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Investigating U.S. resident perceptions of corporate social responsibility in food and agriculture

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Is approved by the final examining committee:

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INVESTIGATING U.S. RESIDENT PERCEPTIONS OF CORPORATE SOCIAL

RESPONSIBILITY IN FOOD AND AGRICULTURE

A Thesis

Submitted to the Faculty

of

Purdue University

by

Carissa Jae Morgan

In Partial Fulfillment of the

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of

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For my family, my team

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ABSTRACT

Morgan, Carissa J., M.S., Purdue University, May 2016. Investigating U.S. Resident Perceptions of Corporate Social Responsibility in Food and Agriculture. Major Professor: Dr. Nicole Olynk Widmar.

Corporations are prioritizing corporate social responsibility (CSR) activities by investing in and actively promoting their social practices. In the U.S. of the modern food supply chain creates a unique challenge for corporations to address concerns about social issues of consumers and non-consumers alike. This study is motivated by the need to better understand individuals' perceptions of CSR as it pertains to the food supply chain. In April 2015 an online survey collected information from 1,201 U.S. residents with the objective of investigating individuals' perceptions of relative importance of eight prominent CSR areas relevant to food and agriculture. Demographic, household consumption, and personal practices related to social issues were collected. Each respondent also completed best-worst tasks designed to elicit relative importance of each of the CSR areas by U.S. residents. This study found that for the sample as a whole, health and safety was perceived (relative to all other areas studied) as the most important CSR area, and environment was prioritized second. Reporting gender as female and/or age over 65 years of age, 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

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correlated with the size of the preference share devoted to procurement, labor, fair trade, and biotechnology. In addition the relationships between respondent perceptions of importance of CSR areas and relative social responsibility in supermarkets, fast food, and animal welfare groups were investigated. A clearer understanding of U.S. resident's perceptions of importance of CSR areas relevant in the U.S. food and agricultural supply chain is a vital step toward improving food corporations' social practices to meet individuals' expectations.

CHAPTER 1. INTRODUCTION

1.1   Corporate Social Responsibility

Overt benefit to society colors modern day corporate social responsibility (CSR),

and includes activities beyond a business' traditional economic and legal obligations.

Harold Johnson (1971) explicitly contributed "utility maximization" as the primary goal

of an organization. In Johnson's interpretation of 'utility,' an organization's leadership

has multiple objectives, which include monetary profit maximization and the well-being

of others in the organization and society (Carroll, 1994). Further yet, Drucker (1984)

contributed to the evolving concept of CSR, believing social responsibility and

profitability were related notions. He claimed the proper perspective on social

responsibility was 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).

Today's concept of CSR includes such themes as corporate social performance

(CSP), business ethics, stakeholder theory, and corporate citizenship (Carroll 1999).

McGuire (1963) believed those responsibilities could be themed educational, community

welfare, employee satisfaction, and benefit to the social world. More recent studies also

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 and Jennings, 2004). Maloni and Brown (2006) found eight prominent applications of CSR in the food supply chain, including: procurement, animal welfare, biotechnology, environment, fair trade, health and safety, labor, and community.

A single concise definition for CSR has yet to be agreed on (Mohr et al., 2001). Though a widely referenced and accepted definition of CSR belongs to the European Commission which defines CSR as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interactions with stakeholders on a voluntary basis," (Dahlsrud, 2008; European, 2001). Carroll's (1991) definition of CSR includes four broad dimensions: economic, legal, ethical, and philanthropic. Kotler (1991) takes a corporate perspective defining CSR as a way of doing business that mutually benefits society and the consumer. Mohr et al. (2001) interprets CSR as a company's commitment to eliminating harmful effects and maximizing long-run benefits to society (Petkus and Woodruff, 1992). As well, Mohr et al. (2001) claims dimensions of CSR must include abiding by the law, obeying ethical norms, fair employee treatment, environmental protection, and charitable contributions (Mohr et al., 2001). It is probable that a single agreed upon definition of CSR has not been created because different organizations, groups, or individuals do not share the same perspective on social responsibility and therefore would not have the same definition. In the next section the different perspectives on social responsibility are explored.

1.2   Varying Perspectives on Corporate Social Responsibility

Maloni and Brown (2006) view CSR as the ethical parameter around its business

operations, in which an organization is held accountable by a variety of stakeholders.

These stakeholders can include consumers, producers, governments, non-governmental

organizations (NGOs), special interest groups, media, and others which will likely change

depending on the specific corporation or industry being studied. Stakeholders

accountable for any given CSR activity seek to maximize their own utility, which is to

gain the greatest possible benefit from the activity. As in Johnson's (1971) definition of

CSR, managerial leadership seeks to maximize the utility of the organization by not only

maximizing profits but also contributing to the well-being of others and society. What

benefits do other pertinent stakeholders seek to gain from CSR activities?

1.2.1   Government

Corporate ethics are of interest to governments (Maloni and Brown, 2006).

Regulations are one way governments can exert control over an organization's activities.

Consider the case of genetically modified organisms (GMOs) in countries of the

European Union, in which European governments highly regulate, and in most cases,

prohibit the sale or marketing of GMO products (Gently Modified, 2015). In the example

of European governments, the government's 'vote' effects product options available and

limits products available for purchase by the end consumer. However, European

organizations are generally considered more forward thinking than U.S. in their CSR

practices (Tschopp, 2005), and European consumers more willing to pay for CSR

attributed products (Maloni and Brown, 2006; Plesmacker et al., 2005). Critics of CSR

have stated that the "the production of goods or the prevention of bads" is actually the role of a democratic government (Hartmann, 2011; Kitmueller, 2008; Bé nabou and Tirole, 2010). Looking to Europe as more advanced in their application of CSR practices gives one progressive perspective on the issues.

This study will focus on applications of CSR as they exist in the U.S. Ribera (2016) implies that the modern U.S. food supply chain is a complex and diverse global food system that includes governmental regulation and accommodates consumer needs. Tschopp (2005) claims external public pressure can motivate governments to adapt CSR initiatives. The U.S. Food Safety Modernization Act, effective January 2016 is a current example of adapting governmental regulation, taking on a more preventative approach to issues related to food safety (Ribera, 2016). The government has set numerous laws and regulations to cover issues of social responsibility, including environmental, labor and fair wage, human rights, food safety, and many others (Ribera, 2016; Aaronson, 2005; Tschopp, 2005).

1.2.2 Activist Groups and Media Presence

Increasing activity of consumer and other activist groups highlight the importance of social and moral concerns of involved individuals. Such is the case for issues like child labor, environment, animal welfare, and other social issues (Auger et al., 2007). Consumers are increasingly interested in CSR, with some bringing attention to the issues via boycotting and other campaigns (Öberseder, 2011).

Individuals and organizations apt to use virtual social media networks can instantly post videos, text, and share links voicing their social interests to a global

audience. In the case of media stories about lean finely textured beef products in 2012, online media and social networks enabled a quick exchange of information between consumers (McKendree et al., 2014a). Social and organizational media presence plays an influential role in corporate adaptation to CSR issues (De Bakker and Hellsten, 2013). Animal welfare organizations are one example that raise awareness of issues of animal treatment through the use of campaigns (McKendree et al., 2014b). McKendree et al. (2014b) investigated the role of media in people's perceptions of animal welfare, finding the majority of respondents have no informational source about animal welfare. Of those that did, animal welfare organizations such as the Humane Society of the United States (HSUS) and People for the Ethical Treatment of Animals (PETA) were the primary sources of animal welfare information.

1.2.3 Food Corporations

As the concept of CSR develops it has evolved into a top priority in many businesses. In fact, according to Hartmann (2011), managers in the global retail and consumer sector rank CSR as the number one priority (The Consumer Good Forum, 2011). Though voluntary, many companies issue CSR reports to relay their social activities so that stakeholders can be better informed to make decisions (Tschopp, 2005). In reality consumers generally believe that corporations pursue CSR initiatives with multiple motivations (Öberseder, 2011; Ellen et al., 2006; Vlachos et al., 2009). Swanson (2005) outlines motivations for businesses to incorporate CSR activities into their practices as either 1) to have a positive impact on society, 2) as a means to achieve business objectives, or 3) to conform to stakeholder expectations. Jagger (2004) suggests

that in order of priority, businesses must first address government regulations and demands of employees, then the concerns of consumers and the general public. However, Vlachos et al. (2009) finds 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, 2011).

