Fall 2014

Consumers' Perceptions Towards Sustainability: A Cross-Cultural Analysis

Mertcan Tascioglu
Georgia Southern University

Follow this and additional works at: https://digitalcommons.georgiasouthern.edu/etd

Part of the Business Law, Public Responsibility, and Ethics Commons, Marketing Commons, and the Operations and Supply Chain Management Commons

Recommended Citation
https://digitalcommons.georgiasouthern.edu/etd/1169

This dissertation (open access) is brought to you for free and open access by the COGS- Jack N. Averitt College of Graduate Studies at Digital Commons@Georgia Southern. It has been accepted for inclusion in Electronic Theses & Dissertations by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.
CONSUMERS’ PERCEPTIONS TOWARDS SUSTAINABILITY: A CROSS-CULTURAL ANALYSIS

by

MERTCAN TASCIOGLU

(Under the Direction of Jacqueline K. Eastman)

ABSTRACT

Sustainability has become a subject of increasing concern to academics and practitioners in recent years. Increasing consumer demand for socially responsible products encouraged supply chains to put increasing emphasis on sustainability. In adapting sustainability practices consumers play a very important role for supply chains. Thus this dissertation examines consumers’ perceptions towards sustainability practices. Although most previous research has examined environmental sustainability practices, the social dimension of sustainability has received little attention. This dissertation attempts to explore both environmental and social sustainability and their effects on consumer perceptions in different cultural contexts and price levels. Two scenario based experiments are utilized. Experiment One examines the effect of environmental sustainability practices on consumer behavior. Experiment Two examines the effect of social sustainability practices on consumer behavior. Data was collected from one individual and one collectivist country to explore if there was a culture effect. Social Exchange Theory (SET) is presented as the theoretical lens for this dissertation. Theory of Reasoned Action (TRA) is also discussed as a supporting theory. The findings suggest that high environmental sustainability or social sustainability and a low price strategy will lead to an increase in consumers’
commitment, satisfaction, and loyalty levels. The results also showed that high prices have a more negative effect on consumer satisfaction and consumer loyalty in collectivist countries.

INDEX WORDS: Sustainability, Sustainable supply chain, Social Exchange Theory, Theory of Reasoned Action, Consumer behavior, Environmental sustainability, Social sustainability, Individualism, Collectivism
CONSUMERS’ PERCEPTIONS TOWARDS SUSTAINABILITY: A CROSS-CULTURAL ANALYSIS

by

MERTCAN TASCIOGLU

B.B.A., Sakarya University, Turkey, 2007
M.B.A., Cleveland State University, 2011

A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in
Partial Fulfillment of the Requirements for the Degree
DOCTOR OF PHILOSOPHY
STATESBORO, GEORGIA
2014
CONSUMERS’ PERCEPTIONS TOWARDS SUSTAINABILITY: A CROSS-CULTURAL ANALYSIS

by

MERTCAN TASCI OGLU

Dissertation Committee Chair: Jacqueline K. Eastman
Dissertation Committee Members: Dora E. Bock
Karl B. Manrodt
C. David Shepherd

Electronic Version Approved:
December 2014
DEDICATION

To my family and its new member Merve
ACKNOWLEDGEMENTS

I would like to thank my dissertation committee members Dr. Jacqueline Eastman, Dr. Dora Bock, Dr. Karl Manrodt, and Dr. David Shepherd for believing in me and generously sharing their time and expertise with me. I would like to express my special thanks to my committee chair Dr. Jacqueline Eastman. Thank you for standing by me and pushing me to do what I needed to do. I would not have succeeded without your help and guidance. I will be forever grateful. I would like to give a special thanks to Dr. Karl Manrodt who gave me irreplaceable motivation. I would also like to thank Dr. Rodney Thomas for his constant support throughout this process.

I would like to recognize my colleagues Dion, Steve, Heather, Jessica, Willis, and Cesar who shared ups and downs of the PhD program with me. Thank you for all the wonderful memories that I will cherish forever. I would like to thank the first cohort for their help and advice. I would also like to thank all my friends. I am so very thankful to have had such an amazing support group behind me during this journey.

To Taşcioğlu family, my father Gürcan, my mother Yıldız, and my brother Alican you have been my biggest supporters throughout this process. I could not have made it through this challenging experience without your help and support.

Lastly, to my fiancée Merve, you are such an amazing, thoughtful, kind-hearted, caring, and the most patient lady. I truly feel blessed to have you in my life. Thank you for everything. I can’t wait to start our new life together.
# TABLE OF CONTENTS

ACKNOWLEDGEMENTS .............................................................................................................. 7

LIST OF TABLES ...................................................................................................................... 11

LIST OF FIGURES .................................................................................................................... 12

CHAPTER

1 INTRODUCTION .................................................................................................................. 13

   Research Questions and Objectives ............................................................................ 20

   Research Approach ....................................................................................................... 21

   Contributions of This Research .................................................................................... 21

   Organization of the Dissertation .................................................................................... 23

2 LITERATURE REVIEW ....................................................................................................... 24

   Theoretical Foundation ................................................................................................. 24

   Sustainability Research in Supply Chain Context ....................................................... 30

   Consumers and Sustainable Supply Chain Management ............................................ 35

   Environmental Sustainability ....................................................................................... 37

   Social Sustainability ...................................................................................................... 38

   Consumer Behavior ...................................................................................................... 42

   Sustainability and Culture ............................................................................................ 50

   The Effects of Price ........................................................................................................ 55

   Chapter Two Summary ................................................................................................. 60

3 METHODOLOGY .................................................................................................................. 61

   Experimental Studies .................................................................................................... 61

   Sample ........................................................................................................................... 62
B. Experiment One Directions and Scenarios .......................................................... 141
C. Experiment Two Directions and Scenarios ......................................................... 142
D. Experiment One and Two Dependent and Manipulation Check Variables ........ 143
LIST OF TABLES

Table 1. Sustainability Definitions ................................................................................. 31
Table 2. Social Performance Indicators/Aspects ........................................................... 41
Table 3. Sample Characteristics ................................................................................... 69
Table 4. Factor Loadings, Means, Standard Deviations, and Coefficient α............... 71
Table 5. Average Variance Extracted............................................................................ 73
Table 6. Factor Loadings, Means, Standard Deviations, and Coefficient α............. 74
Table 7. Culture Means, Standard Deviations, and Significance Levels ..................... 74
Table 8. Experiment One Manipulation Items Means, Standard Deviations............ 75
Table 9. Experiment Two Manipulation Items Means, Standard Deviations............. 76
Table 10. Univariate Results for Main and Interaction Effects – First Experiment ...... 77
Table 11. Dependent Variable Cell Means For the First Experiment ......................... 78
Table 12. Univariate Results for Main and Interaction Effects – Second Experiment.... 79
Table 13. Dependent Variable Cell Means For the Second Experiment ...................... 82
Table 14. Summary of Outcomes for Hypotheses ......................................................... 83
Table 15. Research Contributions................................................................................. 97
LIST OF FIGURES

Figure 1. Two-way Interaction of Social Sustainability and Culture ........................................ 81
Figure 2. Two-way Interaction of Environmental Sustainability and Price ............................... 87
Figure 3. Two-way Interaction of Culture and Price .................................................................. 89
Figure 4. Two-way Interaction of Social Sustainability and Price .............................................. 90
Figure 5. Two-way Interaction of Culture and Price .................................................................. 92
CHAPTER 1
INTRODUCTION

Sustainability is an important issue in the business world today. Over the last decade, it has received considerable attention from both academics and practitioners. Large corporations are increasingly expected to be more transparent about their social and environmental activities and to publish sustainability reports (Waddock 2008). Ninety-five percent of the 250 largest companies in the world (Global Fortune 250 companies) report their corporate responsibility activities and sixty-two percent of these G250 companies offer sustainable products (KPMG 2011). Many companies realize the impact of sustainability on their competitive position. It is in many ways a license to do business in the twenty-first century, instead of a prominent temporary concept (Carter and Easton 2011).

The most popular and widely known sustainability definition is that of the United Nations sponsored Brundtland report (1987). It defines sustainability as meeting the needs of the present without jeopardizing the requirements of future generations to meet their own needs (Brundtland 1987). According to the CSCMP (Council of Supply Chain Management Professionals 2013, p.191): “Corporate sustainability refers to efforts a company makes related to conducting business in a socially and environmentally responsible manner. It contains elements including sustainable development, corporate social responsibility (CSR), stakeholder concerns, and corporate accountability.” The most prevalent sustainability concept is the “Triple Bottom Line” (Elkington 1997) which depicts sustainability as the intersection of...
environmental, social, and economic objectives of the company. In this research, the focus is on the environmental and social aspects of the sustainability.

Companies are increasingly reporting details on their environmental performance and see sustainability practices as core to the ability of the business to grow. Integrating sustainability practices into business operations and strategy has became an opportunity for the organizations (Porter and Reinhardt 2007; Dangelico and Pujari 2010). For example, Wal-Mart’s sustainability report addresses environmental sustainability issues across the supply chain, including supplier management, packaging reduction, development of environmentally friendly packaging, and product design (Tate, Ellram, and Kirchoff 2010). The Vice President of Unilever, Santiago Gowland, stated that companies need to treat sustainability as a key business activity in the same way that they treat marketing, finance, culture, HR or supply chain, to continue growing and being a successful business (Haanaes, Balagopal, Kong, Velken, Arthur, Hopkins, and Kruschwitz 2011). Cisco, HP, Gap, GE, Interface, Nike, and Wal-Mart are well-known leaders in environmental sustainability (Sheth et al. 2011). These companies pursue various environmental sustainability activities. These include creating partnerships with environmental non-governmental organizations (NGOs) (e.g., Johnson & Johnson and Ford), donating to educational initiatives to promote environmental awareness (e.g., Disney, Walgreen), and supporting initiatives for ecological preservation (e.g. Samsung) (Jose and Lee 2007). In short, environmentally sustainable companies preserve natural resources, minimize waste, and reduce emissions (Krause, Vachon, and Klassen 2009).
The existing literature has discussed environmental sustainability issues such as energy consumption (Van Hoek and Johnson 2010; Ingarao, Ambrogio, Gagliardi, and Di Lorenzo 2012), water usage issues within supply chains (Reich-Weiser and Dornfeld 2009; Aviso, Tan, Culaba, and Cruz 2011), and material usage and selection (Mayyas, Qattawi, Mayyas, and Omar 2013; Lindahl, Robèrt, Ny, and Broman 2014). Although most previous research has examined environmental sustainability practices, the social dimension of sustainability has received little attention (Pagell and Wu 2009; Pfeffer 2010; Wolf and Seuring 2010). Many authors call for future research to examine social sustainability (Pullman, Maloni, and Carter 2009; Sarkis, Helms, and Hervani 2010). While environmental sustainability emphasizes the management of environmental effect, social sustainability is concerned with the management of social effect, including employees’ working conditions, relationships with communities and social values (Sarkis et al. 2010). For example Wal-Mart implemented social sustainability practices in its global operations. The company helped mentally ill children in India, found homes for abandoned children in America, built schools after an earthquake in China and rebuilt homes and drinking water facilities in Africa and the Middle East (Cavusgil and Cavusgil 2012). Ben and Jerry’s, Body Shop, Starbucks and Timberland are among the companies that have made both environmental and social sustainability central to their strategy (Mirvis and Googins 2006; Sheth, Sethia, and Srinivas 2011). In short, socially sustainable companies add value to the communities within which they operate by increasing the human capital of individual partners as well as furthering the societal capital of these communities (Dyllick and Hockerts 2002).
Sustainability programs are playing an increasingly important role in planning and management within companies and across supply chains. Linton, Klassen, and Jayaraman (2007) provided a background in the increasing role of sustainability in supply chains. Srivastava (2007) reviewed the literature on green supply chain management and emphasized the importance of this new concept. Similarly Golicic and Smith (2013) examined over 20 years of research on environmentally friendly supply chain practices by conducting a meta-analysis and found a positive and significant relationship between these practices and firm performance. Development of sustainable products and services requires a joint effort by all members of the supply chain (Vasileiou and Morris 2006). Therefore, sustainability is more of a supply chain issue than an organizational level matter (Vasileiou and Morris 2006; Vachon and Klassen 2007; Green, Zelbst, Meacham, and Bhaduria 2012). Although the supply chain management field focuses on cost, quality, delivery, flexibility and innovation as main sources of competitive advantage (Krause, Pagell, and Curkovic 2001), social and environmental sustainability are becoming additional drivers for competitiveness (Pullman et al. 2009; Ashby, Leat, and Hudson-Smith 2012). It has been recognized that promoting sustainability is a key differentiator in the supply chain versus supply chain competition (Tracey 2004).

The goal of a supply chain is to increase consumer value (Bowersox, Closs, and Stank 2000). All members of the supply chain are suppliers to the consumer. Understanding and meeting consumer demand is the focus of the entire supply chain (Fearne 1996, Cooper, Lambert, and Pagh 1997). Thus, in adapting sustainability practices consumers play a very important role for supply chains. Today, consumers are
beginning to seek environmentally friendly choices in their shopping. Consumers are demanding environmentally friendly products and services and considering a company’s environmental record when involving in exchange relationships (Lash and Wellington 2007; Tate et al. 2010). It has been reported that there is an increasing demand from consumers for environmentally sustainable products and services. Unruh and Ettenson (2010) provided a framework for managers to develop sustainable products in order to meet the demand. Erol, Velioglu, Serifoğlu, Büyüközkan, Aras, Cakar, and Korugan (2010) emphasized growing consumer pressure for environmentally friendly operations and presented the need for supply chains to expand capabilities on reverse material flows. Green et al. (2012) revealed that organizations need to work with suppliers and customers to improve environmental sustainability of the supply chain and found that adoption of green practices improves environmental, economic, and operational performance. In addition to emerging environmental sustainability matters, there is a growing concern from consumers about social sustainability. Consumers are more sensitive to social sustainability issues such as child labor, fair wages, and working conditions and prefer forms that are socially responsible (Gould 2003; Branco and Rodriguez 2006; Closs et al. 2011). Even though social sustainability is an important topic for global supply chains, it has been an overlooked area of research (Pagell and Wu 2009; Pfeffer 2010; Wolf and Seuring 2010). This research will explore consumers’ perceptions of both environmental and social sustainability practices.

