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Perceptions of Agriculture and Food Corporate Social Responsibility

Carissa J. Morgan^a, Nicole J. Olynk Widmar^b, Michael D. Wilcox^c,
and Candace C. Croney^d

^aDepartment of Agricultural Economics, Purdue University, West Lafayette, Indiana, USA; ^bDepartment of Agricultural Economics, Purdue University, West Lafayette, Indiana, USA; ^cPurdue Center for Regional Development, West Lafayette, IN, USA; ^dDepartment of Comparative Pathobiology and Department of Animal Sciences, Purdue University, West Lafayette, Indiana, USA

ABSTRACT

An online survey of 1,201 U.S. residents was conducted in April 2015 to better understand individuals' perceptions of prominent areas of corporate social responsibility (CSR) in the food supply chain. Demographic and household consumption information, including supermarket patronage, was collected. Each respondent completed best-worst tasks for CSR areas designed to elicit their relative importance of CSR areas. Overall, health and safety were perceived as the most important CSR area, and environment was prioritized second. Indicating gender as female and/or reporting age over 65 was positively correlated with the relative importance placed on health and safety, but negatively correlated with the size of preference share for nearly all other CSR areas investigated. Membership in the younger age categories was positively correlated with the size of the preference shares devoted to procurement, labor, fair trade, and biotechnology.

KEYWORDS

Best-worst scaling;
consumer perceptions;
corporate social
responsibility; supermarkets

Introduction

Modern day corporate social responsibility (CSR) includes activities beyond a business's traditional obligation to generate returns to invested resources. Kotler (1991), for one, took a corporate perspective, defining CSR as a way of doing business that mutually benefits society and the consumer. While a single, accepted definition of CSR does not currently exist, a widely referenced and accepted definition is "a concept whereby companies integrate social and environmental concerns in their business operations and in their interactions with stakeholders on a voluntary basis" (European Commission, 2001). Increasingly, social responsibility and profitability are believed to be related; one perspective claims to "tame the dragon, that is to turn a social problem into an economic opportunity and economic benefit, into productive capacity, into human competence, into well-paid jobs, and into wealth" (Drucker, 1984, p. 62). More recent studies claim that, in addition to corporate responsibilities that adhere to business ethics, CSR

includes dimensions of philanthropy, community, workplace diversity, safety, human rights, and environment (Carter & Jennings, 2004). Thus, CSR continues to evolve from a concept, to a conceptual framework that includes dimensions that are categorical and potentially measurable.

Consumer and activist groups have increased their activity focused on highlighting the importance of social and moral concerns related to issues like child labor, environment, animal welfare, and other social issues (Auger, Devinney, & Louviere, 2007). Concurrently, consumers are increasingly interested in CSR, with some bringing attention to the issues via boycotting and other campaigns (Öberseder et al., 2011). A result is that CSR concepts have developed into top priorities for many businesses (Hartmann, 2011). Swanson (1995) outlined motivations for businesses to incorporate CSR activities into their practices as either 1) to have a positive impact on the society, 2) as a means to achieve business objectives, or 3) to conform to stakeholder expectations. Jagger (2004) suggested that in order of priority, businesses must first address government regulations and demands of employees, then the concerns of consumers and the general public. Vlachos, Tsamakos, Vrechopoulos, and Avramidis (2009) found that consumer trust is positively affected by values-driven CSR while negatively, or not at all affected, by CSR activities adopted to pacify consumer demands or for strategy-driven purposes (Öberseder et al., 2011). Less understood is the effect that such actions have upon consumer preferences, especially in the food and agriculture sector.

CSR in food and agriculture

The modern food retail industry is prominent and visible to the public eye largely because it supports a basic requirement for human life (Maloni & Brown, 2006). Food retailers and supermarkets are often the first, and in some cases the only aspect of the food supply chain that consumers meet. Large food corporations face a complex challenge of addressing consumer demands for various practices while not always maintaining direct control over product suppliers and their production practices. Deselnicu, Cstanigro, and Thilmany (2012) illustrated that Walmart and Costco, for example, place downward pressure on their suppliers to adhere to their CSR standards in order to mitigate negative publicity. In addition, the American consumer is far enough removed from the food production and procurement process that CSR activities may go unnoticed, despite best efforts to promote and publicize them.