Lang and Heasman (2015) state that regulations set by food corporations can be as influential as those set by governments, and possibly more relevant in terms of how food is produced and processed. Deselnicu et al. (2012) gives examples of large retail supermarkets, Walmart and Costco that place downward pressure on their suppliers to adhere to their CSR standards in order to mitigate negative publicity. Though for the average U.S. consumer, awareness of CSR practices is low, and therefore communicating company values through CSR activities is vital to consumer awareness (Öberseder, 2011; Shuili et al., 2010). Businesses can encourage consumer ethical behavior and increase awareness of CSR issues through marketing and providing product options that can reflect and also influence consumer preferences (Auger et al., 2007; Kim et al., 2002; Manyiwa and Crawford, 2002; Dibley and Baker, 2001; Kamakura and Novak, 1992).

Particularly in the U.S., retailers and supermarkets are often the first face of the food that consumers meet, and therefore often held responsible for the social practices of the food supply chain. Specifically, Erdem et al. (2012) found in a study on perceptions of responsibility for ensuring food safety in the chicken supply chain, consumers and farmers both believe, relative to other links in the supply chain, retail supermarkets the most responsible. Large food corporations face a complex challenge of addressing consumer demands for socially minded practices while not always maintaining direct

control over product suppliers and their production practices. Product promotions and services communicated through media and company websites are ways food corporations share their CSR activities with stakeholders.

Public perception of corporate food practices can be vital to corporate image. Some U.S. based fast food corporations are creating a brand image around the CSR practices; Panera Bread advertises their food as made with 'clean, antibiotic free ingredients'; Starbucks prides itself on 'ethical sourcing of fair trade coffee (Starbucks, 2016)[1]; Chik-fil-A leverages their family values as a part of their service to their communities (Chik-fil-A, 2016)[2]; Chiptolé claims to sell 'food with integrity,' which is good for consumers and farms, animals, and the environment (Chipotle, 2016)[3]; Taco Bell is joining a long list of fast food restaurants pledging to use only eggs from cage-free chickens (Washington Post, 2015)[4]. Though albeit driven by different motivations, these are a few examples of the types of social practices being incorporated into the practices of prominent fast food corporations.

1.2.4   Individual Perspectives

Neoclassical economics recognizes that consumers make choices based on their preferences. Consumer preferences, in economic terms, are expressed via a utility function, which seeks to maximize utility subject to a budget constraint (Lusk and

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[1] Note the event listed here occurred post survey. It is listed as a relevant application of CSR of the named corporation.

[2] Note the event listed here occurred post survey. It is listed as a relevant application of CSR of the named corporation.

[3] Note the event listed here occurred post survey. It is listed as a relevant application of CSR of the named corporation.

[4] Note the event listed here occurred post survey. It is listed as a relevant application of CSR of the named corporation.

Briggeman, 2009; Varian, 1982). Consumer choices can also be constrained by the opportunities available to reflect their preferences (Auger et al., 2007). Auger et al. (2007) suggest that there is a positive correlation between consumer interest to make socially conscious purchasing decisions and the increasing affluence in the developed world.

Several researchers have attempted to link consumer purchasing behavior and value systems by investigating socially responsible consumer behavior (Roberts, 1995), attempting to understand consumer preferences through food values (Lusk and Briggeman, 2009), and the underlying value systems of consumer preferences (Schwartz, 1992; Gutman, 1973; Rokeach, 1973). Generally, findings in these studies agree with the statement that consumer choices reflect preferences and vice versa (McFadden, 1974). Schwartz (1992) defined values as the concepts that guide people's beliefs and in turn orient them to act according to their system of values. De Plesmacker et al. (2005) recognizes the interconnected nature of people's preferences and their values, claiming that values are in part driven by people's ethical consumption behavior.

The issue of social responsibility and eliciting the behaviors and personal practices of individuals is subject to a multitude of biases in collecting information/data. These difficulties in self-reported behaviors may be seen as being tied to one's "goodness" or "badness" is seen in consumers' willingness to pay. In choice experiments participants can directly state their willingness to purchase CSR attributed products, however purchasing practices of consumers often reveal their stated willingness to pay is less than their interest to purchase the CSR attributed product (Öberseder 2011; Auger et al., 2007).

   Failure to understand the perspective of the individual, their awareness and interpretation of social and ethical issues can lead to inefficient governmental policies and ineffective CSR practices (Auger et al., 2007). This implies that ultimately the individual perspective is important for governments and businesses to consider when implementing applications of CSR. Given the nature of this research, a special focus is placed on the individual perspective when investigating CSR areas relevant to U.S. food and agriculture, as outlined by Maloni and Brown (2006).

CHAPTER 2. PREVIOUS STUDIES: CSR APPLICATIONS IN U.S. FOOD AND
AGRICULTURE

Monkika Hartmann (2011) claims that food and agriculture are "high impact"

industries and important for one of humans' most basic needs. Certainly, food and

agricultural industries hold the primary responsibility for delivery of food products in the

U.S. and throughout the world. The modern food retail industry is prominent and visible

to the public eye largely because it supports a basic requirement for human life (Maloni

and Brown, 2006). The food and agricultural industries, collectively, play a substantial

role in the U.S. national economy as a multi-trillion dollar industry and leading exporter

of agricultural goods (Standard and Poor's, 2005). However, a shortcoming of the U.S.

food industry is perhaps inherent in its complex and multi-level supply chain that may

limit its ability to address a myriad of consumer concerns through CSR activities at the

different levels of processing and production (Maloni and Brown, 2006).

Applications of CSR previously cited by Maloni and Brown (2006) list eight

relevant areas of responsibility for U.S. food and agricultural businesses. U.S. food and

agriculture businesses are subject to increasing industry regulations and standards under

which food is produced and marketed. Additionally, societal pressures, media influences,

and consumer demands require companies to consider the social and environmental

repercussions of their activities and to be more open and transparent (Freeman, 2010).

External expectations of social responsibility in the food supply chain have implications

for all areas of the food supply chain, including restaurants, food retailers and

supermarkets, and related interest groups (Maloni and Brown, 2006). In an effort to

better understand previous literature and studies on social responsibility in the food

supply chain, Chapter 2 focuses on previous research in the eight dimensions of CSR

relevant to U.S. food and agriculture as outlined by Maloni and Brown (2006) and

focused on throughout this analysis, namely animal welfare, biotechnology, community,

environment, fair trade, health & safety, labor rights, and procurement.

2.1 Animal Welfare

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 and Anthony, 2010; Norwood, 2011). There are a number of factors potentially

contributing to the increase in concern for animal welfare in food production. Among

those factors is an increasing disconnect between most consumers and the production

process; there is low consumer exposure at the farm level, where animals are raised, in

processing, and distributing segments of the food supply chain (McKendree et al., 2014a).

Animal processing in food production is an increasingly large-scale process, and

consumer segments are increasingly voicing concern on animal welfare issues in animal

agriculture, particularly in large-scale production agriculture. It is probable that the

trends in moral consideration and inclusion of minority groups in Western nations are

extending to animals, further contributing to consumers' growing concern for animal

agriculture (Croney and Botheras, 2010).

Socially responsible, animal-friendly, and welfare-attributed products are increasing in demand from a growing consumer segment. This demand is projected onto food corporations and related agri-businesses with the expectation they will produce products that adhere to consumers' evolving and/or expanding ethical standards on animal welfare. An accurate understanding of consumer perceptions and preferences on animal welfare makes it necessary for an efficient food marketplace to contribute more fitting CSR production practices to meet consumer demands. CSR operates on the notion that a corporation is held ethically and socially responsible by a diverse group of stakeholders; this reality coupled with consumers' increasing attention to animal welfare has made food retailers more mindful of animal welfare practices in their supply chains activities (Maloni and Brown 2006).

2.2   Biotechnology

Biotechnology means the use of biological processes for human purposes, including genetically modified (GM) products (Blaine et al., 2002). Blaine et al. (2002) expands on the definition claiming 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. Brehdal (1999) claims that in the case of the European consumer, opportunities to purchase genetically modified products are limited and therefore product purchase decisions are more closely related to personal values than experience or knowledge. Whereas, studies have shown U.S. consumers to be more

willing to accept, though low in knowledge of, biotechnology applications in food production (Hossain et al., 2004).