Sustainability practices may increase operation costs. Even for multi-national companies, sustainability practices may not be in alignment with cost savings (Pullman et al. 2009). In many cases, sustainability efforts have inevitable trade-offs and may
increase costs (Devinney 2009). As a result, companies often charge higher prices for sustainable products or services (Kang and James 2007; Husted, Russo, Meza, and Tilleman 2013). There is an increasing willingness among consumers to buy sustainable products; however, consumers frequently prioritize price over sustainability practices. Barone, Miyazaki, and Taylor (2000) examined consumers’ perceptions of a company’s motivation to support sustainability practices and found that consumers choose negatively-motivated or neutral companies if the price of the positively-motivated company’s product is high. Horne (2009) reviewed eco-labels and their role in consumers’ consumptions and emphasized that even though there is willingness to buy environmentally friendly products, price is still an issue for consumers. Gleim, Smith, Andrews, and Cronin (2013) explored barriers that affect consumers’ evaluations of the environmentally friendly products and found that price is the main barrier for consumers, with all other factors (such as quality, expertise, and trust) being significantly less detrimental. Most of the consumers are not willing to pay a price premium for the sake of sustainability despite their positive stance on sustainability issues (Johri and Sahasakmontri 1998). This research investigates the moderating effect of price on the relationship shared between sustainability and consumer behavior.

Culture is an important and distinctive factor of consumer behavior. Consumers’ expectations and perceptions of sustainability practices may vary based on cultural differences. In order to have an understanding of cross-cultural consumer behavior, the difference between individualistic and collectivist cultures should be emphasized (Maheswaran and Shavitt 2000). In today’s global business, it is indispensable for companies to know whether sustainability practices are perceived in the same manner
in different cultures (Maignan 2001). Previous studies found a strong influence of culture on consumer behavior. Chan (2001) stated that collectivism exerts a significantly positive influence on attitudes toward green purchases. McCarty and Shrum (2001) revealed that collectivist consumers consider recycling more important compared to individualist consumers. Parboteeah et al. (2012) found that collectivism is positively related to individuals’ propensity to support sustainability initiatives. As such, one main objective of this study is to explore the effect of cultural differences on consumer behavior.

The social exchange concept (Blau 1964) and the norm of reciprocity (Gouldner 1960) have been used in sustainability literature to explain the social relationship between customers and companies where customers reciprocate a positive gain by giving positive feedback to the company (Lii and Lee 2012). The basic assumption of Social Exchange Theory (SET) is that individuals engage in an exchange relationship when they receive a social benefit from other parties (Blau 1964). The basic motivation for interaction is minimizing the costs and maximizing the rewards (Emerson 1976). When one party provides something valuable to the other party, that party feels obligated which triggers reciprocal behavior. The norm of reciprocity proposes that individuals return favors to those who do something good for them in an exchange relationship (Gouldner 1960). In this study, SET is applied to propose that sustainability practices of a retailer influence consumers’ purchase intention, commitment, satisfaction and loyalty. As SET proposes, parties remain in an exchange relationship as long as they perceive the relationship to be rewarding (Emerson 1976). When a retailer meets the expectations of the consumers, the retailer expects reciprocal benefits, which can
be in the form of consumer commitment, satisfaction, loyalty, and purchase intention. As long as the retailer meets the expectation, consumers feel obligated to reciprocate (Gouldner 1960).

The Theory of Reasoned Action (TRA) also provides a strong theoretical basis for studying sustainability intentions. TRA has two main components: the attitude toward the behavior and subjective norm (Ajzen and Fishbein 1973). Attitude toward the behavior refers to an individual’s positive or negative feeling for that behavior and subjective norm refers to an individual’s perception of the social pressure to perform or not to perform the behavior (Ajzen and Fishbein 1980). As TRA suggests, consumers’ sustainability intentions are based on their positive or negative evaluation of the behavior of buying sustainable products, given the product price and consumers’ beliefs about whether they feel obligated to purchase sustainable products given social pressure.

Research Questions and Objectives

This dissertation attempts to explore sustainability and its effects on customer perceptions in different cultural contexts and at different price levels. The current research examines the following questions:

1. What is the effect of environmental sustainability on consumer behavior in different cultural contexts and at different price levels?
2. What is the effect of social sustainability on consumer behavior in different cultural contexts and at different price levels?
Research Approach

Experimental methods have become a dominant method for studying consumers (Belk 2009). However, experimental methodology is one of the most underdeveloped areas in supply chain management research (Waller and Fawcett 2011). This study examines the link between sustainability practices and consumer behavior with two experiments. Behavioral experiments will allow testing of the social exchange theory, and will enable the examination of a cause-and-effect relationship (Thomas 2011) between sustainability practices and consumer behavior. The first experiment examines the effects of environmental sustainability and the second experiment examines the effects of social sustainability on consumer behavior.

Contributions of This Research

The exploration of the effects of sustainability on consumers’ behavior makes several contributions to the body of knowledge. First, this study provides a greater understanding of consumer behavior as part of supply chain. The outcome of this study provides a better understanding of consumer commitment, satisfaction, loyalty, and purchase intention, which is a neglected area of research in the supply chain literature. Another contribution is that this study offers additional support to the individual level exchange relationship analysis. In the supply chain literature, previous studies mainly focused on business-to-business (B2B) relationships, and tended to see the consumers as a “black box” (Bask, Halme, Kallio, and Kuula 2013). There are future research calls to examine consumers’ perceptions in a supply chain context (e.g. Atasu, Guide, and
Van Wassenhove 2008; Giunipero et al. 2008). This study contributes to the body of knowledge by examining the exchange relationship between a retailer and consumers.

Second, this study provides better understanding of a neglected dimension of sustainability. Although most previous research has examined environmental sustainability practices, the social dimension of sustainability has received little attention (Pagell and Wu 2009; Pfeffer 2010; Wolf and Seuring 2010). Some previous studies examined the effect of socially responsible practices, but few presented the effects on consumer perceptions. Moreover, most studies completely ignored the price part of social sustainability. Many authors call for future research to examine social sustainability (e.g. Pullman et al. 2009; Sarkis et al. 2010). This research bridges this gap by introducing price as a moderator and by presenting the influence of social sustainability on consumer behavior.

The third contribution of this research is the examination of cultural contexts. There are numerous research calls to explore the effect of different cultures in supply chain context (e.g. Chang, Chen, and Polsa 2003; Whitfield and Landeros 2006; Arlbjorn and Paulraj 2013). Even though previous studies addressed the importance of culture on customer behavior, many of them conducted studies in just individualist cultures. This research addresses this gap and allows the researchers to gain an understanding of individualist and collectivist culture differences.

Fourth, this research highlights the importance of price in individualist and collectivist cultures. Companies need to formulate contingent strategies based on the cultural contexts of the countries in which they operate. The main challenge for managers is to balance concerns for demand for sustainability with the cost of
sustainability practices. If customers are not willing to pay a higher price for sustainable products, managers need to reconsider implementing costly sustainability practices.

Last but not least, experimental methodology is one of the most underdeveloped areas in the field of supply chain management (Tokar 2010; Waller and Fawcett 2011). There are calls by other researchers for more behavioral experiments (Eckerd and Bendoly 2011; Thomas 2011; Deck and Smith 2013). This research answers calls for experiments with human subjects and theory testing in the supply chain field by conducting two experiments.

Organization of the Dissertation

This dissertation is organized into five chapters. Chapter One introduces the research questions and objectives, research approach, and contribution of this research. Chapter Two provides a comprehensive literature review, theoretical model and hypotheses. Chapter Three describes the methodology by presenting two scenario-based behavioral experiments as well as the sampling, data collection, and data analysis techniques. Chapter Four reviews the results of the experiments. Finally Chapter Five provides a discussion of the research and its managerial implications, limitations of the study and future research opportunities.
CHAPTER 2
LITERATURE REVIEW

This chapter reviews and synthesizes the applicable literature and the theory to develop testable hypotheses. First, Social Exchange Theory (SET) is presented as the theoretical lens for this dissertation. Theory of Reasoned Action (TRA) is also discussed as a supporting theory. Second, sustainability is discussed, specifically in the context of the supply chain and its influence on consumers as a part of the supply chain. Third, environmental and social aspects of sustainability and their effects on consumer behavior are examined.Fourth, the impact of cultural differences and price on consumers’ actions is discussed. Finally, based on the literature, the research hypotheses are developed and illustrated within the theoretical model.

Theoretical Foundation

Social Exchange Theory

This dissertation adopts a Social Exchange Theory (SET) perspective (Thibaut and Kelley 1959) in examining consumers’ perceptions towards sustainability practices. In 1959, Thibaut and Kelley proposed a theory of interpersonal relations and group functioning, in which interpersonal relationships were the primary concern. That study along with other related works of that period, has come to be known as SET (Homans 1958; Blau 1964; Kelley and Thibaut 1978; Anderson and Narus 1984). The basic assumption of SET is that individuals engage in an exchange relationship when they receive a social benefit from other parties (Blau 1964). As the theory suggests, the
behaviors of parties cannot be explained only through economic gains in an exchange relationship (Atuahene-Gima and Li 2002). In a business-to-consumer relationship, consumers seek to gain benefits from products that go beyond the basic economic ones. For example, consumers perceive purchase and use of products as a way of expressing themselves (Sirgy 1985). Consumer may conspicuously consume green products to display environmentally friendly attitudes (Hartman and Ibanez 2012). Similarly, products, as symbols can trigger social behavior (Solomon 1983). For this reason, many companies focus on social rewards in their promotional campaigns (Arnett, German, and Hunt 2003).

The most common norm of Social Exchange Theory is reciprocity (Gouldner 1960). Reciprocity has been described as a repayment in kind and explains behaviors when groups seek to maximize net reward interactions (Cropanzano and Mitchell 2005; Griffith, Harvey, and Lusch 2006). Reciprocity contributes to developing long-term business-to-consumer relationships. Agustin and Singh (2005) showed how reciprocity contributed to consumer loyalty. Beltramini (2000) presented the effect of reciprocal behaviors on satisfaction and purchase intent. Sung and Choi (2010) examined the dynamics of consumer–brand relationships and emphasized the importance of the reciprocity principle in consumer commitment and loyalty to a brand. Wu, Chan, and Lau (2008) found that the reciprocity mechanism has a positive effect on consumers’ purchase intentions.

In the supply chain literature, Social Exchange Theory has been used to explain the exchange relationship between a customer and supplier. Morris and Carter (2005) explored the variables that improve supplier logistics performance. Wagner, Coley, and

Consumers’ perceptions of firms’ sustainability practices impact their purchase behavior. The extraordinary amount of research on sustainability has confirmed that consumers would like to buy sustainable products (e.g. Sen and Bhattacharya 2001; Lichtenstein, Drumwright, and Braig 2004; Kim and Choi 2005; Mohr and Webb 2005; Stall-Meadows and Hebert 2011). Research has also shown that consumers who are
satisfied with the company’s products and services tend to purchase from a sustainable company (Mohr, Webb, and Harris 2001). For example, suppliers that have reputations for positive environmental and social behaviors will be “rewarded” by customers with greater purchase intentions (Creyer and Ross 1997). Per SET, purchase behaviors are based on evaluating the anticipated rewards and the associated sacrifices (Homans 1958). Consumers will continue to commit themselves and purchase from the company when they are content with the practices of the company.

Negative sustainability efforts have been shown to lower consumer commitment to the company, while positive sustainability practices have been shown to enhance the consumer commitment (Ngo, West, and Calkins 2009; Lacey and Kennet-Hensel 2010). In the latter case, consumers are expected to reward the company with a high level of commitment (Gupta and Pirsch 2008). This case can also be referred as the expectation of reciprocity. Sustainable practices directed at the market create a reason for consumers to reciprocate with their attitudes and their behaviors. In an exchange relationship, when consumers experience sustainability practices from a company, they are not constrained to stay in this relationship; however, they stick with it because they believe they should reward the company (Gouldner 1960; Udorn, Bloom, and Zeithaml 1998). The reason consumers are more satisfied with sustainable companies is that consumers believe they are contributing to an environmental cause(s) and social welfare by involving in an exchange relationship with the sustainable company (Rios, Martinez, Moreno, and Soriano 2006). The basic assumption of SET is that parties engage in and maintain relationships with the expectation of rewarding social benefits
Thus, customers will remain in a relationship as long as they think the relationship is satisfactory.

In an exchange relationship, companies will be rewarded with higher levels of customer loyalty by adopting sustainability practices (Pirsch, Gupta, and Grau 2007). As SET argues a company should achieve higher benefits by implementing sustainability practices. Sustainable products and services received by the consumers will increase the likelihood of a consumer’s willingness to maintain and to expand the existing relationship (Lambe, Wittmann, and Spekman 2001).

According to SET, companies maintain the relationship with the expectation that doing so will be rewarding (Thibaut and Kelley 1959). In an exchange relationship, the consumer is expected to buy environmentally friendly products at the lowest possible price (Goebel, Moeller, and Pibernik 2012), which is rewarding for the consumer. On the other hand, a lack of reward likely results in decreased purchase intention, commitment, satisfaction, and loyalty levels.

