conditions for employees by avoiding the excessively long working hours and increasing the rate of taking vacations. Respecting the employees' domestic responsibilities considering work/life balance.	1.1880 *** (0.1124)	−0.0059 (0.0842)	3.1822 *** (0.1922)	2.7513 *** (0.3471)
Striving to reduce waste in the manufacturing process and product design	2.3398 *** (0.1238)	0.2307 *** (0.0774)	1.1830 *** (0.1492)	1.9838 *** (0.2434)
Striving to promote energy savings in the production process and product design	2.2005 *** (0.1248)	0.1054 (0.0763)	0.9966 *** (0.1534)	1.8878 *** (0.2595)
Promoting a barrier-free friendly environment for people with disabilities or injuries in both product design and work environment	1.2278 *** (0.1119)	0.1615 ** (0.0738)	1.7677 *** (0.1453)	1.9229 *** (0.2850)
Actively involved in wage increases for non-regular employment workers and converting them to regular employment workers	0.8678 *** (0.1172)	−0.0140 (0.0758)	2.1367 *** (0.1767)	2.8911 *** (0.3499)
Confirming that no child labor and forced labor is used in the business or by business partners	0.6484 *** (0.1028)	0.0743 (0.0723)	1.2762 *** (0.1359)	2.0656 *** (0.2682)
Never discriminating against employees who attempt collective bargaining through a labor union	0.1262 (0.1153)	−0.3814 ** (0.0707)	0.9535 *** (0.1566)	2.4292 *** (0.2838)
Creating jobs in developing countries	0 (-)	0 (-)	0 (-)	0 (-)
Number of observations	8229			
Log likelihood	−18,044.7			
R^2	0.1120			
Class probability	0.2897 *** (0.0216)	0.3958 *** (0.0240)	0.1908 *** (0.0204)	0.1238 *** (0.0165)

Note 1: *** $p < 0.01$. ** $p < 0.05$. * $p < 0.1$.; Note 2: Numbers in parentheses are standard errors.

4. Discussion

This study examined Japanese consumers' preferences for CSR activities using the BWS approach. The results of the counting analysis and conditional logit model showed that "Product safety and immediate recall in the case of defects" was identified as the most highly evaluated item. Hence, this CSR activity makes respondents most strongly think that they want to buy a product from a company implementing the CSR activity. This activity is evaluated highly since it is directly related to consumers' safety. These results are consistent with the findings by Lusk and Briggeman [17]. In Auger et al. [9], no child labor is the second most highly evaluated activity following human rights in four out of six countries. However, according to Tables 3 and 4, the item including child labor was third from the last. In Japan, many people are not familiar with the concept of child labor. Thus, it might be difficult for them to imagine the situations of child and forced labor and employment conditions in developing countries.

According to Table 4, the results of the random parameter logit model showed variations among preferences. These results are consistent with those by Auger et al. [9] in the sense that they also show the existence of variation among preferences. The results of the latent class model in Table 5 reveals that "Product safety and immediate recall in the case of defects" was the most highly evaluated item in Class 1 (approximately 29% of the respondents) and Class 4 (approximately 12% of the respondents).

In addition, in Class 1 and 4, "Providing information in line with facts about products and services and never providing false or misleading information" was the second most highly evaluated activity.

However, "Preventing pollution of water, air, and soil, preventing health damage to local people and preserving the local biodiversity, at the same level as in Japan, even when conducting business activities abroad" and "Providing decent working conditions for employees by avoiding the excessively long working hours and increasing the rate of taking vacations. Respecting the employees' domestic responsibilities considering work/life balance" were the most highly evaluated CSR activities in Classes 2 (approximately 40% of the respondents) and Class 3 (approximately 19% of the respondents), respectively. These results showed that consumers in these classes are more interested in issues that do not necessarily generate a private benefit for them than in issues that do so. In the former case, local people and the local environment around the companies receive the benefit. In the latter case, employees receive the benefit.

The implications of this study are as follows. First, "Product safety and immediate recall in case of defects" is the highest priority for consumers on average. If companies find a defect in products, they should immediately respond to it. One of the worst cases related to recall in Japan was revealed in 2000. Mitsubishi Motors had concealed recalls [27]. Concealment should be avoided. This is also related to the following implication.