Hossain et al. (2004) found U.S. consumers to generally overstate their knowledge about biotechnology as it pertains to food production. As well, the majority of U.S. consumers believe "biotechnology will improve quality of life," and overall benefit people (Hossain et al., 2004). Meanwhile considerable concern and opposition more often characterizes European consumers' attitudes of genetically engineered food production (Brehdal, 1999). Sparks, Shepherd, and Frewer (1994) found British consumers have limited knowledge of gene technology in food production and they perceive biotechnology to be high risk with low reward. Research also suggests that people's perception of biotechnology is swayed by the degree to which they believe biotechnology effects other areas of CSR, including environment and food safety (Hossain et al., 2004; Blaine et al., 2002). Chipotle is one example of a large food corporation that proudly advertises foods made from GMO-free ingredients, claiming their meals to be inherently healthier for consumers, better for farmers, and friendlier towards the environment (Chipotle, 2016).

2.3   Community

Studies reveal community to be an important and relevant area of CSR in the food supply chain (Maloni and Brown, 2006). Kochhar (2014) investigates "community-building" as an application of CSR, finding it to have little focus in businesses but critical to social development in communities of China and India. Thus, community is expected to have differing levels of value depending on the specific location (community) in

question. According to Kochhar (2014), community-building means community involvement, nurturing, and organizing. Carter and Jennings (2004) include volunteering and philanthropic activities benefiting the local community in their definition of community development. Carroll (1998) claims CSR as perceived by the public, must include contributions to the community and is done by "excellent" companies. Carroll (1998) also emphasizes the need to make giving back to the community or charitable contributions a priority CSR activity.

Neihm et al. (2008) found in a study of family-owned businesses, that investing in "community social responsibility" benefited the business in both increased positive public perception and increased economic benefit. Du et al. (2010) reports that large corporations seek to gain loyal customers from investing in local communities. Loyal customers are more likely to seek employment and even invest in the company (Sen et al., 2006). Studies find that long-term commitment to the improving community welfare bodes well for company image and economic returns (Du et al., 2010; Webb and Mohr, 1998).

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 similar fashion, Whole Foods advertises community giving as a part of their mission, supporting communities and local causes; congruently Whole Foods has committed 5% of its annual profits to community service projects (Du et al., 2010). These companies recognize the rewards of investing in the local community and therefore make community-driven CSR initiatives a priority.

2.4   Environment

Food and agricultural production can have a direct impact on the environment. Ecological destruction through soil, water, and air pollution are among the harmful effects farming and food production can have on the environment (Maloni and Brown, 2006; Roberts, 2003; Fox, 1997). Governmental programs, such as the Environmental Quality Incentives Program of the 2014 Farm Bill are an effort to control environmental degradation in the initial links of the food supply chain by incentivizing farmers and ranchers to adopt land and forest conservation farming techniques (NRCS, 2014). Devinney et al. (2006) claims environmental activism has been a forerunner in consumer activism since the 1960's. As well, corporations may offer incentives to their suppliers, franchisers, and retail stores to adhere to higher environmental standards (Maloni and Brown, 2006).

Even so, previous studies have found 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 both of the previously mentioned choice experiments environment was rated of low importance relative to other presented attributes, meaning that consumers of both studies made a tradeoff in favor of other options over environmental choices. 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. These findings indicate that consumers who prioritize environmental welfare, though consistent in their selections, represent a relatively small part of the U.S. population.

<p style="text-align:center">2.5   <u>Fair Trade</u></p>

Fair trade is an area of corporate responsibility growing in "public popularity," which Maloni and Brown (2006) assert is a responsibility of food retailers to support prices to that allow their suppliers to avoid poverty and sustain their businesses. Consumers demand companies source fair trade coffee, according to Straus (2000); Starbucks began selling only fair trade coffee after experiencing public pressure to address issues of human rights in their procurement practices (De Pelsmacker et al., 2005).

De Pelsmacker et al. (2005) researched the relationship between consumers' ethical behaviors and their willingness to pay for fair trade coffee. Participants were presented several coffee options across many scenarios in a choice experiment, forcing them to make tradeoffs between the attributes of each coffee presented. The personal values of participants were measured using the Rokeach value scale, which qualifies people's values based on a set of 18 terminal values related to the end states of existence (Rokeach, 1973). The respondents' personal value attributes were correlated with their willingness to pay for fair trade attributed coffee (De Pelsmacker et al., 2005). The results for the entire study showed participants are more willing to purchase coffee by brand and flavor rather than a fair trade label. When segmented into different groups, the "fair trade lovers" (those participants prioritizing the fair trade label first in their coffee

purchase) constitute only 11% of the sample and are also 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 prioritizing the fair trade attribute enough to pay the premium for it.

<div align="center">2.6   <u>Health & Safety</u></div>

Health and safety, in the context of research studies, is consistently found to be a priority for U.S. food consumers. In a study on U.S. consumer perceptions of food values, Lusk and Briggeman (2009) found food safety was ranked highest amongst 11 prominent food values in importance; food safety was significantly more important that origin, nutrition, taste, or price. Lusk and Briggeman (2009) introduce the idea that perspective is important to consider when investigating relative responsibility for health and safety.

Erdem et al. (2012) studied perceptions of consumers and producers about relative responsibility for ensuring food safety in the beef and chicken food supply system. The study found that U.S. consumers view themselves as less responsible (than farmers), and interestingly, farmers perceive themselves less responsible (than consumers). Though when questioned, specifically about chicken supply systems, both farmers and consumers believe retail supermarkets hold the most responsibility for ensuring food safety.

Unmet food safety standards can have real and potentially harmful implications for the food and agricultural industries. Significant upward and downward pressure from the public and government force food and agricultural industries to be proactive in food safety standards. The U.S. government issues current food product recalls, which are updated daily and available to all consumers (Food Safety, 2016). Consumer trust in the

safety of food products is essential for the economic vitality of food and agricultural

businesses. In U.S. government efforts to ensure the safety of food, the Food

Modernization Act was implemented to update standards guiding the food supply system

by incorporating more preventative measures of food safety. Though these standards

should improve food safety, they are likely to have costly implications for food and

agricultural production (Ribera, 2016). The increasing costs associated with adhering to

new standards may be an important consideration as they have potential to alter

corporations' perspectives on the importance of food safety.

2.7   Labor

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 1990's international labor standards have been set to guide and limit the

use of foreign and child labor (Maloni and Brown, 2006). This is in part due to U.S.

consumers' strong objection of the use of foreign and child "sweatshop" labor by large

U.S. retailers such as NIKE and Walmart in clothing production (Emmelhainz and

Adams, 1999). Aaronson's (2005) investigative research explored the U.S. government's

role in promoting and advocating for labor and human rights, finding that the U.S. was

comparatively less prominent when compared to other Western developed nations. In an

effort to improve labor working conditions overseas the in 1996 U.S. Department of

Labor initiated the creation of the Fair Labor Association, a representative group of

corporations, labor unions, and NGOs of the apparel industry.

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 2015 the Fair Food Program's supporters successfully rallied large U.S. retailers and fast food restaurants by campaigning them (food corporations) to sign a petition promising to increase farm worker wages one cent per every pound of tomatoes the corporation buys; mid-November 2015 the petition had been signed by McDonald's, Burger King, Subway, Taco Bell, Chipotle and Walmart (The Nation, 2015).

2.8   Procurement

At the junction of food production, distribution, and procurement is the necessity of food to sustain human life, and therefore also cross over many issues related to prominent areas of CSR including health, safety, and environment (Harvie et al., 2009). Sustainable food procurement has been thought of as a solution to issues related to sourcing within the food supply chain. Sustainable food procurement standards in the UK emphasize sourcing locally, supplying healthy and nutritious foods, minimizing adverse environmental effects, and supporting fair trade foods ultimately for the benefit of the local people and economy (Rimmington et al., 2006). Harvie et al. (2009) suggests governmental policies be put in place to ensure sustainable food procurement and incorporate it as part of a health care system in which people of a community have available access to nutritious, locally sourced foods, environment and animal-welfare focused food options.