Maloni and Brown (2006) viewed CSR as the ethical parameter around business operations, in which an organization is held accountable by a variety of stakeholders (i.e., consumers, producers, government, special interest groups), who are likely to vary depending on the specific corporation or industry investigated. This research pivots on applications of CSR specific to the food and agriculture industries. Maloni and Brown (2006) found eight prominent

applications of CSR in the food supply chain, including: health and safety, environment, procurement, biotechnology, community, fair trade, labor, and animal welfare.

Health and safety in the food supply system is clearly a priority for U.S. consumers and unmet food safety standards can have real and potentially harmful implications for the food and agricultural industries. In a study of U.S. consumer perceptions of food values, Lusk and Briggeman (2009) found that food safety was ranked highest amongst 11 prominent food values in importance; food safety was significantly more important than origin, nutrition, taste, or price. Consumer trust in the safety of food products is essential for the economic vitality of food and agricultural businesses.

Devinney, Auger, Eckhardt, and Birtchnell (2006) claimed that environmental activism has been a forerunner in consumer activism since the 1960s. Even so, previous studies have found that products with environmental attributes may be perceived as less important than other socially focused products or activities. Environmental issues such as the use of recycled materials and packaging as investigated in Auger et al. (2007) were consistently rated “low” in importance. In Lusk and Briggeman’s (2009) study, the environmental impact of food production was also perceived by the average U.S. consumer to be amongst the “least important” in food values. In an effort to profile the socially responsible U.S. consumer, Roberts (1995) conducted a cluster analysis and found the “highly ecologically conscious” consumer represented 6% of the entire sample, proportionally the smallest cluster in the sample. Views on sourcing and procurement vary widely across industries and around the globe and are often related to other issues, such as worker safety or environmental concerns. Problematic issues of corporate ethics related to procurement are outlined in Maloni and Brown (2006), ranging from preferential treatment of suppliers to unfair behavior toward customers.

Biotechnology means the use of biological processes for human purposes, including genetically modified (GM) products (Blaine et al., 2002). Blaine et al. (2002) claimed nearly all agricultural products are GM products, whether genetic modification occurs by natural or facilitated means. However, consumer perception of biotechnology in food production may not be (and need not be) founded on complete knowledge of biotechnology. Research suggests that people’s perceptions of biotechnology are swayed by the degree to which they believe biotechnology effects other areas of CSR, including environment and food safety (Blaine et al., 2002; Hossain, Onyango, Adelaja, Shilling, & Hallman, 2004).

The importance of community as an area of CSR is expected to have differing levels of value depending on the specific location (community) in question. Studies find that long-term commitment to improving community welfare bodes well for company image and economic returns (Du, Bhattacharya, & Sen, 2010; Webb & Mohr, 1998). Community investments have been

highlighted by prominent food retailers in the U.S. in recent years. For example, Target pledged to give 5% of its revenues, a total amounting to \$150 million (of 2007 revenues), to community projects that promote education, access to the arts, and community safety (Du et al., 2010). In a similar fashion, Whole Foods advertises community giving as a part of their mission, supporting communities and local causes, and has committed 5% of its annual profits to community service projects (Du et al., 2010).

Maloni and Brown (2006) asserted that fair trade is a responsibility of food retailers to support prices that allow their suppliers to avoid poverty and sustain their businesses. De Pelsmacker, Driesen, and Rayp (2005) researched the relationship between consumers' ethical behaviors and their willingness to pay for fair trade coffee, finding "fair trade lovers," those participants prioritizing the fair trade label first in their coffee purchase, constituted only 11% of the sample and the only group willing to pay the premium for fair trade coffee (De Pelsmacker et al., 2005). Thus, while some consumers may demand fair trade attributes, one must pay careful attention to the size of the market willing to pay the premium for it.