Gouldner (1960) suggested that the norm of social exchange relationships might be a universally accepted principle, but the degree to which people and cultures apply social exchange relationship principles varies (Cropanzano and Mitchell 2005). Researchers have documented how the dynamics of social exchange and reciprocity differ across cultures (e.g. Chan 2001; McCarty and Shrum 2001; Becker-Olsen, Taylor, Hill, and Yalcinkaya 2011; Robinson, Irmak, and Jayachandran 2012; Parboteeah et al. 2012). In this dissertation, the social exchange processes in collectivist and individualist cultures will be explored to enhance our understanding of the application of social exchange principles in different cultures.
The Theory of Reasoned Action (TRA) also provides a strong theoretical basis for studying sustainability intentions. TRA has two main components: the attitude toward the behavior and subjective norm (Ajzen and Fishbein 1973). TRA suggests that specific behaviors are predictable from specific behavioral intentions, and these intentions are in turn a function of two components: the attitude toward the behavior and the perceived normative expectations of reference groups, which is also known as subjective norm (Ajzen and Fishbein 1973). Attitude toward the behavior is defined as “a person’s general feeling of favorableness or unfavorableness for that behavior” (Ajzen and Fishbein 1980, p.54). Subjective norm is defined as “a person’s perception that most people who are important to him think he should or should not perform the behavior in question” (Ajzen and Fishbein 1980, p.57).

Many researchers used TRA in the examination of the factors affecting consumer behavior. Growing interest in environmentally and socially responsible attitudes as predictors of consumer behaviors and purchase decisions has led researchers to build on TRA. Bagozzi and Dabholkar (1994) explained recycling behavior and investigated determinants of attitudes and subjective norms related to recycling. Alwitt and Pitts (1996) presented the effects of general environmental concern on consumer purchase intention of environmentally related products. Follows and Jobber (2000) developed an environmentally responsible purchase behavior model. Bang, Ellinger, Hadjimarcou, and Traichal (2000) explored the relationship between environmental knowledge and consumers’ willingness to pay a premium for sustainable products. Budeanu (2007) investigated the interaction between the reasons for consumers’ choice of products and
services and environmental motivations. Baker and Ozaki (2008) explored the relationship between consumers’ perceptions of green products’ performance and their pro-environmental beliefs. This dissertation draws on TRA in the examination of how culture and price affects consumer behavior and purchase intention. As the theory argues, consumers’ behavior and purchase intention are based on consumers’ sensitivity to price and consumers’ cultural environment.

Sustainability Research in Supply Chain Context

The term “sustainability” has been defined in journals from various technical fields, such as environmental science, management and social science (Linton et al. 2007). Even though there are some common descriptions of sustainability in the literature, the concept is fairly new and there exists a divergence of definitions of sustainability in existing research (Carter and Rogers 2008; Winter and Knemeyer 2013). A list of common definitions is displayed in Table 1.
Table 1: Sustainability Definitions

<table>
<thead>
<tr>
<th>Sustainability Definition</th>
<th>Author(s)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting the needs of the present without compromising the ability of future generations to meet their own needs</td>
<td>Brundtland (1987)</td>
<td>World Commission on Environment and Development</td>
</tr>
<tr>
<td>Any state of a business in which it meets the needs of its stakeholders without compromising its ability also to meet their needs in the future</td>
<td>Hockerts (1999)</td>
<td>Greener Management International</td>
</tr>
<tr>
<td>Consumption of natural resources at a rate that can be naturally replenished and the emissions of waste at a rate that can be absorbed by nature</td>
<td>Dyllick and Hockerts (2002)</td>
<td>Business Strategy and the Environment</td>
</tr>
<tr>
<td>The possibility that all forms of life will flourish forever</td>
<td>Ehrenfeld (2005)</td>
<td>Sloan Management Review</td>
</tr>
<tr>
<td>Activities that attempt to improve the environmental performance of purchased inputs, or of the suppliers that provide them</td>
<td>Walker, Di Sisto and McBain (2008)</td>
<td>Journal of Purchasing and Supply Management</td>
</tr>
<tr>
<td>Performing well on not only traditional measures of profit but also in social and natural dimensions</td>
<td>Pagell and Wu (2009)</td>
<td>Journal of Supply Chain Management</td>
</tr>
<tr>
<td>An effort to conserve natural resources and avoid waste in operations</td>
<td>Pfeffer (2010)</td>
<td>The Academy of Management Perspectives</td>
</tr>
<tr>
<td>Intersection of economic, environmental and societal superiority</td>
<td>Paulraj (2011)</td>
<td>Journal of Supply Chain Management</td>
</tr>
</tbody>
</table>
The most commonly accepted definition of sustainability is: “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland 1987). Many of the definitions are derived from the “Triple Bottom Line” (Elkington 1997) concept. “Triple Bottom Line” is the most prevalent concept in the literature which considers sustainability at the intersection of economic, social, and environmental goals of a firm. The economic dimension addresses that economic needs of the stakeholders (customers, employees, suppliers, investors, etc.) are met effectively and efficiently, the social aspect is concerned with human rights and employees’ health and safety, and the environmental facet assures waste minimization, emission reduction and protection of natural resource depletion (Bansal and McKnight 2009; Krause et al. 2009). Triple Bottom Line is also generally called: People, Profit and Planet (3Ps). The intersection of these three dimensions depicts the core of sustainability.

The adoption and development of sustainability moved from a specific organization to the entire supply chain (Tracey 2004; Linton et al. 2007) and sustainability is playing an increasingly crucial role in designing and managing supply chains (Kleindorfer, Singhal, and Van Wassenhove 2005; Srivastava 2007; Golicic and Smith 2013). Considerable amounts of research have investigated sustainability issues in the supply chain context. Early studies focused on socially responsible buying and environmentally friendly purchasing. Drumwright (1994) explored why socially responsible buying behavior with respect to the environment takes place in organizations. Min and Galle (1997) examined the effect of environmental partnerships in supplier selection decisions. Similarly Noci (1997) provided a framework for the
supplier selection procedure from an environmental viewpoint. Carter, Ellram, and Ready (1998) demonstrated the key role that purchasing plays in supply chain management activities in order to facilitate environmental ventures. Later research investigated barriers and triggers for sustainability and provided frameworks for sustainable supply chain management. Bansal and Roth (2000) studied the motivations and contextual factors that induce environmental sustainability in firms. Bansal (2002) presented the challenges for the companies to implement sustainability practices into their operations. Dyllick and Hockerts (2002) examined three facets of sustainability (environmental, social, and economic) and discussed how sustainability can be achieved in a company. Linton et al. (2007) provided a background for the increasing role of sustainability in supply chains.

Carter and Rogers (2008) introduced a framework of sustainable supply chain management (SSCM) that expands the concept of sustainability from the company to the supply chain level. Seuring and Muller (2008) offered a literature review on SSCM and outlined major lines of research in the field. Similarly, Carter and Easton (2011) reviewed SSCM literature and identified the trends in the field. Most recent studies have focused on the effects of consumers on sustainable supply chain management. Bask et al. (2013) identified consumer preferences for sustainability and their impact on supply chain management. Wolf (2014) examined the relationship among SSCM, stakeholder pressure and corporate sustainability performance. Sigala (2014) explored consumers’ role in managing sustainability throughout a supply chain.
Defining Sustainable Supply Chain Management

There are various definitions of SSCM. Seuring and Muller (2008, p. 1700) define SSCM as “the management of material, information and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development, i.e., economic, environmental and social, into account which are derived from customer and stakeholder requirements.” Carter and Rogers (2008, p. 368) use a similar definition of SSCM: “the strategic, transparent integration and achievement of an organization’s social, environmental, and economic goals in the systemic coordination of key interorganizational business processes for improving the long-term economic performance of the individual company and its supply chains.” Pagell and Wu (2009, p. 38) defined a sustainable supply chain as “one that performs well on both traditional measures of profit and loss as well as on an expanded conceptualization of performance that includes social and natural dimensions.” The common theme of these definitions is that they embrace a triple bottom line perspective. As seen in Table 1, earlier studies focused on just one aspect of sustainability and ignored others. Later studies’ definitions emphasized not only economic goals of the companies but also environmental and social goals due to increasing concerns from consumers.
Consumers and Sustainable Supply Chain Management

A supply chain is defined as “a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer.” (Mentzer et al. 2001, pg. 4). Other concepts also consider final consumers as a member of the supply chain (e.g. Cooper and Ellram 1993; La Londe and Masters 1994; Lambert et al. 1998, Mentzer et al. 2001). One of the main goals of a supply chain is meeting the end consumer demand (Bowersox et al. 2000). It has even been discussed in the literature that the term “supply chain” should be replaced with “demand chain” because of the shift in the focus from supply efficiency to meeting end consumer needs (Vollmann, Cordon, and Heikkila 2000; Heikkila 2002; Perry and Towes 2009). Sustainable supply chains must ensure that their products and services are sustainable not only in the upstream of the chain but also in the downstream to consumers (Font, Tapper, Schwartz, and Kornilaki 2008; Morali and Searcy 2013).

It is well established in the literature that companies are facing increased pressures from stakeholders to form sustainable supply chains. Klassen and Vachon (2003) emphasized the pressures coming from downstream members of the supply chain and showed how collaboration improves environmental management. Kocabasoglu, Prahinski, and Klassen (2007) explored the managerial efforts for dealing with stakeholder pressures on environmentally friendly operations. Wolf (2014) investigated how stakeholder pressure and SSCM contribute to an organization’s sustainability performance. This stakeholder pressure often comes from consumers (Waddock and Bodwell 2004; Lubin and Esty 2010; Kirchoff, Koch, and Nichols 2011;
Bjorklund, Martinsen, and Abrahamsson 2012). Research has shown that consumers want companies to become more socially and environmentally aware and there is a positive relationship between a company’s sustainability practices and consumer behavior. For example, Stall-Meadows and Hebert (2011) discovered that consumers are more willing to buy and use sustainable products as compared to a non-sustainable option. Feldman and Vasquez-Parraga (2013) found that a consumer’s probability of selecting a product increases if the product comes from a sustainable company.

There are many examples in the literature about sustainability practices of companies and the consequences of meeting and not meeting consumer demands on sustainability. Companies that ignore these demands may face widespread consumer boycotts, for example, Dell for its indifference to the disposal of electronic waste, Home Depot for purchasing lumber from old growth forests, and Coca Cola for receiving water diverted from public sources (Parmigiani, Klassen, and Russo 2011). As can be seen from these examples, consumers explicitly consider the sustainability practices of not only the companies but also the suppliers of the companies - in other words, the whole supply chain (Ehrgott, Reimann, Kaufmann, and Carter 2011).

In response to such expectations, companies have started to select suppliers that meet certain sustainability requirements (Tate et al. 2010), to assess their current suppliers’ sustainability practices (Gimenez and Tachizawa 2012), and to help suppliers recognize the importance of sustainability issues (Wolf 2011; Ageron, Gunasekaran, and Spalanzani 2012; Kim and Lee 2012). For example, CarComp integrates sustainability requirements into its own supplier contracts, basically stating that all products were produced under environmentally and socially responsible conditions.
(Wolf 2011). Apple Inc. influenced Foxconn to reduce worker hours, increase worker pay, and improve worker living conditions (Kull, Ellis, and Narasimhan 2013). Walmart requests suppliers to quantify their carbon footprint (Thornton, Autry, Gilgor, and Brik 2013) and cancels all direct orders from suppliers who have a pollution problem (Roth, Tsay, Pullman, and Gray 2008).

All members of the supply chain are suppliers to the consumer. Understanding and meeting consumer demand is the focus of the entire supply chain (Fearne 1996, Cooper, Lambert, and Pagh 1997). The goal of a supply chain is to increase consumer value (Bowersox et al. 2000). Thus, supply chains need to better understand the increasing demand from consumers for sustainability practices.

Environmental Sustainability

There are several key environmental sustainability initiatives discussed in the literature in a number of different areas such as recyclable material usage, energy consumption, water usage, greenhouse gas and other emissions and waste type disposal method and spills (GRI 2013). Mayyas et al. (2013) and Lindahl et al. (2014) examined sustainability considerations in material usage and selection. Van Hoek and Johnson (2010) and Ingarao et al. (2012) analyzed energy consumption and saving issues, Reich-Weiser and Dornfeld (2009) and Aviso et al. (2011) explored water usage issues within supply chains, Downie and Stubbs (2012) and Nishitani and Kokubu (2012) investigated the effect of greenhouse gas emissions on companies. Simpson and Samson (2010) and Kaipia, Dukovska-Popova, and Loikkanen (2013) studied waste reduction and its effect on sustainability performance.
This dissertation focuses on environmental and social sustainability within supply chains with consideration of the economic dimension. Environmental sustainability in the supply chain literature has been extensively referred to in terms of other sustainability dimensions. These studies concentrated on green product development and innovation (Tracey 2004; D’angelico and Pujari 2010; Isaksson, Johansson, and Fischer 2010; Chen and Chang 2013a), environmental and reverse supply chain management (Erol et al. 2010; Eng-Larsson and Kohn 2012; Kim and Lee 2012; Huscroft, Hazen, Hall, Skipper, and Hanna 2013), and green supply chain practices (Sarkis 2012; Perotti, Zorzini, Cagno, and Micheli 2012; Morali and Searcy 2013; Gimenez and Sierra 2013). Thus far, there has been relatively little guidance from academia on the downstream of the supply chain. This research will explore the relationship between a retailer’s environmental sustainability practices and consumer’s purchase intention, satisfaction, commitment, and loyalty. The moderating effects of culture and price on this relationship will also be investigated.

Social Sustainability

Sustainability research has largely focused on the environmental side. There are just a few studies that have examined social sustainability issues. Branco and Rodrigues (2006) studied social sustainability as an enhancement of social well-being. Ehrgott et al. (2011) investigated the factors affecting socially sustainable selection of suppliers. Social sustainability addressed in the literature is discussed more as a part of ethical issues. Simola (2012) examined caring behaviors at both the individual and organizational levels in relation to social sustainability. Carrington, Neville, and Whitwell
(2014) explored the intention-behavior gap in an ethical consumption context. Even though social sustainability has been addressed previously in the literature as part of social responsibility and ethical issues, the emphasis so far has been on the environmental aspects (Lindgreen, Antioco, Harness, and Sloot 2009; Peattie and Collins 2009; Ashby et al. 2012). There are many calls for more research to examine social sustainability (Pullman et al. 2009; Sarkis et al. 2010). “Socially sustainable companies add value to the communities within which they operate by increasing the human capital of individual partners as well as furthering the societal capital of these communities” (Dyllick and Hockerts 2002, p. 134). Socially responsible practices help companies gain competitive and comparative advantages (Florea, Cheung, and Herndon 2013).