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. Sourcing and procurement decisions are necessary for business production. The nature of those decisions can have a major impact on the economic success of a business (Baden et al., 2011). Seventy-five percent of small and medium-sized business owners believe imposed governmental or consumer CSR regulations would lower business (or management) driven CSR decisions (Baden et al., 2011). For some corporations this results in a conflict between internal pressures and external pressures to incorporate CSR practices into their business operations.

CHAPTER 3. METHODS

3.1   <u>Methodology: Best-worst Scaling</u>

Best-worst scaling (BWS) is a methodology that forces participants to make tradeoffs amongst multiple attributes across many scenarios where the result is the difference between their most preferred option and their least preferred option (Louviere, 1993). For this reason, the type of BWS used in this experiment is also referred to as maximum-difference scaling. The method of BWS was developed by Jordan Louviere in the late 1980's and published in the work of Louviere and Woodworth (1990) (Flynn, 2010). It is a process by which participants make selections along a continuum of importance (Finn and Louviere, 1992), from which consumer preferences are elicited through a series of choice scenarios (Finn and Louviere, 1992). This methodology (BWS), though more general and allowing for more attribute selections, builds on Thurstone's (1927) Method of Paired Comparison (MPC) (Erdem et al., 2012).

BWS originates in random utility theory, a well-tested theory of human decision-making (McFadden, 1974). In prominent BWS studies, alternative terms such as "most" and "least" important have also been used by both Lusk and Briggeman (2009) to examine food values, and "best" and "worst" policies were examined by Wolf and Tonsor (2013) with respect to dairy farmer policy preferences. Erdem et al. (2012) used "most" and "least" responsible to elicit from consumers and farmers their subjective

perceptions of relative responsibility for ensuring food safety. This analysis uses "most" and "least" important to elicit consumer preferences for the given areas of CSR.

3.2   Relative Importance of CSR Areas

March 31st to April 4th of 2015, a nationwide survey was distributed online to collect U.S. resident perceptions on the relative importance of prominent areas of CSR. The survey was hosted through Qualtrics at Purdue University and Lightspeed GMI distributed a link to the survey via their large opt-in panel database. All survey respondents completed the best-worst portion of the survey (which consisted of eight choice tasks or individual questions) focused on the eight areas of CSR proposed by Maloni and Brown (2006). The areas of CSR focused upon (in no particular order) were procurement, animal welfare, biotechnology, environment, fair trade, health and safety, labor, and community. Each scenario 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. An example of a best-worst choice scenario is presented in Figure 3.1.

| Question 1 | | |
Most		Least
☐	Environment	☐
☐	Procurement	☐
☐	Biotechnology	☐
☐	Fair Trade	☐
☐	Health and Safety	☐
☐	Animal Welfare	☐
☐	Community	☐

Figure 3.1 Example CSR Areas Choice Scenario

3.3   Econometric Analysis

Participants chose any one area of CSR up to seven times. Given there are eight

attributes (j), J=8 in the experiment, the total possible combination choices was

calculated as: $J(J-1) = 56$. In other words, there were a total of 56 different possible

choice combinations that could have been selected by survey respondents. 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 and 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:

$$I_{ij} = \lambda_i + \varepsilon_{ij} \tag{1}$$

The probability that a respondent in this study, a U.S. resident, chooses i and j,

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 and Briggeman, 2009), thus,

represented the maximum difference between a respondent's two chosen attributes.

As in the experiment 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:

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

The MNL model assumes homogeneity amongst respondents' preferences. However, U.S. resident perceptions on social responsibility were hypothesized to be heterogeneous. Past studies such as Shwartz (1992) and Auger et al. (2007), have proven that individual people, even within the same society, can have unique preferences. Further, heterogeneous preferences for various production processes and product attributes have been well documented in the literature. Therefore, the random parameter logit (RPL) model was estimated in addition to the MNL. 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 σj, and the random term μ_i. Adjustments for the RPL model were then specified as:

$$\tilde{\lambda}ij = \bar{\lambda}j + \sigma j\,\mu ij \tag{3}$$

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 and Briggeman, 2009).

The probability that each CSR area is picked as most important across all eight areas for each individual was then calculated, and necessarily sums to 1. The probabilities, also termed "share of preference" by Lusk and Briggemen (2009) were calculated as:

$$share_j = \frac{e^{\hat{\lambda}_j}}{\Sigma_{k=1}^{J} e^{\hat{\lambda}_l}} \tag{4}$$

A share of preference for all eight prominent CSR areas was calculated for the RPL model. From these shares, the perceived importance of each area (relative to all other areas) or the individual-specific parameter estimates was found through maximum likelihood estimation (MLE) using the individual-specific coefficients from the RPL

model. Normalizing MLE to 0 prevents the dummy variable trap (Lusk and Briggeman, 2009). Thus, relative perceived importance or individual-specific parameter estimates for each of the eight CSR areas were estimated for each respondent. The individual-specific parameter estimates were then used to calculate the mean share of preference for each area. The mean preference share for each area represented the average perceived importance (for each area) across the sample.

3.4   Description of the Sample Utilized (Data Employed)

The survey sample in this study was a representative sample of the U.S. population according to the U.S. Census (2012). A total of 1,201 U.S. residents, targeted to be representative of the U.S. national population by gender, age, income, and region of residence completed the survey. Survey respondents were required to be 18 years or older to participate. Table 3.1 details demographics of the sample and U.S. Census demographic statistics for comparison purposes. In addition to demographic information, participants were asked questions about their education and ages of children in their household. As well, information was collected about the participant (and their household) dietary preferences; whether they are or someone in their household is, a friend or family member, or if no one they know is vegetarian or vegan.

Table 3.1 Sample Demographics (n=1,201)

Variable Description	Survey (% of respondents)	Census (% of population)
<u>Female</u>	51	51
<u>Age</u>		
18 to 24 years	13	13
25 to 44 years	35	35
45 to 64 years	35	35
65 years and over	17	17
<u>Household Income</u>		
Less than $25,000	23	23
$25,000-$34,999	10	11
$35,000-$49,999	14	14
$50,000-$74,999	18	18
$75,000-$99,999	12	12
$100,000-$149,999	13	13
$150,000 or more	10	9
<u>Region</u>		
Northeast	18	18
South	38	38
Midwest	22	22
West	22	22
<u>Education</u>		
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	
Other	1	
<u>Children</u>		
Households with	32	
Households without	68	
<u>Vegetarian (% of responses)</u>		
I or a member of my household is	15	
A close friend or family member is	17	
No, neither I nor anyone I know is	74	
<u>Vegan (% of responses)</u>		
I or a member of my household is	8	
A close friend or family member is	11	
No, neither I or anyone I know is	78	

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. Those categories and the percentage of the sample within each category were as follows: less than $25,000 (23%), $25,000 to $34,999 (10%), $35,000 to $49,000 (14%), $50,000 to $74,999 (18%), $75,000 to $99,999 (12%), $100,000 to $149,999 (13%), and $150,000 (10%). For the purposes of this analysis, household income 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 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 are children in their household; the majority, 68% of households did not have children while the remaining 32% did. Other studies have shown households with more children typically report higher food expenditures (McKendree et al., 2014a), which is to be expected as additional food (and perhaps, in some instances, higher priced foods focused at children), would necessarily add to expenditures. It is hypothesized that that having children in the household affects perceptions of CSR, especially in light of impacts seen in the past on consumer purchasing behaviors and perceptions (McKendree et al., 2014a).

The majority of participants, 58%, received a higher education degree (highest level received as 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). McKendree et al. (2012) conducted a similar online survey in which 47% of the

sample had attained a degree in higher education. The sample of individuals used in this

analysis reported higher education levels than the U.S. Census reports for the U.S.

population. 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. Only 2% of the sample population in this

study did not graduate from high school. In total, 19% graduated from high school but

did not go on to further education, while 21% of the sample went to college but did not

earn a degree (the reasons for which were not collected in this survey). For the purposes

of this study, their highest diploma achieved represented the education level of

participants for all analysis completed.