Auger et al. (2007) found in their study on relative importance of prominent social and ethical issues that, regardless of an individual's country of nationality, labor and human rights are consistently chosen as "more important" than other social and ethical issues. Since the 1990s, international labor standards have been set to guide and limit the use of foreign and child labor (Maloni & Brown, 2006). U.S. farm worker rights often focus on issues of CSR within the agricultural supply chain, with increasing activity amongst consumer and labor rights groups such as the Fair Food Program advocating for increased farm worker wages, improved working conditions, and increased educational training (Fair Food, 2016).

In addition to concerns about labor and implications for human labor, consumers in the U.S. and other Western countries are becoming increasingly concerned with the general care and well-being of livestock animals in food production (Croney & Anthony, 2010). There are a number of factors potentially contributing to the increase in concern for animal welfare, but it is probable that the trends in moral consideration and inclusion of minority groups in Western nations are, to some degree, extending to animals (Croney & Botheras, 2010). Certainly, modern-day CSR, particularly in the food supply chain cannot ignore individual perceptions (or preferences for) animal welfare-friendly attributed food and agricultural products.

The objective of this study was to investigate U.S. residents' perceptions of CSR areas pertinent in the food supply system. The tradeoffs made by participants for CSR areas, in addition to correlations were estimated amongst respondent preferences for CSR and other demographics, including gender, age, income, U.S. region of residence, households with/without children, education level, dietary habits, and supermarket shopping practices. The overall aim of this

study was to view individual perceptions of CSR and evaluate them with respect to pertinent demographic factors.

Materials and methods

A national-scale survey was distributed online March 31st to April 4th of 2015 to collect U.S. residents' perceptions of the relative importance of the eight applications of CSR in food and agriculture outlined by Maloni and Brown (2006). The survey was hosted through Qualtrics at Purdue University and distributed by Lightspeed GMI via their large opt-in panel database. The sample in this study was targeted to be representative of the U.S. population according to the U.S. Census (2012) in terms of gender, age, income, and region of residence. Survey respondents were required to be 18 years or older to participate. In total 1,201 completed responses were obtained. In addition to demographic information, participants were asked questions about their education, ages of children in their household, and dietary preferences.

Best-worst scaling (BWS) is a methodology that forces participants to make tradeoffs amongst multiple attributes across several scenarios, where the result is the difference between their most preferred option and their least preferred option (Louviere, 1993). BWS originates in random utility theory, a well-tested theory of human decision-making (McFadden, 1974). All survey respondents ($n = 1,201$) completed a best-worst choice task in the survey (which consisted of eight choice tasks or individual questions) focused on the eight areas of CSR proposed by Maloni and Brown (2006). Each scenario (choice task) presented to respondents included seven of the eight areas of CSR, from which respondents were asked to choose which attribute they believed to be the "most" and the "least" important. Lusk and Briggeman (2009) used the terms "most" and "least" to examine food values, and Wolf and Tonsor (2013) investigated the "best" and "worst" of dairy farmer policy preferences. Erdem, Rigby, and Wossink (2012) used "most responsible" and "least responsible" to elicit from consumers and farmers their perceptions of responsibility in ensuring food safety. This analysis uses "most important" and "least important" to elicit consumer preferences for the given areas of CSR.

Participants may choose any one area of CSR up to seven times. Given that there are eight attributes (j), $J = 8$ in the experiment, the total possible combination choices was calculated as: $J(J-1) = 56$. Thus, 56 different possible choice combinations could have been selected. Participant selections of the "most" and "least" important CSR areas were used to determine the relative importance of CSR areas presented in this study. Theoretically, these two choices represent the maximum difference between two attributes on the underlying continuum of importance (Lusk & Briggeman, 2009). Following Lusk and Briggeman's (2009) study, λ_i is used to represent the location of importance for each attribute, j on

the continuum of importance, and the random error term is denoted by ε_{ij} . Thus, the true unobservable level of importance for respondents is represented:

$$I_{ij} = \lambda_i + \varepsilon_{ij} \quad (1)$$

The probability that a respondent in this study, a U.S. resident i , chooses j and k , respectively as the best and worst, or “most” and “least” important attributes of CSR, is the probability that the difference between I_{ij} and I_{ik} is larger than all other $J(J-1)-1$ possible differences from the choice combinations (Lusk & Briggeman, 2009), thus, represented the maximum difference between a respondent’s two chosen attributes. As outlined by Lusk and Briggeman (2009) the error term is assumed to be independently and identically distributed, therefore the probability of choosing a most-least important combination took on the multinomial logit (MNL) form:

$$\begin{aligned} & \text{Prob} (j \text{ is chosen most and } k \text{ is chosen least}) \\ &= \frac{e^{\lambda_j - \lambda_k}}{\sum_{l=1}^J \sum_{m=1}^J e^{\lambda_l - \lambda_m} - J} \end{aligned} \quad (2)$$

The MNL model assumes homogeneity amongst respondents’ preferences. However, U.S. residents’ perceptions of social responsibility were hypothesized to be heterogeneous, as heterogeneous preferences for various production processes and product attributes have been well documented in the literature. Therefore, the random parameter logit (RPL) model which assumes heterogeneous preferences for individuals was estimated. Adjustments from (2) for the RPL model include the unobservable level of importance for respondent i and attribute j in population λ_j , in which the mean is represented as $\bar{\lambda}_j$, the standard deviation σ_j , and the random term μ_i . Adjustments for the RPL model were then specified as:

$$\tilde{\lambda}_{ij} = \bar{\lambda}_j + \sigma_j \mu_i \quad (3)$$

The random term, within the RPL model, was normally distributed with mean zero and unit standard deviation, thus distributed the level of importance of CSR attribute j according to a normal distribution curve (Lusk & Briggeman, 2009). The probability that each CSR area is picked as most important across all eight areas was then calculated, and necessarily sums to 1. The probabilities, also termed “share of preference” by Lusk and Briggeman (2009), for each attribute j were calculated as:

$$\text{share}_j = \frac{e^{\tilde{\lambda}_j}}{\sum_{k=1}^J e^{\tilde{\lambda}_k}} \quad (4)$$

A share of preference for each of the eight prominent CSR areas was calculated. Individual-specific preference shares for all respondents were also calculated using individual-specific coefficients from the RPL model. Thus, relative

perceived importance (individual-specific preference shares) for each of the eight CSR areas was estimated for each respondent. Estimation of individual-specific preference shares equips the correlation analysis between the individual-specific mean preference shares for all eight areas of CSR, demographic factors, and dietary or shopping behaviors. The resulting outcomes were respondent's relative perceptions of CSR amongst supermarkets studied, relationships between respondent preferences and other pertinent demographic factors.

Results and discussion

Table 1 details demographics of the sample. Female participants represented 51% of the sample, while males were 49% of the sample. Participants aged 18 to 24 years comprised 13% of the sample, 25 to 44 years 35% of sample, 45 to 64 years 35% of sample, and those aged 65 years and older accounted for 17% of the sample. Household incomes were collected in seven categories, from which respondents could choose; for the purposes of this analysis, those categories were aggregated into low (less than \$25,000 to \$34,999), medium (\$35,000 to \$99,999), and high (\$100,000 to \$150,000 or higher) income categories. With

Table 1. Sample Demographics ($n = 1,201$, % of Respondents).

Variable description	Survey
Female	51
<i>Age</i>	
18 to 24 years	13
25 to 44 years	35
45 to 64 years	35
65 years and over	17
<i>Household income</i>	
Less than \$25,000	23
\$25,000–\$34,999	10
\$35,000–\$49,999	14
\$50,000–\$74,999	18
\$75,000–\$99,999	12
\$100,000–\$149,999	13
\$150,000 or more	10
<i>Region</i>	
Northeast	18
South	38
Midwest	22
West	22
<i>Education</i>	
Did not graduate from high school	2
Graduated from high school, did not attend college	19
Attended college, no degree earned	21
Attended college, associate or trade degree earned	13
Attended college, bachelor's (B.S. or B.A.) degree earned	28
Attended college, advanced (M.S., Ph.D., Law School) degree earned	16
<i>Other</i>	1
I or a member of my household is vegetarian	13
I or a member of my household is vegan	7
Children in the household	32

respect to U.S. region of residence, 38% were from the South, 22% from both the Midwest and the West, and 18% from the Northeast. Participants were also asked if there were children in their household; 32% of households included children. It was hypothesized that having children in the household might impact perceptions of CSR. Other studies have shown that households with more children typically report higher food expenditures (McKendree, Widmar, & Olynk Widmar, 2014), which is expected as additional food and perhaps higher priced foods intended for children would add to expenditures.