Changes in consumer demand have forced companies to pay more attention to the social dimension of sustainability. Existing social sustainability research focuses on the management of people’s skills and abilities, relationships and social values (Sarkis et al. 2010; Ashby et al. 2012). Equitable opportunities, diversity, connectedness within and outside the community are all counted as main social sustainability areas (Pullman et al. 2009; Gimenez and Tachizawa 2012). Low and Davenport (2007) also emphasize animal welfare as an aspect of social sustainability. Van Buren and Greenwood (2013) examined labor issues, such as increasing expectations for employees to work longer hours, increasing income inequality, and loss of employee voice.

Social sustainability is strongly connected to corporate social responsibility (CSR), which has been defined as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their
stakeholders on a voluntary basis” (Commission of the European Communities 2001, p. 6). In that sense, CSR covers social and environmental matters together (Bansal 2005; Branco and Rodrigues 2006). CSR activities are more related to organizational activities such as transparency and sustainability reporting, while sustainability is a wider concept that focuses on value creation and environmentally friendly and socially-responsible production (Van Marrewijk 2003). The main difference between sustainability and CSR is that typical frameworks of CSR do not include consumers, while sustainability integrates the consumer as an important stakeholder in strategy making (Hult 2011). Therefore, compared to CSR, sustainability practices have more potential to lead to competitive advantage (Reuter, Foerstl, Hartmann, and Blome 2010; Hult 2011; Paulraj 2011).

While the scope of social sustainability research is wide, the most prevalent measurement system used by corporations is the Global Reporting Initiative (GRI) guidelines. The social dimension of the GRI guidelines covers four main aspects: labor practices and decent work relations (employment, labor/management, occupational health and safety, training and education, diversity and equal opportunity, and equal remuneration for women and men); human rights (investment and procurement practices, non-discrimination, freedom of association and collective bargaining, child labor, forced and compulsory labor, security practices, indigenous rights, assessment, and remediation); impact on society (local communities, corruption, public policy, anti-competitive behavior, and compliance); and product responsibility (customer health and safety, product and service labeling, marketing communications, customer privacy, and
compliance) (GRI, 2013). Detailed social sustainability guidelines can be seen in Table 2.

Today, consumers are increasingly interested in the environmental and social impact of the whole supply chain (Bask et al. 2013). A close examination of the supply chain literature reveals a lack of consumer behavior research. Further, the literature pays little attention to consumers’ perceptions of sustainability practices. To help bridge this gap, this dissertation specifically focuses on the downstream of the supply chain, and examines consumers’ perceptions of sustainability practices in a retailer-consumer context.

Table 2: Social Performance Indicators/Aspects

<table>
<thead>
<tr>
<th>Labor Practices and Decent Work</th>
<th>Human Rights</th>
<th>Society</th>
<th>Product Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>Investment and Procurement Practices</td>
<td>Local Communities</td>
<td>Customer Health and Safety</td>
</tr>
<tr>
<td>Labor/Management Relations</td>
<td>Non-discrimination</td>
<td>Corruption</td>
<td>Product and Service Labeling</td>
</tr>
<tr>
<td>Occupational Health and Safety</td>
<td>Freedom of Association and Collective Bargaining</td>
<td>Public Policy</td>
<td>Marketing Communications</td>
</tr>
<tr>
<td>Training and Education</td>
<td>Child Labor</td>
<td>Anti-Competitive Behavior</td>
<td>Customer Privacy</td>
</tr>
<tr>
<td>Diversity and Equal Opportunity</td>
<td>Forced and Compulsory Labor</td>
<td>Compliance</td>
<td>Compliance</td>
</tr>
<tr>
<td>Equal Remuneration for Women and Men</td>
<td>Security Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indigenous Rights</td>
<td>Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remediation</td>
<td>G3 Sustainability Reporting Guidelines (GRI 2013)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Consumer Behavior

Consumers’ perceptions of sustainability practices are very important as they have a positive and significant influence on consumers’ behavior and intentions (Feldman and Vasquez-Parraga 2013; Stolz, Molina, Ramírez, and Mohr 2013). Since the interest in ethical consumerism started to grow, sustainability practices of companies are perceived in a very favorable manner by consumers (Gould 2003; Mirvis 2008). Consumers expect companies to produce sustainable products and services that do not damage the environment (Tate et al. 2010). Growing consumer backlash extends these expectations to the issues that do not affect consumers directly such as child labor, fair wages, and working conditions (Maignan, Ferrell, and Ferrell 2005; Closs, Speier, and Meacham 2011).

Today, companies are aware of the fact that the market for sustainable products is rapidly growing and consumers are increasingly willing to integrate sustainable alternatives in their purchase decisions. Bezencon and Bili (2010) examined motivations of actual consumer behavior and emphasized that consumers are increasingly willing to purchase products that exhibit one or several social or environmental principles. Dangelico and Pujari (2010) investigated why companies integrate environmentally friendly practices into their operations and found the demand for green products as the main driver. Leonidou, Leonidou, and Kvasova (2010) highlighted the increasing consumer demand for sustainable products and explored the antecedents and outcomes of environmentally friendly attitudes and behavior. Consumers’ perceptions of a product’s social and environmental attributes affect their purchase intention; as a result, companies implement sustainability practices by
redesigning and redeveloping their products. For example Chen and Chang (2013a) and Chen and Chang (2013b) presented that consumers are prone to purchase sustainable products and companies are changing the way they operate by focusing on sustainability practices.

*Sustainability and Purchase Intention*

Purchase intention is the possibility of a consumer's willingness to purchase a specific product (Dodds, Monroe, and Grewal 1991). Research has demonstrated a positive relationship between a company’s sustainability practices and consumers' purchase intention or buying decision (Sen and Bhattacharya 2001; Lichtenstein et al. 2004; Kim and Choi 2005; Mohr and Webb 2005; Stall-Meadows and Hebert 2011; David, Kline, and Dai 2005; Branco and Rodrigues 2006; Lash and Wellington 2007). A recent survey by Greendex (2012) revealed that more than fifty percent of consumers describe themselves as people who choose environmentally friendly products as often as they can. Other surveys also revealed consumers' increasing purchase intention of sustainable products and services (Drumwright 1994; Mohr et al. 2001, Schlegelmilch and Pollach 2005).

While many consumers are willing to buy sustainable products, others boycott products that have poor environmental and social records (Tate et. al 2010; Ha-Brookshire and Norum 2011). For example, Nike’s use of sweatshops in its global operations, Shell’s poor handling of the Brent Spar affair (deep sea disposal of an oil storage), and Burger King’s and McDonald’s’ harmful environmental and social practices. All led to widespread consumer boycotts (Iyer 1999; Branco and Rodrigues
Generally, a company’s environmental and social sustainability practices will lead consumers to have a higher purchase intention than less responsible organizations (Brown and Dacin, 1997; Oliver and Lee 2010).

**Sustainability and Consumer Commitment**

There are benefits other than purchase intention that environmentally friendly and socially responsible companies get from consumers, such as consumer commitment, satisfaction and loyalty. Commitment is defined as “an enduring desire to maintain a valued relationship” (Moorman, Zaltman, and Deshpande 1992, p. 316). The commitment concept refers not only to the continuity of the relationship, but also to the growth of the relationship between exchange partners (Udorn et al. 1998). It involves an individual’s expression of genuine interest in the company’s welfare and desire to remain a consumer (Ingram, Skinner, and Taylor 2005).

A consumer’s commitment potentially leads to intentions to repeat or increase previous behaviors, specifically, green and socially responsible behaviors (Ngo et al. 2009; Lacey and Kennet-Hensel 2010). Consumers’ commitment to environmental sustainability issues has triggered a change not only in the demand for more sustainable products and services but also in the sensitivity of companies towards sustainability issues (Lichtenstein et al. 2004; Fraj-Andrés, Martínez-Salinas, and Matute-Vallejo 2009). Negative sustainability efforts have been shown to lower consumer commitment to the company, while positive sustainability practices have been shown to enhance the consumer commitment. In the latter case, consumers are
expected to reward the company with a higher level of commitment (Gupta and Pirsch 2008).

**Sustainability and Consumer Satisfaction**

Consumer satisfaction is another construct in this study. Satisfaction is defined as the buyer’s comparison of the rewards and costs in relation to the anticipated consequences (Churchill and Surprenant 1982). Similarly, Fornell (1992) suggests that satisfaction is an overall positive feeling that consumers have when they compare a product or service with their ideal standards.

Previous studies presented the positive influence of sustainability practices on consumer satisfaction and highlighted that consumers are likely to be more satisfied by products and services that are made in an environmentally and socially responsible manner (Park and Tahara 2008; Schreck 2011; Hsu 2012; Loureiro, Dias Sardinha, and Reijnders 2012). Concepts like green practices, environmental orientation and social sustainability triggered the relationship between firms’ sustainability activities and the satisfaction of consumers (Luo and Bhattacharya 2006; Fraj-Andrés, Martinez-Salinus, and Matute-Vallejo 2008). Many firms have implemented sustainability practices into their operations to strengthen consumer satisfaction (Menon, Menon, Chowdhury, and Jankovich 1999). Implementation of sustainability practices in supply chain led to greater consumer satisfaction (Bjorklund et al. 2012; Eskandarpour, Zegordi, and Nikbakhsh 2013). The reason why companies started to focus on sustainability practices was to deliver what consumers wanted; otherwise the product would not sell (Sirgy and Lee 2008). The reason why consumers are more satisfied with sustainable
companies is that they believe they are contributing to an environmental cause and social welfare by involving in an exchange relationship with the sustainable company (Rios et al. 2006).

Sustainability and Consumer Loyalty

This dissertation also studies consumer loyalty, which is defined as the strength of the relationship between an individual's relative attitude and repeat patronage (Dick and Basu 1994). It can be conceptualized as a behavioral intention to maintain an ongoing relationship with a service provider (Singh and Sirdeshmukh 2000) or a consumer's willingness to stay with a company (Bell, Auh, and Smalley 2005). Companies can improve consumer loyalty by being open to change through listening to consumers and being responsive to their concerns. Understanding consumer expectations, being responsive to the needs of consumers, and adjusting products and services offered are all important in building consumer loyalty (Kotler and Keller 2012).

The literature suggests that being environmentally and socially sustainable benefits a company in the form of increased consumer loyalty (Forte and Lamont 1998; Sheikh and Beise-Zee 2011; Smerecnik and Andersen 2011). There is also evidence in the literature that sustainability practices are closely tied to higher levels of consumer loyalty (Gupta and Pirsch 2008; Kirchoff et al. 2011; Stanaland, Lwin, and Murphy 2011; Lee et al. 2012). Du, Bhattacharya, and Sen (2007) found that socially responsible practices are associated with greater purchase likelihood and longer-term loyalty. Pirsch et al. (2007) presented that consumers perceive value in even the most basic forms of sustainability practices, and these practices enhance consumer loyalty. Matute-Vallejo,
Bravo, and Pina (2011) showed that company commitment to the environment and society have significant effects not only on consumer loyalty but also on commitment and satisfaction. Thus, firms can improve consumer loyalty by being responsive to consumers’ sustainability concerns (Marin, Ruiz, and Rubio 2008), and companies will be rewarded with higher levels of consumer loyalty by adopting environmentally friendly practices (Pirsch et al. 2007).

Consumers are willing to actively support organizations that are committed to donating to charities, protecting the environment, or sponsoring local events. (Maignan and Ferrell 2004). Consumer loyalty can be strengthened through the application of these practices (Maignan, Ferrell, and Hult 1999). Many firms have already started to implement sustainability practices into their operations in order to increase levels of consumer loyalty (Menon et al. 1999; Fraj-Andrés et al. 2009). For example, Timberland integrated sustainability principles such as environmental consciousness, and fair and humane labor practices into its strategy, which resulted in improved loyalty of its consumers (Du et al. 2007).

As discussed in the literature review, consumers are willing to purchase from environmentally and socially sustainable companies. Environmental and social sustainability practices increase a consumer’s satisfaction, commitment and loyalty levels. In this study, these main effects that have been discussed in the literature (Lichtenstein et al. 2004; Kim and Choi 2005; Gupta and Pirsch 2008; Fraj-Andrés et al. 2009; Kirchoff et al. 2011; Stanaland et al. 2011; Lee et al. 2012) will be confirmed. This dissertation contributes to the literature by examining the effects of both environmental
and social sustainability. Therefore, based on the existing literature the following hypotheses were tested:

H1a: An increase in environmental sustainability leads to an increase in consumer purchase intention.

H1b: An increase in environmental sustainability leads to an increase in consumer satisfaction.

H1c: An increase in environmental sustainability leads to an increase in consumer commitment.

H1d: An increase in environmental sustainability leads to an increase in consumer loyalty.
H2a: An increase in social sustainability leads to an increase in consumer purchase intention.

H2b: An increase in social sustainability leads to an increase in consumer satisfaction.

H2c: An increase in social sustainability leads to an increase in consumer commitment.

H2d: An increase in social sustainability leads to an increase in consumer loyalty.
Sustainability and Culture

Hofstede (1993, p. 89) defines culture as ‘the collective programming of the mind which distinguishes one group or category of people from another. According to Hofstede, there are six dimensions of national culture: Power Distance, Individualism/Collectivism, Masculinity/Femininity, Uncertainty Avoidance, Long/Short Term Orientation and Indulgence/Restraint (Hofstede 2013). In this study, the Individualism/Collectivism dimension is used. This dimension has been utilized extensively in the literature to explore consumer behavior in different nations (e.g. Chan 2001; McCarty and Shrum 2001; Becker-Olsen et al. 2011; Robinson et al. 2012).