In 2012 a Gallup poll found 5% of Americans considered themselves vegetarians

while 2% claimed to be vegan (Gallup, 2012). In this study, 15% of respondents

indicated that they or a member of their household was vegetarian. Of survey

participants, 17% said that a close friend or family member was vegetarian, while the

majority 74% reported that neither they nor anyone one they knew was vegetarian. With

respect to vegan dietary choices, 8% are or a member of their household was vegan, and

11% had at least one close friend or family member who was vegan. While the majority,

78% of the sample, claimed that neither they nor anyone they know was vegan.

3.5   Relationships between CSR Areas and Food Retailers and Supermarkets, Fast Food

Restaurants, and Animal Welfare Groups

Previous studies have collected information on U.S. residents' perceptions of CSR

for food retailers and supermarkets, fast food restaurants, and animal welfare groups

(those studies cited below). In order to provide greater depth, this study also investigated

the relationship between the size of the preference shares given for each of the eight

prominent CSR areas and the size of the preference shares given for the relative social

responsibilities of prominent organizations in or related to the food supply chain. This

was achieved through correlations between preference shares for perceived importance of

all eight CSR areas with preference shares of perceived CSR in food stores, fast food

restaurants, and animal welfare groups. Note that only a portion of the sample (hereby

referred to as subsamples) were presented with the survey questions related to the

perceived CSR for food retailers/supermarkets, fast food restaurants, and animal welfare

groups. The subsample demographics are shown in Table 3.2.

Table 3.2 Summary of All Other Subsample Demographics (% of Respondents)

	Variable Description	Food Stores (n=299)	Fast Food (n=302)	Animal Welfare (n=300)	U.S. Census (% of population)
	Female	51	47	52	51
Age	18 to 24 years	14	13	15	13
	25 to 44 years	35	35	33	35
	45 to 64 years	34	35	35	35
	65 years and over	17	17	17	17
Household Income	Less than $25,000	24	24	23	23
	$25,000-$34,999	10	9	11	11
	$35,000-$49,999	12	11	16	14
	$50,000-$74,999	22	20	16	18
	$75,000-$99,999	11	15	11	12
	$100,000-$149,999	13	12	13	13
	$150,000 or more	8	9	10	9
Region	Northeast	18	18	19	18
	South	35	41	40	38
	Midwest	26	20	21	22
	West	21	21	20	22
Education	Did not graduate from high school	2	2	3	
	Graduated from high school, did not attend college	18	17	19	
	Attended college, no degree earned	22	22	18	
	Attended college, associate or trade degree earned	14	14	14	
	Attended college, bachelor's (B.S. or B.A.) degree earned	27	27	27	
	Attended college, advanced (M.S., Ph.D., Law School) degree earned	17	16	17	
	Other	0	2	2	

3.5.1   Food Retailers & Supermarkets and CSR Areas

The mean preference shares, including the MNL and RPL output used to derive them, for food retailers and supermarkets are shown in Table 3.3. This output, specifically the individual-specific preference shares for the corporate responsibility of seven prominent food retailer/supermarkets, are from a related paper (in progress) called *Perceptions of Social Responsibility in Food Retailers and Supermarkets*. A subsample of the national survey, n=299, were shown a best-worst choice experiment in which they indicated their preferences for the "most" and "least" socially responsible food retailers and supermarkets over a series of seven maximum-difference choice scenarios. Seven food retailer/supermarkets were assessed in this study: Walmart, Costco, Kroger, Target, Trader Joe's, Whole Foods, and Amazon.com.

Table 3.3 Output and Derived Preference Shares of Food Retailers & Supermarkets

Value	MNL	RPL Econometric Estimations		RPL Mean
	Coefficient	Coefficient	Standard Deviation	Shares of Preferences
Costco	0.6386*** (0.0569)	0.2299** (0.0945)	1.3971*** (0.1060)	0.0990
Kroger	1.0258*** (0.0584)	0.1889*** (0.0691)	0.5258*** (0.1397)	0.0950
Target	-0.0680 (0.0555)	0.2898*** (0.0799)	0.8974*** (0.1119)	0.1051
Trader Joe's	0.1431** (0.0560)	0.7015*** (0.1212)	2.1122*** (0.1323)	0.1587
Whole Foods	-0.1412** (0.0558)	1.5390*** (0.1265)	2.0165*** (0.1196)	0.3666
Amazon.com	0.4543*** (0.0561)	0.2087** (0.0936)	1.4184*** (0.1097)	0.0969
Walmart	0.00	0.00		0.0787

Statistical significance to the 1%***, 5%**, and 10%* levels.

In summary, Whole Foods had the largest mean preference share of 36.7%, and therefore was perceived, when comparing mean RPL estimates, to be the most socially responsible of the studied food retailers and supermarkets. Trader Joe's with a mean preference share of 15.9% held the second largest preference share of perceived social responsibility. Walmart was perceived to be the least socially responsible with the smallest mean preference share of 7.9%.

In this analysis the individual-specific preference shares for social responsibility of food retailers and supermarkets for the subsample, which saw the food retailers and supermarkets question (n=299) were correlated with the individual-specific preference shares of perceived importance of prominent areas of CSR and shared in section 4.4.1.

3.5.2   Fast Food Restaurants and CSR Areas

Similarly, the MNL and RPL output for fast food restaurants is shown in Table 3.4. A subsample of the national survey, n=302, were given a best-worst choice experiment in which they indicated their preferences for the "most" and "least" socially responsible fast food restaurants over a series of eleven maximum-difference choice scenarios. Eleven restaurants were included in this experiment: McDonald's, Subway, Panera Bread, Starbucks, Wendy's, Burger King, Taco Bell, Dunkin' Donuts, KFC, Chik-fil-A, and Chipotle.

Table 3.4 Output and Derived Preference Shares of Fast Food Restaurants

Value	MNL	RPL Econometric Estimations		RPL Mean Shares of Preferences
	Coefficient	Coefficient	Standard Deviation	
Subway	0.7664*** (0.0569)	1.1139*** (0.0848)	1.2005*** (0.0824)	0.1420
Panera Bread	0.9400*** (0.0571)	1.4454*** (0.0934)	1.6578*** (0.0859)	0.1978
Starbucks	0.5192*** (0.0565)	0.7468*** (0.1034)	1.9549*** (0.0950)	0.0984
Wendy's	0.4859*** (0.0564)	0.6606*** (0.0679)	0.4282*** (0.0690)	0.0902
Burger King	0.1456*** (0.0561)	0.1976*** (0.0688)	0.6346*** (0.0697)	0.0568
Taco Bell	-0.0990* (0.0562)	-0.1400** (0.0649)	0.0541* (0.0851)	0.0405
Dunkin' Donuts	0.2616*** (0.0562)	0.3714 (0.0671)	0.2549** (0.1085)	0.0676
KFC	0.0151 (0.0563)	-0.0018* (0.0652)	0.2189** (0.1111)	0.0465
Chik-fil-A	0.6064*** (0.0566)	0.9715*** (0.0973)	2.1151*** (0.1040)	0.1232
Chipotle	.4365*** (.0565)	0.6615*** (0.0928)	1.7015*** (0.0786)	0.0903
McDonald's	0.00	0.00		0.0467

Statistical significance to the 1%***, 5%**, and 10%* levels.

In summary, Panera Bread has the largest mean preference share of 19.8%, and therefore is perceived, when comparing RPL mean estimates, to be the most socially responsible (relative to all other restaurants studied) fast food restaurant. Subway has the second largest mean preference share of 14.2%, followed by the mean preference share for Chik-fil-A (12.3%). Taco Bell with a mean preference share of 4.1% and McDonald's with a mean preference share of 4.7%, were perceived to be the least socially responsible of the fast food restaurants presented in this study.

In this ongoing analysis, focused on fast food restaurants, the individual-specific social responsibility preference shares for fast food restaurants for the subsample, which saw the fast food restaurant question (n=302), were correlated with the individual-specific preference shares of perceived importance of prominent areas of CSR. Those results are shared in section 4.4.2.