The sample obtained was more educated than the U.S. population, according to the 2014 Census. The majority of participants, 58%, received a higher education degree (highest level received was associates, trade, bachelors, masters, or PhD). The 2014 U.S. Census shows that 39% of the U.S. population received a higher education degree (U.S. Census, 2014). The over-education of the sample could be in-part due to the survey taking place online, potentially restricting accessibility to U.S. residents with ready Internet access, time available online, interest in voluntary participation, ability to read and comprehend the survey, and/or other reasons.

Dietary habits and food purchasing patterns were investigated in this analysis. In this study, 13% of respondents indicated that they or a member of their household was vegetarian. In order to study food purchases, seven prominent supermarkets¹ (Walmart, Costco, Kroger, Target, Trader Joe's, Whole Foods, and Amazon.com) were inquired about. Each respondent was prompted to choose one of five statements that best fit their connection to each supermarket, and those choices included: "I have NOT heard of this store," "I have heard of this store but do NOT shop here because there is not one in my area," "I have heard of this store but do NOT shop here because I choose not to," "I shop here occasionally," or "I shop here regularly." With respect to Walmart, 46% of respondents reported "I shop here regularly" and 33% indicated "I shop here occasionally." Thirty-four percent of respondents claimed they did not shop at Costco because there was not one in their area while 17% shopped there regularly. Similarly, the largest portion of respondents with respect to their connection to Kroger, 44% claimed not to shop there because there was not one in their area, and 19% of respondents indicated regularly shopping at Kroger. For both Trader Joe's and Whole Foods, 38% of respondents for both claimed that they did not shop at each respective supermarket because there was not one in their area. Ten percent of respondents claimed to regularly shop at Trader Joe's, and similarly, 11% of respondents claimed to regularly shop at Whole Foods. With respect to shopping at Target, 43% claimed to occasionally shop there and another 24% regularly shopped there. Interestingly, with respect to their connection to the only online retailer presented, Amazon.com, 41% of respondents claimed to shop there occasionally while 38% of respondents indicated regularly shopping on Amazon.com.

The RPL utility parameter estimates, and resulting mean preference shares for each of the eight areas of CSR are shown in Table 2.² The importance of a single CSR attribute (relative to the seven other CSR areas) can be determined from each CSR area's preference share. Health and safety held the largest mean preference share at nearly 48%. Lusk and Briggeman (2009) reported a similar finding; safety rated as the "most important" attribute across their 11 food values. Environment had the second largest mean preference share at nearly 16%; thus it ranked second in relative importance of the areas of CSR presented in this study. This finding differs from other studies in which environmental attributes were among the lowest preferred, whether of food values (Lusk & Briggeman, 2009) or as an area of CSR (Auger et al., 2007). Animal welfare and community were ranked together in terms of relative importance, at 10% each for their mean preference shares, similarly to labor with 9% mean preference share. In this study, those areas of CSR that ranked the lowest in terms of relative importance were fair trade (4%), biotechnology (3%), and procurement or input supply (1%).

The size of the individual-specific preference shares across each of the areas of CSR was of particular interest in this analysis, which focuses (necessarily) on tradeoffs among the CSR areas. Correlations amongst the individual-specific preference shares for each of the eight areas of CSR studied are presented in Table 3. Recall that health and safety had the largest mean preference share, indicating its relatively high importance. The size of the individual-specific preference share for health and safety was negatively correlated with the sizes of preference shares for all other areas of CSR. In short, a negative correlation suggests that as the size of one of the individually specific preference shares (for relative importance) increases, the size of the other individual-specific preference shares decreases, indicating a

Table 2. Output and Derived Preference Shares for CSR Areas.