Culture is one of the most important variables affecting consumer behavior (Nijssen and Douglas 2008; Eisingerich and Rubera 2010). The difference between individualistic and collectivistic societies is considered vital for explaining consumer behavior (Xiao and Kim 2009). Concern for sustainability is a global issue, and it is important to understand whether consumer behavior relative to sustainability practices differs based on the culture (Oliver and Rosen 2010). Although cultural values are found to play important roles in forming consumers’ behavior, little is known about the potential effects of collectivism or individualism on consumers’ sustainability perceptions (Dean 2003; Kim and Choi 2005; Xiao and Kim 2009).

In this dissertation, Hofstede’s (2001) definitions of individualism and collectivism are used: “Individualism stands for a society in which the ties between individuals are loose: Everyone is expected to look after him/herself and her/his immediate family only. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people’s lifetime continue to protect them
in exchange for unquestioning loyalty” (Hofstede 2001, p. 225). In general people from individualist cultures tend to be autonomous and give priority to their personal goals over in-group goals, whereas those from collectivist cultures give priority to the goals of their in-groups and are especially concerned with relationships (Triandis 2001).

Collectivist consumers are more concerned with having positive effects on others and on their environment (Torelli, Monga, and Kaikati 2012), more likely to prefer attitudes and behaviors that support what is the best for the society at large (Parboteeah et al. 2012), more willing to help others (Kim and Choi 2005), and favor altruism more (Robinson et al. 2012). Therefore, collectivist consumers tend to be more sensitive to sustainability initiatives aimed at protecting the environment and being socially responsible. For example, Eisingerich and Rubera (2010) found that being socially responsible increases consumer commitment more in collectivist cultures than in individualist ones. Kim (2011) revealed the positive effect of collectivism in the relationship between a company’s environmental attitudes and consumer behavior. Similarly, Parboteeah et al. (2012) discovered a positive relationship between collectivism and the tendency of consumers to support sustainability initiatives.

The influence of culture on sustainable consumer behavior is evident in the literature. Collectivist consumers have more concern for interpersonal harmony, group solidarity (Chen, Chen, and Meindl 1998), moral obligations and protection for others (Ng and Burke 2010). McCarty and Shrum (2001) found that collectivist consumers consider recycling more important compared to individualist consumers. Becker-Olsen et al. (2011) revealed that Mexican consumers (who are collectivist) value social responsibility actions more than U.S. consumers (who are individualist). Similarly,
Maignan (2001) presented that consumers in France and Germany are more supportive of socially responsible businesses than U.S. consumers. Robinson et al. (2012) showed that collectivists tend to care more about contributing to society. Eisingerich and Rubera (2010) found that being socially responsible increases brand commitment in countries with cultures that are collectivist. Parboteeah et al. (2012) revealed that collectivism is positively related to an individual’s propensity to support sustainability initiatives. Chan (2001) discovered that collectivism exerts a significantly positive influence on attitudes toward green purchases.

Culture is an important factor affecting consumer behavior. It is evident in the literature that culture moderates consumers’ sustainability perceptions (Maignan 2001; McCarty and Shrum 2001; Eisingerich and Rubera 2010). Specifically, in collectivist cultures consumers place more emphasis on sustainability than consumers in individualist cultures (Maignan 2001; Eisingerich and Rubera 2010; Kim 2011; Parboteeah et al. 2012; Robinson et al. 2012). The literature has looked at sustainability perceptions in different cultures in general, but not specifically in terms of environmental and social sustainability. This study will examine environmental and social sustainability separately, and their effects on consumer behavior will be investigated in both individualist and collectivist cultures. Based upon the literature review, the following hypotheses are derived:
H3a: An increase in environmental sustainability leads to a greater increase in purchase intention in collectivist cultures than in individualist cultures.

H3b: An increase in environmental sustainability leads to a greater increase in consumer satisfaction in collectivist cultures than in individualist cultures.

H3c: An increase in environmental sustainability leads to a greater increase in consumer commitment in collectivist cultures than in individualist cultures.

H3d: An increase in environmental sustainability leads to a greater increase in consumer loyalty in collectivist cultures than in individualist cultures.
H4a: An increase in social sustainability leads to a greater increase in purchase intention in collectivist cultures than in individualist cultures.

H4b: An increase in social sustainability leads to a greater increase in consumer satisfaction in collectivist cultures than in individualist cultures.

H4c: An increase in social sustainability leads to a greater increase in consumer commitment in collectivist cultures than in individualist cultures.

H4d: An increase in social sustainability leads to a greater increase in consumer loyalty in collectivist cultures than in individualist cultures.
The Effects of Price

Consumer loyalty, commitment, satisfaction and purchase intention are not solely based on companies’ sustainability practices. Although the sustainability practices of a company are important, price tends to be a more significant determinant of consumer behavior (Ha-Brookshire and Norum 2011). There is an increase in consumers’ interest in the sustainable products and services, but consumers are not purchasing these products as expected (Clifford and Martin 2011). The main reason for this is the high price of sustainable products. In a recent poll, 83 percent of consumers say that it is important that companies implement sustainability practices, but only 22 percent say they will pay more for an environmentally friendly product (Nielsen 2011).

In the literature, several studies examined the relationship between price and consumer behavior from a sustainability perspective. Pullman et al. (2009) found that social sustainability practices did not reduce costs, and neither environmental nor social sustainability practices were linked to direct cost reductions. Lindgreen et al. (2009) showed that consumers find environmental and social sustainability dimensions relevant but not as important as the price of the product. Creyer and Ross (1996) examined how ethical and unethical corporate behavior influence consumers’ willingness to pay for a product and suggested that consumers do not reward ethical corporate behavior with a willingness to pay higher prices. Gleim et al. (2013) discovered that price is the key factor in consumers’ commitment to green products because it has the strongest influence in consumers’ decision making. Similarly, Wolf (2011) revealed that consumers expect sustainable products from companies but are not willing to pay a premium for these products.
Sustainability practices such as remanufacturing, recycling, and refurbishing add an additional level of complexity to the company which in turn increases costs. (Linton et al, 2007). In addition to economic costs, costs of changing behavior, negotiating, monitoring, and enforcement costs also can be included in sustainability practices (Frooman 1999). Multiple objectives such as profitability and sustainability are often in conflict and force companies to make trade-offs (Garrette and Karnani 2010). These costs are eventually reflected in the prices of sustainable products.

While there is awareness and willingness to buy eco-labeled products, consumers often prioritize price over sustainability (Barone et al. 2000; Horne 2009; Gleim et al. 2013). When consumers must choose between lower prices or the sustainability practices, the environment generally loses (Connelly, Ketchen, and Slater 2011). Many consumers do not want to pay a price premium for the sake of sustainability despite a positive stance on sustainability issues (Johri and Sahasakmontri 1998). Consumers indicate that if the price of a product is the same as other options, they would choose the product from an environmentally friendly company (Luchs, Naylor, Irwin, and Raghunathan 2010). Similarly, approximately 70% of consumers stated that if price is equal they would consider switching to retailers or brands associated with a cause (Ellen, Mohr, and Webb 2000).

Consumers want companies to offer products and services and create new processes, but not those that might be damaging to the environment and certainly not at a high price (Devinney 2009). Unaffordable product price causes a decline in consumer loyalty and satisfaction levels (Simola 2012). Bray, Johns, and Kilburn (2010) revealed that price is the main barrier to ethical consumption for participants and consumers of
ethical products, but they showed enhanced loyalty to an ethical alternative when price is ignored.

Consumers in individualist and collectivist cultures differ in their perception of product attribute importance. Specifically, the price of a product is more important to collectivist consumers compared to individualist ones. Wickliffe and Pysarchik (2001) found that collectivist consumers place more importance on price than individualist consumers when selecting a product. Ackerman and Tellis (2001) stated that compared to individualist American consumers, collectivist Chinese consumers are more price conscious, defined as “the degree to which the consumer focuses exclusively on paying low prices” (Lichtenstein, Ridgway, and Netemeyer 1993, p. 235). Similarly Wang and Lin (2009) emphasized price consciousness of Chinese consumers. Jin and Sternquist (2003) found that collectivist Korean consumers are more price conscious than individualist US consumers. Nguyen, Chang, and Simkin (2014) revealed that price impacts the collectivist consumers more highly in comparison to individualist consumers.

As discussed in the literature review, sustainable products have high prices and high prices have a negative effect on consumer behavior (Lindgreen et al. 2009; Garrette and Karnani 2010; Wolf 2011; Gleim et al. 2013). While collectivist consumers are more concerned with sustainability, they are also more price-conscious than individualist consumers (Ackerman and Tellis 2001; Wickliffe and Pysarchik 2001; Jin and Sternquist 2003; Nguyen et al. 2014). This study contributes to the literature by examining the moderating effect of price on specific aspects of sustainability. Based on the existing literature the following hypotheses were tested:
H5a: An increase in price leads to a greater decrease in the effect of environmental sustainability on purchase intention in collectivist cultures than in individualist cultures.

H5b: An increase in price leads to a greater decrease in the effect of environmental sustainability on consumer satisfaction in collectivist cultures than in individualist cultures.

H5c: An increase in price leads to a greater decrease in the effect of environmental sustainability on consumer commitment in collectivist cultures than in individualist cultures.

H5d: An increase in price leads to a greater decrease in the effect of environmental sustainability on consumer loyalty in collectivist cultures than in individualist cultures.
H6a: An increase in price leads to a greater decrease in the effect of social sustainability on purchase intention in collectivist cultures than in individualist cultures.

H6b: An increase in price leads to a greater decrease in the effect of social sustainability on consumer satisfaction in collectivist cultures than in individualist cultures.

H6c: An increase in price leads to a greater decrease in the effect of social sustainability on consumer commitment in collectivist cultures than in individualist cultures.

H6d: An increase in price leads to a greater decrease in the effect of social sustainability on consumer loyalty in collectivist cultures than in individualist cultures.
Chapter Two Summary

The purpose of this chapter was to provide a comprehensive literature review of sustainability and consumer behavior from several fields of study. SET and TRA theories are presented as applicable theories. The effects of environmental and social sustainability on consumer behavior are discussed. Moderating effects of culture and price are also examined. The following chapter will describe the methodology utilized in this dissertation. Chapter 3 lays out two experiments that will be used to test the hypotheses in the model.
CHAPTER 3
METHODOLOGY

This chapter provides details of the methodological approach that is used to conduct empirical research for this dissertation. The present research employs two scenario based behavioral experiments. The purpose of these experiments is to explain the effects of sustainability and price on consumer behavior in different cultural contexts. In the remainder of this chapter, justifications for the research method, the sample and procedures are described; the instrument and measures are discussed as well.

Experimental Studies

To test the hypotheses, two experiments were conducted. A behavioral experimental approach was adopted as an appropriate method for this study for several reasons. First, these experiments allow for testing of Social Exchange Theory, and identifying cause-and-effect relationships between sustainability practices, price, culture, and consumer behavior. Second, social desirability bias is a prevalent concern for sustainability studies, where participants may want to provide favorable answers instead of their own beliefs. Experiments are less likely to be affected by a social desirability bias because respondents are unlikely to predict the purpose of the research (Mohr et al. 2001). Third, experiment with individuals is one of the most underdeveloped areas in the supply chain management field (Tokar 2010; Waller and Fawcett 2011). Because of these reasons, scenario-based experiments are adopted for this
A 2x2x2 factorial design (for the first experiment: high/low environmental sustainability, high/low price, individualism/collectivism; for the second experiment: high/low social sustainability, high/low price, individualism/collectivism) was used in both experiments for the development of eight different treatment conditions in total (see Appendix A). The purpose of Experiment 1 was to address the first research question: What is the effect of environmental sustainability on consumer behavior in different cultural contexts and price levels? In the first experiment, environmental sustainability (high, low) and price levels (high, low) were manipulated. Experiment 2 addressed the second research question: What is the effect of social sustainability on consumer behavior in different cultural contexts and price levels? In the second experiment, social sustainability (high, low) and price levels (high, low) were manipulated. The third factor was the culture in both experiments. The effect of culture was observed by collecting two samples, one from an individualist country and the second from a collectivist country. The dependent variables include consumers' purchase intention, satisfaction, loyalty, and commitment. AMOS software was used to conduct confirmatory factor analysis to check validity and reliability of the measures. SPSS software was used to test the main and interaction effects of the experiments.

Sample

The two experiments were conducted using undergraduate students as research participants. The use of a student sample is justified for several reasons. First, homogenous sampling is required in behavioral experiments (Thomas 2011). Second,
student samples are widely used in examining the relationship between sustainability practices and consumer behavior (e.g. Davis 1994; Stanley and Lasonde 1996; Kim and Choi 2005; Barone, Norman, and Miyazaki 2007; Iyer and Kashyap 2007). Third, prior academic research regarding the effects of sustainability in different cultures has not focused on young consumers. While previous studies found that Millennials (i.e., individuals born between 1980 and 2000) (Gloeckler 2008)) are highly interested in environmental and social sustainability (Gunelius 2008; Barber, Taylor, Strick 2010; Kerin, Hartley, and Rudelius 2013) and would like to purchase sustainable products (Chief Marketer 2007; Smith 2012), research has not examined this population in terms of culture. Thus, exploring the moderating effects of culture and price on young consumers is an interesting research area.

As Hair et al. (2010) suggested, the sample in each cell must be larger than the number of dependent variables, and the recommended minimum cell size is 20 participants. This study has 8 cells per experiment; therefore based on these recommendations, a minimum sample of 160 participants per experiment and 320 in total is desired.