3.5.3 Animal Welfare Groups and CSR Areas

Lastly, MNL and RPL output for animal welfare groups are revealed in Table 3.5. This output, specifically the individual-specific preference shares for the CSR practices of seven animal welfare groups, are from an ongoing study called *Perceptions of Social Responsibility in Prominent Animal Welfare Groups*. A subsample of the national survey, n=300, were given a best-worst choice experiment in which they indicated their preferences for the "most" and "least" socially responsible animal welfare group over a series of seven maximum-difference choice scenarios. Seven animal welfare groups were included in this experiment: Humane Society of the United States (HSUS), American Society for the Prevention of Cruelty to Animals (APSCA), Mercy for Animals, American Veterinary Medical Association (AVMA), Compassion Over Killing, American Humane Association (AHA), and People for the Ethical Treatment of Animals (PETA).

Table 3.5 Output and Derived Preference Shares for Animal Welfare Groups

Value	MNL	RPL Econometric Estimations		RPL Mean Shares of Preferences
	Coefficient	Coefficient	Standard Deviation	
Humane Society of the United States (HSUS)	.6386*** (.0569)	.8850*** (.0847)	.92905*** (.09210)	0.1919
American Society for the Prevention of Cruelty to Animals (ASPCA)	1.0258*** (.0584)	1.4956*** (.10954)	1.40447*** (.10425)	0.3534
Mercy for Animals	-.0680 (.0555)	-.08318 (.06395)	.34161*** (.12080)	0.0729
American Veterinary Medical Association (AVMA)	.1431** (.05601)	.17521* (.09325)	1.21548*** (.09354)	0.0944
Compassion Over Killing	-.1412** (.05582)	-.15558** (.07822)	.89081*** (.09359)	0.0678
American Humane Association	.4543*** (.0561)	.57204*** (.06980)	.56557*** (.09400)	0.1404
People for the Ethical Treatment of Animals (PETA)	0.00	0.00		0.0792

Statistical significance to the 1%***, 5%**, and 10%* levels.

In summary, ASPCA has the largest mean preference share of 35.3%, and therefore was perceived, when comparing mean RPL estimates, to be the most socially responsible of animal welfare groups in the study. HSUS with a mean preference share of 19.2% held the second largest share of social responsibility. Compassion Over Killing with the smallest mean preference share of 6.8% was perceived to be the least socially responsible animal welfare group.

In this analysis the individual-specific social responsibility preference shares for animal welfare groups for the subsample which saw the animal welfare group question (n=300) were correlated with the individual-specific preference share of perceived importance of prominent areas of CSR and shared in section 4.4.3.

CHAPTER 4. RESULTS AND DISCUSSION

4.1   Mean Preference Shares for CSR Areas

The MNL and RPL utility parameter estimates from the BWS questions for the

eight prominent areas of CSR are shown in Table 4.1. In addition, the mean preference

shares for each of the eight prominent areas of CSR, derived from the RPL estimates, are

also shown in Table 4.1. In addition to calculating the mean preference shares

individual-specific preference shares for each area of CSR were calculated using the

individual-specific parameter estimates from the RPL model (also shown in Table 4.1).

Individual-specific preference shares, while not displayed for every individual (n=1,201)

in the sample, were utilized to conduct further analysis, namely correlations between

individual-specific preference shares and responses to other survey questions.

Table 4.1 Output and Derived Preference Shares for Prominent Areas of CSR

| Value | MNL | RPL Econometric Estimations | | RPL Mean Shares of Preferences |
	Coefficient	Coefficient	Standard Deviation	
Labor	1.4219*** (.0299)	2.0963*** (0.0420)	0.9372*** (0.0404)	0.0868
Animal Welfare	1.5286*** (.0301)	2.1985*** (0.0497)	1.7226*** (0.0425)	0.0961
Health and safety	2.6928*** (.0297)	3.8062*** (0.0557)	2.0431*** (0.0495)	0.4798
Fair trade	.9205*** (.0282)	1.3459*** (0.040)	1.1539*** (0.0399)	0.0410
Biotechnology	.5497*** (.0265)	0.9122*** (0.0437)	1.6479*** (0.0411)	0.0266
Environment	1.8957*** (.0304)	2.7022*** (0.0527)	1.8312*** (0.0439)	0.1591
Community	1.4937*** (.0300)	2.2389*** (0.0476)	1.6852*** (0.0430)	0.1001
Procurement	0.00	0.00		0.0107

Statistical significance to the 1%***, 5%**, and 10%* levels.

The importance of a single CSR attribute (relative to the seven other CSR areas) can be determined from each CSR area's RPL preference share. Thus, interpretation of preference shares provides important insights. Furthermore, 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 the individual-specific preference shares of the prominent food and agricultural organizations.

Health and safety held the largest RPL mean preference share at nearly 48%. This was interpreted as health and safety was perceived to be the most important of the eight areas of CSR presented in this study. Lusk and Briggeman (2009) reported a similar finding. Safety rated on average as the "most important" attribute across 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. Animal

welfare and community were ranked closely, not significantly different from each other

in terms of relative importance, both at 10% each for their mean preference shares, and

labor had 9% mean preference share. In this survey 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%). Figure 4.1 shows these relative proportions.
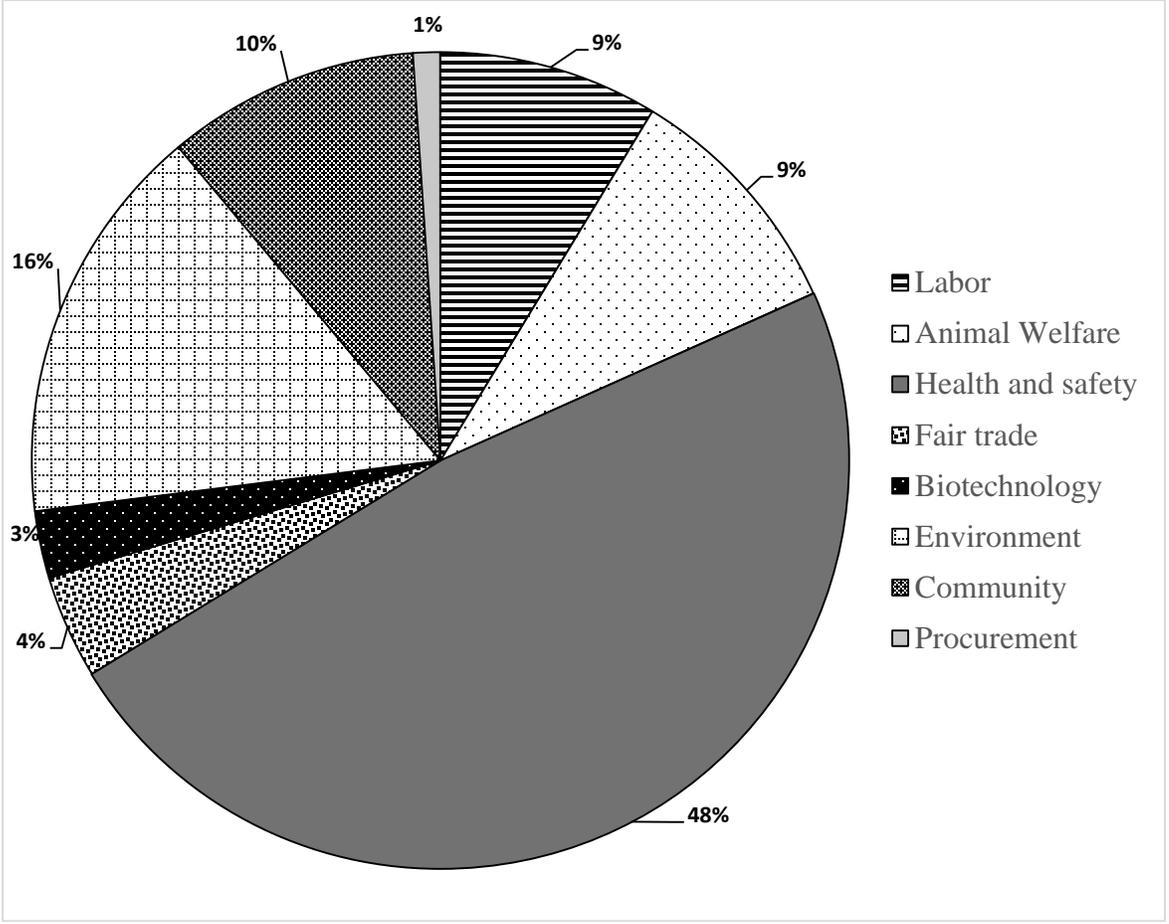
Figure 4.1 CSR Areas RPL Mean Preference Shares

4.2   <u>Relationships amongst Preference Shares for Areas of CSR</u>

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 4.2. Of the notable

relationships among individual-specific preference shares listed below, it can generally

be said that relationships positively correlated move together. The size of the correlation

coefficient indicates the magnitude of the relationship.