Second, information provision is the second priority in Classes 1 and 4. In Japan, there have been many corporate scandals that have resulted from providing false information. As a recent example, Suzuki Motor Corporation falsified measured values in fuel consumption and exhaust gas. In addition, the company deviated from the proper examination environment (The Nikkei newspaper, [28]; Suzuki Motor Corporation Press Release, [29]). Aeon Pet in Japan conducting a pet custody service claimed in the advertisement that they would take pets for walks outside although some shops did not take the pets for walks outside. It is a violation of the Act against Unjustifiable Premiums and Misleading Representations (The Nikkei newspaper, [30]). A restaurant chain operated by AP company in Japan used phrases in their menus that made consumers believe that all the dishes were made of locally raised chickens although broilers chicken was also used in some dishes. This is also a violation of the Act against Unjustifiable Premiums and Misleading Representations (The Nikkei newspaper, [31]). Companies should provide consumers with correct information. In Japan, the purpose of the Act against Unjustifiable Premiums and Misleading Representations is "to protect the interests of general consumers by providing for limitations and the prohibition of acts that are likely to interfere with general consumers' voluntary and rational choice-making in order to prevent the inducement of customers by means of unjustifiable premiums and misleading representations in connection with the transaction of goods and services. (Article 1)" (Japanese Law Translation Database System, [32]). Therefore, companies should at least ensure that they do not violate the law. In addition, we should consider information disclosure issues further. This is related to the next implication.

The third implication is related to further information disclosure. In this study, a respondent was required to choose one CSR activity that makes him/her most (or least) strongly think that he/she wants to buy a product from a company implementing the CSR activity. However, in reality, information for some items is not adequately disclosed. Class 3 placed the highest priorities on "Providing decent working conditions for employees by avoiding the excessively long working hours and increasing the rate of taking vacations. Respecting the employees' domestic responsibilities considering work/life balance." In Japan, many employees cannot avoid working long hours. This has led to many problems including deaths by overwork. According to the Ministry of Health, Labour and Welfare [33], the number of approved workers' compensation claims due to cerebrovascular disease and ischemic cardiac disease caused by overwork was 253 in 2017. Among them, 92 workers died. The number of approved workers' compensation claims due to mental disorders caused by intense psychological burdens at work was 506 in 2017. Among them, the number of suicides, including attempted suicides, was 98. Long working hours have been a serious issue in Japan. The law of Promotion of Preventive Measures for Death by Overwork came into effect in 2014. Our study shows

respondents in Class 3 placed the highest priority on this issue. However, information about working hours is not available for consumers. This means that even if consumers want to consider this issue, they cannot reflect their priority in terms of their purchasing behavior. Therefore, the government and companies should consider measures to disclose information.

Fourth, environmental issues are of interest to people. In Class 2, "Preventing pollution of water, air, and soil, preventing health damage to local people and preserving the local biodiversity, at the same level as in Japan, even when conducting business activities abroad" and "Striving to reduce waste in the manufacturing process and product design" are ranked first and second. These results mean that the reduction of pollution and waste emissions is highly evaluated. Japan experienced serious pollution caused by companies during the period of high economic growth. From this experience, Japanese consumers are considered to be sensitive to companies' pollution emissions. It is worth noting that reducing pollution, even overseas, is highly evaluated. Companies should recognize that pollution reduction even overseas is highly preferred by Japanese consumers.

Fifth, in this study, avoiding child labor was given a low priority. However, previous studies, such as that by Auger et al. [9], show a high priority given to no child labor. Therefore, companies—especially multinationals—should seriously consider avoiding child labor. Although this study examined the preferences of Japanese consumers, companies have to bear in mind that when the actual priorities of its CSR activities to be implemented are decided, the preferences of stakeholders other than Japanese consumers, such as employees, nongovernmental organizations, citizens, investors, and suppliers, should also be considered.

5. Conclusions

We used BWS to quantify Japanese consumers' preference for 13 CSR issues. On average, "Product safety and immediate recall in the case of defects" was identified as the most highly evaluated activity that makes a respondent most strongly think that he/she wants to buy a product from a company implementing the CSR activity. The results of the random parameter logit model and latent class model show preference heterogeneity. Some classes prioritize activities that do not generate a private benefit for them, such as environmental issues abroad and the working conditions of employees.

There are limitations in this study to be examined in future research. The limitations and future research include the following: First, understanding the preference of stakeholders other than consumers. As noted in the previous section, this study examined only the preference of Japanese consumers. Due to this limitation, companies cannot obtain information of preference of other stakeholders from this study. Therefore, studies employing surveys of other stakeholders could constitute important future research. Second, in this study, respondents were required to choose one CSR activity that made them most (or least) strongly think that they want to buy a product from a company implementing that CSR activity. This means that we used the degree of purchasing intention as the underlying subjective dimension. However, it is possible to set other dimensions, such as the degree of importance, not necessarily related to purchasing intention. Investigating the relations of different dimensions could be another topic of future research. Third, the CSR activities required by the stakeholders may change over time. Therefore, we should consider the items that should be included in the analysis and update them from time to time.

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