The participants for this research were undergraduate students at a major university in the southeastern USA and at a large university in Turkey. Turkey is economically and culturally different from the countries used in previous research (Maignan 2001; McCarty and Shrum 2001; Eisingerich and Rubera 2010; Robinson et al. 2012) and can thus provide a different perspective on the relationship between sustainability and consumer behavior. Turkey is a collectivist country where people tend to view themselves as members of in-groups (Hofstede 2013). Turkey represents
an emerging market with a young population. Several studies predict that newly industrialized countries (NIC) such as Turkey will be the economic leaders of the world in a few decades (Hawksworth 2006; Wilson and Stupnytska 2007; Goldstone 2010). Millennials are a large segment of the population in Turkey, where 58% of the population is under the age of 35 and 42% is under the age of 25 (TUIK 2013; CIA, 2014). All of this makes Turkey an interesting location for studying Millennials’ perceptions of sustainability.

The standard "back-translation" method was applied to translate the questionnaire from English into Turkish. Translation procedures used by Green and White (1976) and Deshpande, Hoyer and Donthu (1986) were followed. First, the questionnaire was translated into Turkish. Second, two researchers who are fluent in both languages back–translated the Turkish version of the questionnaire into English. Discrepancies were determined and minor corrections were made. Third, the Turkish version was pretested on a sample of Turkish consumers.

Procedure

After a brief introduction, participants were randomly assigned to one of eight treatment conditions. Participants read a scenario that describes an exchange relationship between a retailer and consumers. The scenario included manipulations of environmental sustainability practices or social sustainability practices of a retailer and price levels (see Appendices B and C). Sustainability manipulation questions were adapted from Choi and Ng (2011). After reading the scenario, participants were asked how they think a typical consumer would react to the scenario. This projective method
helps researchers to construct indirect questions that are not significantly affected by social desirability bias (Fisher 1993).

Pretest

A pretest was conducted to check readability, validity, reliability, and manipulations. Academic experts evaluated the scenarios and questionnaire for face validity, readability, and realism of the scenario settings. Undergraduate students in the USA and Turkey were used to pretest the scale items and the experimental manipulations.

Instruments and Measures

Each experiment consisted of instructions, a brief scenario, scale items, manipulation check items, realism check items, culture items and demographic questions. In each experiment a fictitious retailer and consumer relationship was described. In Experiment 1, the relationship was portrayed as having either high or low levels of environmental sustainability practices and either high or low price levels. In Experiment 2, the relationship was described as having either high or low levels of social sustainability practices and either high or low price levels.

Item scales for the manipulation check items and dependent variables were modified from existing scales. Manipulation check items for environmental sustainability, social sustainability, and price were adopted from Choi and Ng (2011). All items were measured on a 7-point Likert scale. Purchase intention items were measured on a scale ranging from “very low” to “very high”, while the other items were measured on a scale
ranging from “strongly disagree” to “strongly agree”. The manipulation check measures were used to ensure the experimental manipulations were successful. The manipulation check was performed to see if the treatment cells of the independent variables were significantly different. Realism checks were also performed to determine if the scenario projected a real world situation. Realism check items were adapted from Dabholkar (1994). A copy of the dependent and manipulation check variables can be found in Appendix D.

Existing scales were modified for the dependent variables that were used in both experiments. The purchase intention measure was adapted from Dodds, Monroe, and Grewal (1991). The commitment measure was adapted from Beatson, Coote, and Rudd (2006). The satisfaction measure was adapted from Sung and Choi (2010) and the loyalty measure was adapted from Yang and Peterson (2004). All items were measured on a 7-point Likert scale from “strongly disagree” to “strongly agree.”

Scale Purification

Scale purification was used to evaluate unidimensionality, reliability, convergent validity, and discriminant validity. Initially, an exploratory factor analysis of all measures was conducted to ensure unidimensionality of the measures and to check for cross-loading by using SPSS. Then, a confirmatory factor analysis (CFA) was performed using AMOS to determine how well the measures of the constructs fit the data. To validate the model, the convergent validity, reliability and discriminant validity of the scales were determined by checking item loadings, average variance extracted, and correlations (compared to the square root of the AVEs) respectively.
Data analysis

The hypotheses were tested through multivariate analysis of variance (MANOVA) by assessing the main and interaction effects. There were three steps in this analysis. First, an omnibus test was conducted to see if there is an overall significant effect at the $p < 0.05$ level. Next, the main effects of each independent variables were tested. Finally, post-hoc tests were performed to evaluate interaction effects. Tukey’s adjustment was used to guard against Type 1 errors.
CHAPTER 4
DATA ANALYSIS AND RESULTS

This chapter provides the analysis of the two experiments presented in Chapter 3. In the first experiment, I manipulated environmental sustainability and price levels as high and low. In the second experiment I manipulated social sustainability and price levels as high and low (see Appendices B and C for scenarios). The dependent variables were purchase intention, consumer commitment, consumer satisfaction, and consumer loyalty for both experiments.

The chapter is organized as follows. First, the sample and scale purification for the experiments are described. Second, the main hypotheses are analyzed and the results from six hypothesis tests are provided. Finally, the results of the two experiments are discussed.

Sample

The participants in the experiments were undergraduate students at a major university in the southeastern USA and at a large university in Turkey. While there were 386 respondents, 36 were deleted due to clear lack of attention paid to the instrument (i.e., blank or identical responses for all measures). The sample size in the first experiment was 172 (87-USA, 85-Turkey) and in the second experiment was 178 (92-USA, 86-Turkey). Both experiments meet the minimum requirement of 20 participants per cell (Hair et al. 2010).
In the first experiment 58.72% of the sample was male and the average age of the respondents was 22.18 (standard deviation=1.48). In the second experiment 67.98% of the sample was male and the average age of the participants was 22.3 (standard deviation=1.68). The details about the sample characteristics are presented in Table 3.

Table 3: Sample Characteristics

**EXPERIMENT 1**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>50</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>Turkey</td>
<td>51</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>69</td>
<td>2</td>
</tr>
<tr>
<td>Percentage</td>
<td>58.72%</td>
<td>40.12%</td>
<td>1.16%</td>
</tr>
</tbody>
</table>

**EXPERIMENT 2**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>66</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Turkey</td>
<td>55</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>121</td>
<td>54</td>
<td>3</td>
</tr>
<tr>
<td>Percentage</td>
<td>67.98%</td>
<td>30.34%</td>
<td>1.68%</td>
</tr>
</tbody>
</table>

**EXPERIMENT 1**

<table>
<thead>
<tr>
<th>Age</th>
<th>19-21 years</th>
<th>22-24 years</th>
<th>25-27 years</th>
<th>Missing</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>34</td>
<td>45</td>
<td>6</td>
<td>2</td>
<td>21.87</td>
<td>1.412</td>
</tr>
<tr>
<td>Turkey</td>
<td>22</td>
<td>56</td>
<td>7</td>
<td>0</td>
<td>22.49</td>
<td>1.493</td>
</tr>
<tr>
<td>Total</td>
<td>56</td>
<td>101</td>
<td>13</td>
<td>2</td>
<td>22.18</td>
<td>1.482</td>
</tr>
<tr>
<td>Percentage</td>
<td>32.56%</td>
<td>58.72%</td>
<td>7.56%</td>
<td>1.16%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EXPERIMENT 2**

<table>
<thead>
<tr>
<th>Age</th>
<th>19-21 years</th>
<th>22-24 years</th>
<th>25-27 years</th>
<th>Missing</th>
<th>Mean</th>
<th>St. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>35</td>
<td>50</td>
<td>5</td>
<td>2</td>
<td>22.07</td>
<td>1.592</td>
</tr>
<tr>
<td>Turkey</td>
<td>26</td>
<td>45</td>
<td>14</td>
<td>1</td>
<td>22.54</td>
<td>1.75</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>95</td>
<td>19</td>
<td>3</td>
<td>22.3</td>
<td>1.682</td>
</tr>
<tr>
<td>Percentage</td>
<td>34.27%</td>
<td>53.37%</td>
<td>10.67%</td>
<td>1.68%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scale Purification

All the measures for the dependent variables were adapted from established scales. The purchase intention measure was adapted from Dodds, Monroe, and Grewal (1991). The commitment measure was adapted from Beatson, Coote, and Rudd (2006). The satisfaction measure was adapted from Sung and Choi (2010) and the loyalty measure was adapted from Yang and Peterson (2004) (See Appendix D for the dependent variables).

The unidimensionality, reliability, and discriminant validity of the constructs were assessed during scale purification. Convergent validity and unidimensionality were determined by using principal component analysis. A minimum Kaiser-Meyer-Olkin score of 0.7 and a significant Bartlett’s test of sphericity are considered necessary to reliably use factor analysis for data analysis. Both requirements were met with a Kaiser-Meyer-Olkin score of 0.955 and a Bartlett’s test of sphericity was significant at the 0.000 level. These results suggested that items and correlations are sufficient for each factor (Leech et al. 2012). Factor analysis was conducted to check the loadings of the items on the four dependent variables. The items formed into the four groups but two loyalty items (items 13 and 17) were cross-loaded with the commitment construct items. Thus, these two items were deleted (item 13 - The typical consumer would recommend the retailer to those who seek the consumer’s advice about such matters, item 17 - The typical consumer intends to do more business with the retailer). As shown in Table 4, the other 15 items did not cross-load and had strong loadings (over 0.5) on the intended variables (Hair et al. 2010).
Internal reliability was assessed using Cronbach’s coefficient alpha. Nunnally and Bernstein (1994) suggest that an alpha level of 0.80 is sufficient for good internal consistency. All four scales exceeded the recommended alpha values of 0.80 which suggests that the items satisfactorily captured the constructs (Churchill 1979). In other words, if we were to use these items to measure the same constructs again, we would obtain similar results (Bhattacherjee 2012).

Table 4: Factor Loadings, Means, Standard Deviations, and Coefficient α

<table>
<thead>
<tr>
<th>Measurement Items (Scale items)</th>
<th>Loadings</th>
<th>Mean/Std Dev.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Intention (α=0.897)</td>
<td>0.77</td>
<td>4.33/1.77</td>
<td>Dodds et al. (1991)</td>
</tr>
<tr>
<td>The typical consumer’s willingness to purchase from this retailer is very high.</td>
<td>0.77</td>
<td>4.33/1.77</td>
<td></td>
</tr>
<tr>
<td>The typical consumer is very likely to purchase from this retailer.</td>
<td>0.78</td>
<td>4.38/1.63</td>
<td></td>
</tr>
<tr>
<td>The probability that the typical consumer would consider purchasing from this retailer is very high.</td>
<td>0.82</td>
<td>4.41/1.76</td>
<td></td>
</tr>
<tr>
<td>Consumer Commitment (α=0.921)</td>
<td>0.74</td>
<td>4.36/1.68</td>
<td>Beatson et al. (2006)</td>
</tr>
<tr>
<td>The typical consumer would plan to return to this retailer.</td>
<td>0.74</td>
<td>4.36/1.68</td>
<td></td>
</tr>
<tr>
<td>The typical consumer’s relationship with this retailer is something the consumer intends to maintain.</td>
<td>0.75</td>
<td>4.33/1.69</td>
<td></td>
</tr>
<tr>
<td>The typical consumer’s relationship with this retailer will last a long time.</td>
<td>0.78</td>
<td>4.38/1.65</td>
<td></td>
</tr>
<tr>
<td>Maintaining a long term relationship with this retailer is important to the typical consumer.</td>
<td>0.70</td>
<td>4.37/1.68</td>
<td></td>
</tr>
<tr>
<td>Consumer Satisfaction (α=0.907)</td>
<td>0.70</td>
<td>4.50/1.64</td>
<td>Sung and Choi (2010)</td>
</tr>
<tr>
<td>The typical consumer feels satisfied with the relationship with this retailer.</td>
<td>0.70</td>
<td>4.50/1.64</td>
<td></td>
</tr>
</tbody>
</table>
The typical consumer’s relationship with this retailer does a good job of fulfilling the consumer’s needs. 0.80 4.61/1.57

The typical consumer’s relationship with this retailer makes the consumer very happy. 0.75 4.61/1.48

The typical consumer’s relationship with this retailer is close to ideal. 0.75 4.65/1.67

<table>
<thead>
<tr>
<th>Consumer Loyalty (α=0.918)</th>
<th>4.27/1.53</th>
<th>Yang and Peterson (2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The typical consumer would say positive things about the retailer to other people.</td>
<td>0.71 4.29/1.73</td>
<td></td>
</tr>
<tr>
<td>The typical consumer would encourage friends and relatives to buy from the retailer.</td>
<td>0.73 4.25/1.61</td>
<td></td>
</tr>
<tr>
<td>The typical consumer would post positive messages about the retailer on some Internet message board.</td>
<td>0.76 4.26/1.77</td>
<td></td>
</tr>
<tr>
<td>The typical consumer intends to continue to do business with the retailer.</td>
<td>0.74 4.30/1.72</td>
<td></td>
</tr>
</tbody>
</table>

Discriminant validity among the constructs was assessed by comparing the average variance extracted (AVE) for each construct with the squared phi correlation between each pair of constructs. As suggested, AVE values were over 0.5 (Hair et al. 2010), and were greater than the squared phi correlations (Fornell and Larcker 1981). Overall, the results offer support for discriminant validity. The AVE and squared correlation values can be seen in Table 5.
Table 5: Average Variance Extracted

<table>
<thead>
<tr>
<th></th>
<th>Purchase</th>
<th>Commitment</th>
<th>Satisfaction</th>
<th>Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase</td>
<td>0.747</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>0.590</td>
<td>0.748</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.531</td>
<td>0.627</td>
<td>0.712</td>
<td></td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.578</td>
<td>0.689</td>
<td>0.671</td>
<td>0.738</td>
</tr>
</tbody>
</table>