Correlations amongst individual-specific preference shares between the eight CSR

areas are presented in Table 4.2. The size of the individual-specific preference shares for

health and safety were negatively correlated with the sizes of preference shares for all

other areas of CSR. 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 share decreases, indicative of a tradeoff. In short,

this means that if a respondent highly preferred one area of CSR they had to sacrifice a

portion of their preference share in other areas.

Table 4.2 Correlations amongst Perceived Importance in Areas of CSR Preference Shares (n=1,201)

	Procurement	Labor	Animal welfare	Health and safety	Fair trade	Biotechnology	Environment	Community
Procurement								
Labor	0.5197***							
Animal welfare	0.0918***	0.0118						
Health and safety	-0.4319***	-0.3679***	-0.4086***					
Fair trade	0.6039***	0.3692***	0.0603**	-0.3599***				
Biotechnology	0.3476***	0.1750***	0.0172	-0.2680***	0.1773***			
Environment	-0.0338	-0.0833***	-0.1402***	-0.5188***	-0.0431	-0.0566**		
Community	0.1114***	0.0698**	-0.1013***	-0.3478***	0.0385	0.0031	-0.1692***	

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

The sizes of the individual-specific preference shares for environment were also negatively correlated with the sizes of individual-specific preference shares for all other areas of CSR. The strongest relationship with the sizes of individual-specific preference shares for environment is with the size of the individual-specific preference shares 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. This differs from other preference studies in which environmental attributes were among the lowest preferred attributes, whether of food values (Lusk and Briggeman, 2009), or as an area of CSR (Auger et al., 2007).

Recall, the levels of relative importance of animal welfare and community shared similar relationships with all other areas of CSR. Interestingly, results indicate the sizes of individual-specific preference shares for both animal welfare and community were positively correlated with the sizes of the individual-specific preference shares for procurement, labor, fair trade, and biotechnology. The sizes of the individual-specific preference shares for animal welfare and community were negatively correlated with the sizes of the individual-specific preference shares for health and safety, environment, and each other.

4.3   Relationships amongst Demographics and Preference Shares for CSR Areas

Among relationships between the CSR areas' individual-specific preference shares and demographic factors (Table 4.3), gender, age, and vegetarian/vegan dietary preferences were the strongest relationships. Reporting being female was correlated with the sizes of the individual-specific preference shares for all CSR areas, with the exception of the individual-specific preference shares for animal welfare, health and safety, and community. Being female was positively correlated with the sizes of the individual-specific preference shares for health and safety (+0.1342). There were no observable relationships between being female and the sizes of individual-specific preference shares for animal welfare or community.

However, there were observable significant relationships between age and perceived importance of most CSR areas. The strongest of those relationships were with the sizes of individual-specific preference shares for procurement, labor, health and safety, fair trade, and biotechnology. With respect to the importance (size of the individual-specific preference shares) placed on health and safety, there was a positive correlation with membership in the older age categories (45 to 64 years, and 65 years and older) and a negative correlation with reporting 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 individual-specific preference shares for) health and safety, whereas, a positively correlated relationship existed between being younger and the sizes of individual-specific preference shares given for procurement, labor, fair trade, and biotechnology; this relationship was negative with older age categories. The strongest relationship was with the youngest participants (18 to 24 years);

membership in this youngest age category was positively correlated with the size of preference share for procurement (+0.1623).

There was a notable relationship between the sizes of individual-specific preference shares for procurement and those participant households indicating having children; having children in the household was positively correlated with the sizes of the individual-specific preference shares for procurement (+0.1148). However, dietary choice, whether the participant or a member of their household was either vegetarian, showed a positive relationship with the sizes of individual-specific preference shares for procurement (+0.1656), fair trade (+0.1106), and biotechnology (+0.1189). Indicating vegetarian dietary preferences was negatively correlated with the sizes of the individual-specific preference shares for and health and safety (-0.0907). Similar relationships existed for participants indicating vegan dietary preferences as were seen for those indicating vegetarian preferences.

Table 4.3 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								
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
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	0.1656***	0.0449	0.0549*	-0.0907***	0.1106***	0.1189***	-0.0347	0.0487*
Vegan	0.1729***	0.0639**	0.0586**	-0.0811***	0.1298***	0.1418***	-0.0430	0.0098

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

4.4   Correlations amongst Preference Shares for CSR Areas and Food Retailer &

Supermarkets, Fast Food Restaurants, and Animal Welfare Groups

Results of the analysis between the individual-specific mean preference shares of

the eight prominent CSR areas and the individual-specific mean preference shares for

prominent food retailer/supermarkets, fast food restaurants, and animal welfare

organizations are presented in the following sections. This investigation seeks to provide

insight into the relationship between the sizes of individual-specific preference shares

(relative importance) for CSR areas and sizes of the individual-specific preference shares

(relative social responsibility) for each food corporation and animal welfare organization.

In this analysis the individual-specific preference shares for social responsibility in each

subsample (food retailers and supermarkets, n=299; fast food restaurants, n=302; animal

welfare groups, n=300) were correlated with the individual-specific preference shares for

perceived importance of prominent areas of CSR.

4.4.1   Food Retailers & Supermarkets and CSR Areas

Amongst relationships between (importance of) CSR areas and (social

responsibility of) food retailers and supermarkets, the sizes of the individual-specific

preference shares (perceived importance) for procurement and health and safety show

significant correlations with the sizes of individual-specific preference shares (perceived

social responsibility) for food retailer/supermarkets (Table 4.4). The size of the

individual-specific preference shares for procurement were positively correlated with the

sizes of the individual-specific preference shares for Costco, Kroger, Target,

Amazon.com, and Walmart. The sizes of the individual-specific preference shares for

procurement were negatively correlated with the sizes of the individual-specific

preference shares for Trader Joe's and Whole Foods.

Table 4.4 Correlations amongst Perceived Importance in Areas of CSR and Food Retailer & Supermarkets Social Responsibility Preference Shares (n=299)

	Procurement	Labor	Animal Welfare	Health and safety	Fair trade	Biotechnology	Environment	Community
Costco	0.1564***	0.1389**	0.0509	-0.1181**	0.1000*	0.2281***	-0.0489	0.0724
Kroger	0.1962***	0.0959*	0.1136**	-0.1341**	0.0785	0.0639	-0.0329	0.0889
Target	0.1241**	0.0245	0.1097*	0.0148	0.0546	0.0230	-0.1086*	-0.0215
Trader Joe's	-0.1496***	-0.0905	-0.0762	0.1308**	-0.1225**	-0.1315***	0.0471	-0.1100*
Whole Foods	-0.1906***	-0.0903	-0.1248***	0.0782	-0.0548	-0.0968*	0.0274	0.0315
Amazon.com	0.1858***	0.0764	0.1305**	-0.1285**	0.0641	0.0798	0.0266	-0.0120
Walmart	0.1968***	0.0896	0.1213	-0.1236**	0.1430***	0.0855	-0.0402	0.0468

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

The sizes of the individual-specific preference shares of health and safety were positively correlated with the sizes of the individual-specific preference shares for Trader Joe's. However, the sizes of the individual-specific preference shares for health and safety were negatively correlated with the sizes of the individual-specific preference shares for most food retailers and supermarkets, including the sizes of individual-specific preference shares for Costco, Kroger, Amazon.com, and Walmart. Interestingly, correlations amongst the size of the individual-specific preference shares for health and safety showed no relationship with the size of individual-specific preference shares for Target and Whole Foods.