Value	RPL econometric estimations		RPL mean shares of preferences
	Coefficient	Standard deviation	
Labor	2.0963*** (0.0420)	0.9372*** (0.0404)	0.0868
Animal welfare	2.1985*** (0.0497)	1.7226*** (0.0425)	0.0961
Health and safety	3.8062*** (0.0557)	2.0431*** (0.0495)	0.4798
Fair trade	1.3459*** (0.040)	1.1539*** (0.0399)	0.0410
Biotechnology	0.9122*** (0.0437)	1.6479*** (0.0411)	0.0266
Environment	2.7022*** (0.0527)	1.8312*** (0.0439)	0.1591
Community	2.2389*** (0.0476)	1.6852*** (0.0430)	0.1001
Procurement	0.00		0.0107

Statistical significance to the 1% level is indicated as ***.

Table 3. Correlations Amongst Perceived Importance in CSR Areas' Preference Shares ($n = 1,201$).

	Procurement	Labor	Animal welfare	Health and safety	Fair trade	Biotechnology	Environment	Community
Procurement	0.5197***							
Labor	0.0918***	0.0118						
Animal welfare	-0.4319***	-0.3679***	-0.4086***					
Health and safety	0.6039***	0.3692***	0.0603**	-0.3599***				
Fair trade	0.3476***	0.1750***	0.0172	-0.2680***	0.1773***			
Biotechnology	-0.0338	-0.0833***	-0.1402***	-0.5188***	-0.0431	-0.0556**		
Environment	0.1114***	0.0698**	-0.1013***	-0.3478***	0.0385	0.0031	-0.1692***	
Community								

Statistical significance to the 1% and 5% level are indicated as *** and **, respectively.

tradeoff. This means that if a respondent highly preferred one area of CSR, they had to sacrifice preference for other areas.

The size of the preference share for environment was negatively correlated with the sizes of preference shares for all other areas of CSR. The strongest relationship with the size of the preference share for environment is with the size of the preference share for health and safety (-0.5188); those respondents with larger preference shares for environment tended to have smaller preference shares for health and safety and vice versa. Given the necessary tradeoffs in this analysis between CSR areas, this tradeoff amongst the two largest CSR areas is not surprising.

The sizes of preference shares for animal welfare and community were both positively correlated with the sizes of the preference shares for procurement, labor, fair trade, and biotechnology. The sizes of the preference shares for animal welfare and community were negatively correlated with the sizes of the preference shares for health and safety, environment, and each other.

Relationships amongst demographics, behaviors, and CSR area preference shares

Among correlations analyzed between the CSR areas' individual-specific preference shares and demographic factors (Table 4), gender, age, and vegetarian/vegan dietary preferences were the most significant relationships. Reporting being female was correlated with the sizes of the preference shares for all CSR areas, except animal welfare and community. Specifically, being female was positively correlated with the size of the preference share for health and safety (0.1342). Being female was negative correlated with the relative importance placed on procurement, labor, fair trade, biotechnology, and environment. There was no observable significant relationship between being female and the sizes of preference shares for animal welfare or community.

There were observable significant relationships between age and perceived importance of most CSR areas. With respect to the importance (size of the preference share) placed on health and safety, it was positively correlated with membership in the older age categories (45 to 64 years, and 65 years and older) and negatively correlated with reported membership in the younger age categories (18 to 24 years and 25 to 44 years). Those participants in the older age categories placed greater importance on (gave larger preference share for) health and safety, whereas, being younger was positively correlated with the sizes of preference shares for procurement, labor, fair trade, and biotechnology. Membership in this youngest age category was positively correlated with the size of the preference share for procurement (0.1623).

There was a notable relationship between the size of preference share for procurement and those participant households indicating having children; having children in the household was positively correlated with the size of

Table 4. Correlations Amongst Sample Demographic Factors and Preference Shares for CSR Areas of Importance ($n = 1,201$).