Diagonal: Average variance extracted; Lower Matrix: Squared correlations

Culture Analysis

As several of the hypotheses involved comparisons of a collectivist versus an individualist culture, an independent samples t-test is used for comparing the mean scores of the culture variables. The measurement items and values are presented in Table 6 and Table 7. As expected, the mean level of collectivist value in the Turkey consumer sample is significantly higher than in the U.S.A. consumer sample (MTurkey = 4.88 > MU.S.A. = 3.43, p<0.005). Previous studies have supported this finding suggesting that Turkey is a collectivist country (with a score of 37 on individualism) and U.S.A. is an individualist country (with a score of 91 on individualism) (Hofstede 2013). Thus, for the purpose of testing culture in hypotheses H3, H4, H5, and H6, we can compare Turkey versus the U.S.A. to examine differences between a collectivist and individualist culture.
Table 6: Factor Loadings, Means, Standard Deviations, and Coefficient $\alpha$

<table>
<thead>
<tr>
<th>Measurement Items (Scale items)</th>
<th>Loadings</th>
<th>Mean/Std Dev.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture ($\alpha=0.940$)</td>
<td>0.89</td>
<td>4.08/1.90</td>
<td>Chan et al. (2010)</td>
</tr>
<tr>
<td>Individuals should sacrifice self-interest for the group</td>
<td>0.89</td>
<td>4.16/1.87</td>
<td></td>
</tr>
<tr>
<td>Individuals should stick with the group even through difficulties</td>
<td>0.88</td>
<td>4.09/1.89</td>
<td></td>
</tr>
<tr>
<td>Individuals should pursue their goals only after considering the welfare of the group</td>
<td>0.88</td>
<td>4.06/1.75</td>
<td></td>
</tr>
<tr>
<td>Group welfare is more important than individual rewards</td>
<td>0.87</td>
<td>4.23/1.72</td>
<td></td>
</tr>
<tr>
<td>Group success is more important than individual success</td>
<td>0.84</td>
<td>4.22/1.67</td>
<td></td>
</tr>
<tr>
<td>Group loyalty should be encouraged, even if individual goals suffer</td>
<td>0.84</td>
<td>4.22/1.67</td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Culture Means, Standard Deviations, and Significance Level

<table>
<thead>
<tr>
<th>CULTURE</th>
<th>Number</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>179</td>
<td>3.43</td>
<td>1.51</td>
<td>0.000</td>
</tr>
<tr>
<td>Turkey</td>
<td>171</td>
<td>4.88</td>
<td>1.29</td>
<td></td>
</tr>
</tbody>
</table>

Manipulation and Realism Checks

Manipulation checks were performed to see if the treatment cells of the independent variables were significantly different. The independent variables manipulated in the first experiment were environmental sustainability and price levels. Environmental sustainability levels were manipulated as high and low based on pollution levels, waste reduction, greenhouse gas emissions and other green business practices throughout the supply chain. Price levels were manipulated as high and low.
based on a comparison with other retailers’ price levels (see Appendix B for full scenario). Manipulation checks were conducted by using t-tests. The measurement items and values are presented in Table 8. The results showed that differences between environmental sustainability levels and differences between price levels were both significant. Mean scores for each group were consistent with the intended manipulation grouping (Mhigh environmental sustainability=6.52 > Mlow environmental sustainability=1.30, p<0.001; Mhigh price=6.27 > Mlow price=1.30, p<0.001).

Table 8: Experiment One Manipulation Items Means, Standard Deviations

<table>
<thead>
<tr>
<th>Measurement Items (Scale Items)</th>
<th>Mean L/H</th>
<th>Std. Dev. L/H</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental Sustainability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manipulation</td>
<td></td>
<td></td>
<td>Choi and Ng (2011)</td>
</tr>
<tr>
<td>Retailer A has an excellent</td>
<td>1.28/6.53</td>
<td>0.57/0.64</td>
<td></td>
</tr>
<tr>
<td>environmental record.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retailer A operates in</td>
<td>1.33/6.51</td>
<td>0.61/0.68</td>
<td></td>
</tr>
<tr>
<td>environmentally sustainable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>manner.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Price Manipulation</strong></td>
<td></td>
<td></td>
<td>Choi and Ng (2011)</td>
</tr>
<tr>
<td>Products provided by Retailer A</td>
<td>1.26/6.45</td>
<td>0.52/0.70</td>
<td></td>
</tr>
<tr>
<td>cost more than the other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>retailers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retailer A is an expensive</td>
<td>1.34/6.09</td>
<td>0.65/0.86</td>
<td></td>
</tr>
<tr>
<td>retailer.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The independent variables manipulated in the second experiment were social sustainability and price levels. Social sustainability levels were manipulated as high and low based on diversity, equal remuneration, local community contributions and other social business practices throughout the supply chain. Price levels were manipulated as high and low based on a comparison with other retailers’ price levels (see Appendix C for full scenario). The measurement items and values are presented in Table 9. Significant differences were found between social sustainability levels and between
price levels. Mean scores for each group shows the success of the manipulations (Mhigh social sustainability=6.52 > Mlow social sustainability=1.35, p<0.001; Mhigh price=6.34 > Mlow price=1.45, p<0.001). Overall, these results indicate that the manipulations were successful and worked as intended in both experiments.

Table 9: Experiment Two Manipulation Items Means, Standard Deviations

<table>
<thead>
<tr>
<th>Measurement Items (Scale Items)</th>
<th>Mean L/H</th>
<th>Std. Dev. L/H</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sustainability Manipulation</td>
<td></td>
<td></td>
<td>Choi and Ng (2011)</td>
</tr>
<tr>
<td>Retailer A has an excellent social record.</td>
<td>1.31/6.47</td>
<td>0.49/0.73</td>
<td></td>
</tr>
<tr>
<td>Retailer A operates in socially sustainable manner.</td>
<td>1.38/6.57</td>
<td>0.58/0.61</td>
<td></td>
</tr>
<tr>
<td>Price Manipulation</td>
<td>Choi and Ng (2011)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Products provided by Retailer A cost more than the other retailers.</td>
<td>1.38/6.57</td>
<td>0.59/0.56</td>
<td></td>
</tr>
<tr>
<td>Retailer A is an expensive retailer.</td>
<td>1.52/6.12</td>
<td>0.73/0.85</td>
<td></td>
</tr>
</tbody>
</table>

Realism checks were also performed to determine if the scenarios were perceived by the subjects to be realistic (Louviere, Henser, and Swait 2000). Realism check items were adapted from Dabholkar (1994). The participants were asked if the situation described in the scenario was realistic and if they could imagine themselves in the described situation. The average responses to these questions were 5.77 in the first experiment and 5.67 in the second experiment (both on a 7-point scale). Dabholkar (1994) stated that a score around 6 on a 7-point likert scale can be judged to be extremely realistic. Therefore, it is concluded that participants considered the scenarios to be realistic in both experiments.
Main Analysis of the First Experiment

In order to test the hypotheses in the two experiments, a multivariate analysis of variance (MANOVA) was conducted. As hypothesized, statistically significant main effect of environmental sustainability (Wilks’ lambda = 0.636; F = 23.92; p < 0.001) was observed. A univariate analysis was performed to determine the sources of the effect. The overall univariate result for the first experiment is presented in Table 10.

Table 10: Univariate Results for Main and Interaction Effects – First Experiment

<table>
<thead>
<tr>
<th>Effects</th>
<th>Purchase Intention F-statistic</th>
<th>Commitment F-statistic</th>
<th>Satisfaction F-statistic</th>
<th>Loyalty F-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Sustainability (ES)</td>
<td>63.65 (p&lt;0.001)</td>
<td>57.58 (p&lt;0.001)</td>
<td>68.35 (p&lt;0.001)</td>
<td>65.63 (p&lt;0.001)</td>
</tr>
<tr>
<td>Culture (CU)</td>
<td>4.05 (p=0.046)</td>
<td>0.15 (p=0.699)</td>
<td>0.34 (p=0.560)</td>
<td>0.07 (p=0.790)</td>
</tr>
<tr>
<td>Price (P)</td>
<td>31.75 (p&lt;0.001)</td>
<td>46.15 (p&lt;0.001)</td>
<td>50.47 (p&lt;0.001)</td>
<td>50.22 (p&lt;0.001)</td>
</tr>
<tr>
<td>ES x CU</td>
<td>0.23 (p=0.635)</td>
<td>0.00 (p=0.989)</td>
<td>0.02 (p=0.892)</td>
<td>0.01 (p=0.924)</td>
</tr>
<tr>
<td>ES x P</td>
<td>3.38 (p=0.068)</td>
<td>9.58 (p=0.002)</td>
<td>16.50 (p&lt;0.001)</td>
<td>11.06 (p=0.001)</td>
</tr>
<tr>
<td>CU x P</td>
<td>2.59 (p=0.110)</td>
<td>2.11 (p=0.148)</td>
<td>4.69 (p=0.032)</td>
<td>3.95 (p=0.049)</td>
</tr>
<tr>
<td>ES x CU x P</td>
<td>0.03 (p=0.874)</td>
<td>0.11 (p=0.744)</td>
<td>0.12 (p=0.732)</td>
<td>0.50 (p=0.479)</td>
</tr>
</tbody>
</table>

The results revealed that an increase in environmental sustainability leads to an increase in purchase intention (F=63.65; p<0.01), consumer commitment (F=57.58; p<0.01), consumer satisfaction (F=68.35; p<0.01), and consumer loyalty (F=65.63; p<0.01). Therefore, H1a-d were supported.

The MANOVA results showed that there was no significant two-way interaction between environmental sustainability and culture (Wilks’ lambda = 0.996; F = 0.17; p =0.955), suggesting a lack of support for H3a-d. Finally, there was no significant three-
way interaction among environmental sustainability, culture, and price (Wilks’ lambda = 0.993; F = 0.29; p =0.883). Therefore, H5a-d were not supported.

The dependent variable cell means for experiment one are provided in Table 11. Table shows that purchase intention, consumer commitment, consumer satisfaction and consumer loyalty levels are higher in Turkey than in the USA when the price is low and environmental sustainability is high. When price and environmental sustainability are high, consumer commitment, consumer satisfaction and consumer loyalty levels are higher in the USA than in Turkey. This suggests that consumers in Turkey are more price conscious and prefer low prices and high environmental sustainability.

Table 11: Dependent Variable Cell Means For the First Experiment

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Price</th>
<th>Environmental Sustainability</th>
<th>Country</th>
<th>Mean</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Intention</td>
<td>Low</td>
<td>Low</td>
<td>Turkey</td>
<td>4.767</td>
<td>0.242</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>3.924</td>
<td>0.231</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Turkey</td>
<td>5.894</td>
<td>0.231</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>USA</td>
<td>5.254</td>
<td>0.237</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>Turkey</td>
<td>2.968</td>
<td>0.237</td>
</tr>
<tr>
<td></td>
<td></td>
<td>USA</td>
<td>2.617</td>
<td>0.242</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Turkey</td>
<td>4.697</td>
<td>0.231</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>USA</td>
<td>4.653</td>
<td>0.221</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>Low</td>
<td>Low</td>
<td>Turkey</td>
<td>4.713</td>
<td>0.238</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>4.545</td>
<td>0.227</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Turkey</td>
<td>5.739</td>
<td>0.227</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>USA</td>
<td>5.560</td>
<td>0.232</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>Turkey</td>
<td>2.595</td>
<td>0.232</td>
</tr>
<tr>
<td></td>
<td></td>
<td>USA</td>
<td>2.800</td>
<td>0.238</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Turkey</td>
<td>4.511</td>
<td>0.227</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>USA</td>
<td>4.917</td>
<td>0.217</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Low</td>
<td>Low</td>
<td>Turkey</td>
<td>4.950</td>
<td>0.210</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>4.727</td>
<td>0.200</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Turkey</td>
<td>5.943</td>
<td>0.200</td>
<td></td>
</tr>
</tbody>
</table>
Main Analysis of the Second Experiment

As hypothesized, a statistically significant main effect of social sustainability (Wilks’ lambda = 0.670; F = 21.33; p < 0.001) was observed. The overall univariate result for the second experiment is presented in Table 12.

Table 12: Univariate Results for Main and Interaction Effects – Second Experiment

<table>
<thead>
<tr>
<th>Effects</th>
<th>Purchase Intention F-statistic</th>
<th>Commitment F-statistic</th>
<th>Satisfaction F-statistic</th>
<th>Loyalty F-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sustainability (SS)</td>
<td>55.99 ( (p&lt;0.001) )</td>
<td>60.66 ( (p&lt;0.001) )</td>
<td>72.89 ( (p&lt;0.001) )</td>
<td>49.58 ( (p&lt;0.001) )</td>
</tr>
<tr>
<td>Culture (CU)</td>
<td>3.09 ( (p=0.081) )</td>
<td>0.73 ( (p=0.393) )</td>
<td>0.55 ( (p=0.458) )</td>
<td>0.70 ( (p=0.405) )</td>
</tr>
<tr>
<td>Price (P)</td>
<td>22.62 ( (p&lt;0.001) )</td>
<td>31.90 ( (p&lt;0.001) )</td>
<td>47.00 ( (p&lt;0.001) )</td>
<td>46.67 ( (p&lt;0.001) )</td>
</tr>
<tr>
<td>SS x CU</td>
<td>5.13 ( (p=0.025) )</td>
<td>0.00 ( (p=0.990) )</td>
<td>0.00 ( (p=0.976) )</td>
<td>1.21 ( (p=0.272) )</td>
</tr>
<tr>
<td>SS x P</td>
<td>0.29 ( (p=0.591) )</td>
<td>11.90 ( (p=0.001) )</td>
<td>15.86 ( (p=0.001) )</td>
<td>10.30 ( (p=0.002) )</td>
</tr>
<tr>
<td>CU x P</td>
<td>8.91 ( (p=0.003) )</td>
<td>3.84 ( (p=0.052) )</td>
<td>5.65 ( p=0.019 )</td>
<td>5.43 ( p=0.021 )</td>
</tr>
<tr>
<td>SS x CU x P</td>
<td>0.01 ( (p=0.933) )</td>
<td>0.07 ( (p=0.794) )</td>
<td>0.01 ( (p=0.916) )</td>
<td>0.69 ( p=0.409 )</td>
</tr>
</tbody>
</table>
The results showed that an increase in social sustainability leads to an increase in purchase intention (F=55.99; p<0.01), consumer commitment (F=60.66; p<0.01), consumer satisfaction (F=72.89; p<0.01), and consumer loyalty (F=49.58; p<0.01). Therefore, H2a-d were supported.