4.4.2   Fast Food Restaurants and CSR Areas

Relationships between importance of CSR areas and relative social responsibility of fast food restaurants were estimated through correlation analysis and are presented in Table 4.5. The sizes of the individual-specific preference shares (perceived importance of) for procurement, labor, and health and safety were significantly correlated with the sizes of the individual-specific preference shares (perceived socially responsibility) for most of the fast food restaurants included in this study. The sizes of the individual-specific preference shares for procurement were positively correlated with the sizes of the individual-specific preference shares for Wendy's, Burger King, Taco Bell, Dunkin' Donuts, KFC, and McDonald's, and negatively correlated with the sizes of the individual-specific preference shares for Panera Bread. Similarly, the sizes of individual-specific preference shares for relative importance of labor was positively correlated with the sizes of the individual-specific preference shares for Burger King, Taco Bell, Dunkin' Donuts, KFC, and also Starbucks. The sizes of the individual-specific preference shares for fair trade were also positively correlated with the sizes of the individual-specific preference shares for Wendy's, Burger King, Taco Bell, Dunkin' Donuts, and McDonald's. The sizes of the individual-specific preference shares for health and safety were negatively correlated with the sizes of the individual-specific preference shares for Wendy's, Burger King, Taco Bell, Dunkin' Donuts, KFC, and McDonald's.

Table 4.5 Correlations amongst Perceived Importance in CSR Areas and Food Restaurant Social Responsibility Preference Shares (n=302)

	Procurement	Labor	Animal Welfare	Health and safety	Fair trade	Biotechnology	Environment	Community
Subway	-0.0518	-0.0637	-0.0522	0.0449	-0.0501	-0.0574	0.0187	0.0177
Panera Bread	-0.0991*	-0.0186	0.0472	0.0481	0.0153	-0.0762	-0.0146	-0.0766
Starbucks	-0.0388	0.0979*	-0.0462	-0.0194	-0.0726	-0.0433	0.0798	-0.0183
Wendy's	0.2439***	0.0835	0.0246	-0.1230**	0.1330**	0.0575	0.0111	0.0734
Burger King	0.2556***	0.1048*	0.0654	-0.1617***	0.1624***	0.0659	-0.0333	0.1422**
Taco Bell	0.2461***	0.1235**	0.0311	-0.1096*	0.1035*	0.0558	-0.0216	0.0741
Dunkin' Donuts	0.2615***	0.1175**	0.0383	-0.1330**	0.0961*	0.0428	0.0123	0.0822
KFC	0.2207***	0.1265**	0.0497	-0.1112*	0.0754	0.0530	-0.0195	0.0693
Chik-fil-A	-0.0314	-0.0684	0.0062	0.0551	-0.0180	0.0460	-0.0923	0.0233
Chipotle	-0.0808	-0.0712	-0.0344	0.0182	-0.0393	0.0517	0.0629	-0.0533
McDonald's	0.2526***	0.1192**	0.0405	-0.1138**	0.1016*	0.0569	-0.0185	0.0717

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

4.4.3   Animal Welfare Groups and CSR Areas

Significant relationships existed between the sizes of individual-specific preference shares for procurement, labor, fair trade, and biotechnology and with the sizes of individual-specific preference shares for most of the animal welfare groups included in this study (Table 4.6). The sizes of the individual-specific preference shares for procurement, labor, fair trade, and biotechnology were positively correlated with the sizes of individual-specific preference shares for Mercy for Animals, AVMA, Compassion Over Killing, AHA, and PETA. The sizes of the individual-specific preference shares for procurement, labor, fair trade, and biotechnology were all negatively correlated with the sizes of the individual-specific preference shares for ASPCA. The sizes of the individual-specific preference shares for health and safety were negatively correlated with the sizes of individual-specific preference shares of Mercy for Animals and Compassion Over Killing.

Animal welfare was of particular interest when investigating the relationship between relative importance of CSR areas with relative social responsibilities of prominent animal welfare organizations. Though these correlations yielded few significant results, the sizes of individual-specific preference shares (relative importance) of animal welfare were positively correlated with the sizes of individual-specific preference shares of Mercy for Animals, Compassion Over Killing, and PETA. These results indicate that for those respondents who believed animal welfare to be an important CSR area, also believed Mercy for Animals, Compassion Over Killing, and PETA to be socially responsible animal welfare organizations.

Table 4.6 Correlations in Perceived Importance of CSR Areas and Animal Welfare Group Social Responsibility Preference Shares (n=300)

	Procurement	Labor	Animal Welfare	Health and safety	Fair trade	Biotechnology	Environment	Community
Humane Society of the United States (HSUS)	0.0170	0.0128	-0.0853	0.0431	0.0201	-0.0128	-0.0380	0.0657
American Society for the Prevention of Cruelty to Animals (ASPCA)	-0.2651***	-0.1714***	-0.0265	0.0722	-0.2650***	-0.1659***	0.1338**	-0.0256
Mercy for Animals	0.2668***	0.1588***	0.1408**	-0.1117**	0.2723***	0.1611***	-0.1383**	-0.0250
American Veterinary Medical Association (AVMA)	0.1849***	0.0986*	-0.0112	-0.0363	0.1489***	0.1141**	-0.0534	-0.0064
Compassion Over Killing	0.1959***	0.1138**	0.1106*	-0.1074*	0.2029***	0.1661***	-0.0510	-0.0710
American Humane Association (AHA)	0.1466***	0.1380**	0.0402	-0.0725	0.1943***	0.1142**	-0.1186**	0.0628
People for the Ethical Treatment of Animals (PETA)	0.2470***	0.1763***	0.1233**	-0.0915	0.2489***	0.1309**	-0.1478***	-0.0158

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

CHAPTER 5. CONCLUSIONS

Food corporations in the U.S. are a necessary and prominent part of people's lives. This prominence makes corporations and organizations in the food sector, or even related to the food sector, particularly vulnerable to public criticism. Numerous campaigns and protests by concerned citizens and special interest and activist groups have pressured food businesses to adopt more socially conscious (or socially acceptable) practices. Governments often set standards and regulations that can help govern corporate practices. As well, many food corporations hedge against potential negative perceptions of their public image by initiating CSR activities which extend beyond those which may be required for compliance with regulations.

Researchers in marketing and economics have long been trying to better understand consumer perceptions of CSR. Maloni and Brown (2006) through their research efforts determined applications of CSR relevant to food businesses within the food supply chain. Auger et al. (2007) took a broad look at CSR, researching the relative importance of broad applications of CSR as perceived by people in different countries. This research sought to contribute to the understanding of the relative importance placed on CSR areas prominent in U.S. food and agriculture, and also to investigate the relationship between preference for CSR areas and perceived social responsibility in prominent food corporations and animal welfare groups.

Notably, health and safety was the rated highest in importance (give its mean RPL preference share estimate) relative to all other areas of CSR. This is consistent with past findings such as that of Lusk and Briggeman (2009) who found food safety to be perceived as the "most important" food value. Furthermore, respondents consistently made the tradeoff for health and safety over all other areas of CSR presented in this study. Secondly, 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.

Clear relationships are seen amongst perceived importance of CSR areas and perceived responsibility of food retailers and supermarkets, fast food restaurants, and animal. Among food corporations and groups that were generally perceived as relatively socially responsible (Trader Joe's, Whole Foods, Panera Bread, Subway, ASPCA) the sizes of their individual-specific preference shares were also most often positively correlated with perceived importance of health and safety, and negatively correlated with perceived importance of procurement. These results indicate that there is an observable relationship in peoples' perceptions of social responsibility in food businesses and perceived importance in prominent areas of CSR. The findings of these relationships are relevant for food corporations and should be taken into consideration when evaluating the responsible nature of business practices.

Limitations of this study include an accurate understanding of consumers' definitional interpretations of CSR areas. It is unclear what exactly consumers think when terms like "health and safety" or "procurement" are used. When investigating

relative importance, peoples' subjective opinions are expected to generally influence their perceptions. Past studies have revealed that because of people's differing perceptions of CSR areas, there is overlap in people's understanding of the different applications. For example, "procurement" within the food industry as sustainable food procurement, which often implies local sourcing, organic, environmental attributes, animal treatment, and/or other. If this is the case for any given respondent, several prominent applications of CSR are then implied. Further studies could examine to what extent definitional overlap exists in order to observe the relationships between understanding and perceptions. Additionally, future studies could build on this research by investigating consumer perceptions of CSR areas as they pertain to a specific industry. For example, a future study could investigate perceived importance of CSR areas amongst regular customers of named food retailers.

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