	Procurement	Labor	Animal welfare	Health and safety	Fair trade	Biotechnology	Environment	Community
Female	-0.1236***	-0.0552*	0.0313	0.1342***	-0.1039***	-0.0896***	-0.1003***	-0.0455
Age								
18 – 24 years	0.1623***	0.0741***	0.0225	-0.0795***	0.0704**	0.1117***	-0.0164	0.0373
25 – 44 years	0.1257***	0.0529*	0.0532*	-0.0714***	0.0878***	0.0650**	-0.0404	0.0490
45 – 64 years	-0.1303***	-0.0630**	-0.0260	0.0463	-0.0809***	-0.0948***	0.0506*	-0.0272
65+ years	-0.1398***	-0.0536*	-0.0546*	0.1031***	-0.0719***	-0.0625**	0.0019	-0.0611**
Income								
Low	-0.0271	0.0528*	0.0489*	-0.0135	0.0141	-0.0359	0.0057	-0.0515*
Medium	0.0437	-0.0149	0.0084	-0.0232	0.0013	0.0252	-0.0236	0.0668**
High	-0.0214	-0.0422	-0.0656**	0.0431	-0.0177	0.0108	0.0217	-0.0211
Region of residence								
Northeast	0.0028	-0.0021	-0.0112	0.0375	-0.0404	0.0101	0.0028	-0.0554*
South	-0.0297	-0.0223	0.0133	0.0237	-0.0078	-0.0359	-0.0250	0.0056
Midwest	-0.0521*	-0.0256	0.0105	-0.0099	-0.0221	-0.0194	0.0165	0.0178
West	0.0847***	0.0538*	-0.0158	-0.0526*	0.0689**	0.0522**	0.0102	0.0268
Household with children	0.1148**	-0.0759	-0.0155	-0.0549	0.0721	-0.0406	0.0369	0.0856
College degree	0.0574**	0.0360	-0.0166	-0.0692**	0.0108	0.0357	0.0741***	0.0082
I or a member of my household is:								
Vegetarian	0.1707***	0.0503*	0.0557*	-0.0941***	0.1134***	0.1214***	-0.0339	0.0482*
Vegan	0.1844***	0.0736**	0.0641**	-0.0883***	0.1483***	0.1519***	-0.0472	0.0134

Statistical significance are indicated as 1%***, 5%**, and 10%* levels.

the preference share for procurement (0.1148). However, dietary choice, whether the participant or a member of their household was vegetarian was positively correlated with the sizes of preference shares for procurement (0.1707), animal welfare (0.0557), fair trade (0.1134), and biotechnology (0.1214). In contrast, indicating vegetarian dietary preferences (for the respondent or a member of their household) was negatively correlated with the size of the preference share for and health and safety (-0.0907), likely in part due to the forced tradeoff nature of the experiment. In other words, in order to place higher importance on one area of CSR, each respondent necessarily reduced focus on another area. Similar relationships existed for participants indicating vegan dietary preferences as were seen as for those indicating vegetarian preferences.

Food shopping behaviors were of special interest given the prominence of CSR areas in food and agriculture. Relationships amongst respondents' self-reported supermarket shopping and the size of preference shares (relative importance) of each CSR area are presented in [Table 5](#). Notably, regular shopping at Walmart was positively correlated with the size of preference share for (or relative importance of) health and safety. In contrast, regularly shopping at Walmart was negatively correlated with the size of preference shares for procurement, labor, biotechnology, and environment. Indicating regularly shopping at Costco was positively correlated with the size of preference shares for procurement, labor, fair trade, and biotechnology. Reporting regular shopping at Target was positively correlated with the size of preference share for community. Finally, indicating regular shopping at Amazon.com was negatively correlated with the size of the preference shares for procurement and labor. The relationship between perceived importance of procurement and labor for regular shoppers of Amazon.com was negative. Reporting regular shopping at Trader Joe's was positively correlated with the size of preference shares for procurement, fair trade, and biotechnology.

Several significant relationships were found amongst perceived importance of CSR areas and Whole Foods patronage. Most notably, indicating shopping regularly at Whole Foods was positively correlated with the sizes of preference shares for procurement, animal welfare, fair trade, and biotechnology. In contrast, indicating regular shopping at Whole Foods was negatively correlated with the size of preference share for health and safety. It is possible that this relationship between shopping at Whole Foods and relative ranking of health and safety was the result, at least in part, of the forced tradeoff nature of this question and the possible perception of the healthfulness (and safety) of the products offered in Whole Foods. Certainly, it can be presumed that those individuals choosing to shop at Whole Foods prioritize health and safety by virtue of having selected that store. Thus, perhaps in relative ranking of importance the starting point for health and safety (perceived to



Table 5. Correlations Amongst Regular Shopping and Areas of CSR Preference Shares ($n = 1,201$).

	Procurement	Labor	Animal welfare	Health and safety	Fair trade	Biotechnology	Environment	Community
Walmart	-0.0796***	-0.0576**	0.0067	0.0685**	-0.0295	-0.0170	-0.0789***	0.0230
Costco	0.0616**	0.0560**	0.0023	-0.0472	0.0503*	0.0897***	0.0047	-0.0044
Kroger	0.0152	0.0137	0.0187	-0.0182	0.0310	-0.0066	-0.0124	0.0172
Target	-0.0310	-0.0051	-0.0012	-0.0101	0.0317	-0.0013	-0.0289	0.0569**
Trader Joe's	0.0768***	0.0197	0.0046	-0.0423	0.0566**	0.0520*	0.0080	0.0105
Whole Foods	0.1074***	0.0284	0.0714***	-0.0872***	0.1250***	0.0685**	0.0139	-0.0193
Amazon.com	-0.0647**	-0.0614**	0.0105	0.0142	-0.0035	0.0379	-0.0285	0.0234

Statistical significance are indicated as 1%***, 5%**, and 10%* level.

already be high by many Whole Foods shoppers) impacted the relative prioritization of other areas of CSR.

Conclusions

Consumer interactions with food corporations occur with high frequency given the inherent necessity of foodstuffs. This research sought to contribute to the understanding of the relative importance placed on CSR areas prominent in U.S. food and agriculture, and further to investigate the relationships between those preferences and various demographics and shopping preferences. Notably, health and safety was rated highest in importance relative to all other areas of CSR. Respondents consistently made the tradeoff for health and safety over all other areas of CSR presented in this study. Environment was rated as the second highest in terms of relative importance of CSR areas. Procurement was rated the lowest in importance, which could be indicative of consumers having little or no information about procurement practices and/or actually thinking procurement to be of low importance or not really understanding what procurement entails.

Relationships were seen amongst perceived importance of CSR areas and self-reported supermarket shopping. Indicating regular shopping at Costco, Trader Joe's, and/or Whole Foods was correlated with having larger preference share sizes for procurement, fair trade, and biotechnology. Indicating regular shopping at Walmart was correlated positively with the relative importance placed on health and safety. The implications for supermarket management involve the notion that a clearer understanding of customers' CSR perceptions may allow supermarkets to better meet their demands for social responsibility.

This study is limited by an accurate understanding of consumers' interpretations of CSR areas. It is unclear what exactly consumers thought when terms like "health and safety" or "procurement" were used. Past studies have revealed that because of people's varying perceptions of CSR areas, there is overlap in their understanding of the different applications. For example, "procurement" may be conceptualized by some within the food industry as sustainable food procurement, which often implies local sourcing, organic, environmental attributes, animal treatment, or other aspects. Further studies could examine to what extent definitional overlap exists in order to clarify the relationship between understanding and perception. As well, studies could build on this work by further investigating the nature of individuals' connections to, whether shopping or not and for what reason/s at supermarkets, and their perceptions of CSR.

Notes

1. Note that the term “supermarket” is used in this paper to broadly characterize the food retailing corporations presented in this research.
2. Individual-specific preference shares, while not displayed for every individual ($n = 1,201$) in the sample, were utilized in further analysis, namely correlations between individual-specific preference shares and responses to other survey questions.

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