The results highlighted a significant two-way interaction between social sustainability and culture (Wilks’ lambda = 0.939; F = 2.72; p < 0.05). Additional univariate tests indicated a significant interaction effect of social sustainability and culture on purchase intention. However, the direction of the effect was different than predicted. As seen in Figure 1, an increase in social sustainability leads to a greater increase in purchase intention in individualist cultures (the USA) than in collectivist cultures (Turkey). This result is the opposite of what is hypothesized in H4a. There was also no significant interaction between social sustainability and culture that impacted the other dependent variables. Therefore, H4a-d were not supported. Finally, there was no significant three-way interaction among social sustainability, culture, and price (Wilks’ lambda = 0.993; F = 0.32; p =0.867). Therefore, H6a-d were not supported.
The dependent variable cell means for experiment two are provided in Table 13. This table displays that consumer commitment and consumer satisfaction levels are higher in Turkey than in the USA when the price is low and social sustainability is high. When price and social sustainability are high, purchase intention, consumer commitment, consumer satisfaction and consumer loyalty levels are higher in the USA than in Turkey. This may suggest that Turkish consumers want low prices and high social sustainability.
Table 13: Dependent Variable Cell Means For the Second Experiment

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Price</th>
<th>Social Sustainability</th>
<th>Country</th>
<th>Mean</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Intention</td>
<td>Low</td>
<td>Low</td>
<td>Turkey</td>
<td>4.540</td>
<td>0.275</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>3.773</td>
<td>0.268</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>Turkey</td>
<td>5.561</td>
<td>0.268</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>5.826</td>
<td>0.262</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>Turkey</td>
<td>2.635</td>
<td>0.275</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>3.117</td>
<td>0.281</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>Turkey</td>
<td>3.433</td>
<td>0.268</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>6.284</td>
<td>0.242</td>
</tr>
<tr>
<td>Commitment</td>
<td>Low</td>
<td>Low</td>
<td>Turkey</td>
<td>4.512</td>
<td>0.245</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>4.239</td>
<td>0.239</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>Turkey</td>
<td>2.742</td>
<td>0.245</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>2.775</td>
<td>0.251</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>Turkey</td>
<td>4.420</td>
<td>0.239</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>4.880</td>
<td>0.216</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Low</td>
<td>Low</td>
<td>Turkey</td>
<td>4.833</td>
<td>0.199</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>4.545</td>
<td>0.195</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>Turkey</td>
<td>5.795</td>
<td>0.195</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>5.543</td>
<td>0.191</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>Turkey</td>
<td>2.833</td>
<td>0.199</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>3.000</td>
<td>0.204</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>Turkey</td>
<td>5.951</td>
<td>0.195</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>5.102</td>
<td>0.176</td>
</tr>
<tr>
<td>Loyalty</td>
<td>Low</td>
<td>Low</td>
<td>Turkey</td>
<td>4.833</td>
<td>0.237</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>4.170</td>
<td>0.232</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>Turkey</td>
<td>5.364</td>
<td>0.232</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>5.478</td>
<td>0.227</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td>Turkey</td>
<td>2.982</td>
<td>0.237</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>2.713</td>
<td>0.243</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td>Turkey</td>
<td>4.136</td>
<td>0.232</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>USA</td>
<td>4.787</td>
<td>0.209</td>
</tr>
</tbody>
</table>
General Discussion

The purpose of this dissertation was to explore consumers’ perceptions of both environmental and social sustainability practices in different cultural contexts and price levels. Two experiments were employed in order to test the hypotheses. The first experiment examined the effects of environmental sustainability and the second experiment examined the effects of social sustainability on consumer behavior. Table 14 presents a summary of hypotheses and findings of this research.

Table 14: Summary of Outcomes for Hypotheses

<table>
<thead>
<tr>
<th>#</th>
<th>Hypothesis</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>a) An increase in environmental sustainability leads to an increase in consumer purchase intention.</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>b) An increase in environmental sustainability leads to an increase in consumer commitment.</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>c) An increase in environmental sustainability leads to an increase in consumer satisfaction.</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>d) An increase in environmental sustainability leads to an increase in consumer loyalty.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>a) An increase in social sustainability leads to an increase in consumer purchase intention.</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>b) An increase in social sustainability leads to an increase in consumer commitment.</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>c) An increase in social sustainability leads to an increase in consumer satisfaction.</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>d) An increase in social sustainability leads to an increase in consumer loyalty.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>a) An increase in environmental sustainability leads to a greater increase in purchase intention in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>b) An increase in environmental sustainability leads to a greater increase in consumer satisfaction in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>c) An increase in environmental sustainability leads to a greater increase in consumer commitment in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>H4</strong></td>
<td>a) An increase in social sustainability leads to a greater increase in purchase intention in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>b) An increase in social sustainability leads to a greater increase in consumer satisfaction in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>c) An increase in social sustainability leads to a greater increase in consumer commitment in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>d) An increase in social sustainability leads to a greater increase in consumer loyalty in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>H5</strong></td>
<td>a) An increase in price leads to a greater decrease in the effect of environmental sustainability on purchase intention in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>b) An increase in price leads to a greater decrease in the effect of environmental sustainability on consumer commitment in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>c) An increase in price leads to a greater decrease in the effect of environmental sustainability on consumer satisfaction in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>d) An increase in price leads to a greater decrease in the effect of environmental sustainability on consumer loyalty in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>H6</strong></td>
<td>a) An increase in price leads to a greater decrease in the effect of social sustainability on purchase intention in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>b) An increase in price leads to a greater decrease in the effect of social sustainability on consumer commitment in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>c) An increase in price leads to a greater decrease in the effect of social sustainability on consumer satisfaction in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
<tr>
<td></td>
<td>d) An increase in price leads to a greater decrease in the effect of social sustainability on consumer loyalty in collectivist cultures than in individualist cultures.</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>
In the first experiment, a significant main effect of environmental sustainability on consumer behavior was observed. As predicted in H1a-d, with a high level of environmental sustainability, the experimental data suggests that consumer purchase intention, consumer commitment, consumer satisfaction, and consumer loyalty all increase. In the second experiment, a significant main effect of social sustainability on consumer behavior was observed. As predicted in H2a-d, the experimental data suggests that a high level of social sustainability leads to an increase in consumer purchase intention, consumer commitment, consumer satisfaction, and consumer loyalty. These results replicate the findings in the literature. Previous studies also found a positive relationship between a company’s sustainability practices and consumers’ purchase intention (Kim and Choi 2005; Mohr and Webb 2005; Stall-Meadows and Hebert 2011), commitment (Lichtenstein et al. 2004; Fraj-Andrés et al. 2009), satisfaction (Park and Tahara 2008; Schreck 2011; Hsu 2012) and loyalty (Gupta and Pirsch 2008; Kirchoff et al. 2011; Stanaland et al. 2011).

H3a-d, H4a-d, H5a-d, and H6a-d were not supported mainly because there was no significant difference between individualist and collectivist consumers. As hypothesized in H4a, a significant interaction effect of social sustainability and culture on purchase intention was observed; however, the result was different than predicted. The data suggests that an increase in social sustainability leads to a greater increase in purchase intention in individualist cultures than in collectivist cultures. Previous studies have supported this finding suggesting that in individualist countries, consumers tend to punish firms more often for irresponsible corporate behavior than those in countries in which collective attitudes are more prevalent (Williams and Zinkin 2008).
H3a-d, H4a-d, H5a-d, and H6a-d were not supported in anticipating a significant difference between individualist and collectivist consumers. Even though there was a statistically significant difference in the level of collectivism of the two countries, perhaps the difference is not big enough to have an impact. This may suggest that U.S. students are becoming more collectivist as opposed to individualist as claimed by Hofstede (2001). This result is in line with previous studies. Chen et al. (2006) and Parker et al. (2009) found a shift in U.S. students toward higher levels of collectivism. Another reason may be that the culture variable used in this study does not impact sustainability.

Future studies should look at other culture variables that may moderate the impact of sustainability on purchase intention, consumer commitment, consumer satisfaction, and consumer loyalty. In addition to the main analysis, post hoc analyses were conducted to further explore the two-way interactions between culture, price and environmental and social sustainability.

First Experiment Post Hoc Analysis

Although not hypothesized, significant interaction effects of environmental sustainability and price on consumer commitment (F=9.58; \( p=0.002 \)), consumer satisfaction, (F=16.50; \( p<0.001 \)), and consumer loyalty (F=11.06; \( p=0.001 \)), were observed. As seen in Figure 2, at high environmental sustainability levels, low prices will lead to higher consumer commitment, consumer satisfaction, and consumer loyalty. Therefore, the experimental results suggest that high environmental sustainability and a low price strategy will lead to an increase in consumers’ commitment, satisfaction, and loyalty levels. Previous studies have supported this finding, suggesting that consumers would choose the product from an environmentally friendly company unless the price of
the product is low or equal to other options (Devinney 2009; Luchs et al. 2010; Gleim et al. 2013).

Figure 2: Two-way Interaction of Environmental Sustainability and Price

![Diagram showing the interaction between Environmental Sustainability and Price on Consumer Commitment and Consumer Satisfaction.](image)
Additionally, significant interaction effects of culture and price on consumer satisfaction (F=4.69; p=0.032) and consumer loyalty (F=3.95 (p=0.049) were observed. As seen in Figure 3, in collectivist countries low prices lead to higher consumer satisfaction and consumer loyalty than in individualist countries. This finding suggests that high prices have a more negative effect on consumer satisfaction and consumer loyalty in collectivist countries. This result replicates the earlier findings of Wickliffe and Pysarchik (2001) and Nguyen et al. (2014). Wickliffe and Pysarchik (2001) found that collectivist consumers place more importance on price than individualist consumers when selecting a product. Nguyen et al. (2014) revealed that price impacts the collectivist consumers more than individualist consumers.
Figure 3: Two-way Interaction of Culture and Price

**Consumer Satisfaction**

![Graph showing consumer satisfaction levels for Turkey and USA at low and high prices.]

**Consumer Loyalty**

![Graph showing consumer loyalty levels for Turkey and USA at low and high prices.]

- **Turkey**
- **USA**
Second Experiment Post Hoc Analysis

Additionally, I observed post-hoc significant interaction effects of social sustainability and price on consumer commitment (F=11.90; \( p=0.001 \)), consumer satisfaction (F=15.86; \( p<0.001 \)), and consumer loyalty (F=10.30; \( p=0.002 \)). As seen in Figure 4, at high social sustainability levels low prices will lead to high consumer commitment, consumer satisfaction, and consumer loyalty. This finding suggests that high social sustainability and a low-price strategy will lead to an increase in consumers’ commitment, satisfaction, and loyalty levels. Previous studies have supported these findings suggesting that consumers consider switching to retailers or brands associated with a social cause unless the price is low or equal to other options (Johri and Sahasakmontri 1998; Ellen et al. 2000).

Figure 4: Two-way Interaction of Social Sustainability and Price
Significant interaction effects of culture and price also were observed on consumer purchase intention ($F=8.91; p=0.003$), consumer satisfaction ($F=5.65; p=0.019$), and consumer loyalty ($F=5.43; p=0.021$). As seen in Figure 5, in collectivist countries, low prices lead to higher purchase intention, consumer satisfaction and consumer loyalty than in individualist countries. Therefore, the experimental results suggest that collectivist consumers are more price sensitive than individualist consumers. Additionally, high prices have a more negative effect on consumer satisfaction and consumer loyalty in collectivist countries. This result is in line with previous studies suggesting that compared to individualist consumers, collectivist consumers are more price conscious (Ackerman and Tellis 2001; Jin and Sternquist 2003).

Figure 5: Two-way Interaction of Culture and Price
Consumer Satisfaction

![Graph showing consumer satisfaction against price for Turkey and USA](image)

Consumer Loyalty

![Graph showing consumer loyalty against price for Turkey and USA](image)
CHAPTER 5
CONCLUSIONS AND IMPLICATIONS

This chapter discusses the implications of this research for scholars and managers, assesses the limitations of the dissertation, and identifies future research directions. First, research contributions and theoretical implications are discussed. Second, managerial implications are assessed based on the empirical findings from both experiments. Finally, research limitations and future research opportunities are presented.

Research Contributions

As discussed in Chapter 1, the exploration of the effects of sustainability on consumer behavior makes several contributions to the body of knowledge in the supply chain management field. First, as defined by Mentzer et al. (2001, pg. 4) a supply chain is “a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer.” Other concepts also consider final consumers as a member of supply chain (e.g. Cooper and Ellram 1993; La Londe and Masters 1994; Lambert et al. 1998, Mentzer et al. 2001). However, exchange relationship analysis with consumers has been neglected in supply chain research (Bask et al. 2013) and there were future research calls to examine consumers’ perceptions in a supply chain context (e.g. Atasu et al. 2008, Giunipero et al. 2008). This dissertation provides a better understanding of consumer behavior in the supply chain context. The results showed
that environmental and social sustainability both have a positive impact on consumers’ purchase intention, commitment, satisfaction, and loyalty.

Second, although environmental sustainability has been studied in the supply chain management context, research is lacking in the social aspect of sustainability (Pagell and Wu 2009; Pfeffer 2010; Wolf and Seuring 2010). Changes in consumer demand have forced companies to pay more attention to the social dimension of sustainability. There are just a few studies though that have examined social sustainability issues. Some previous studies examined the effect of socially responsible practices (i.e., Ehrgott et al. 2011, Simola 2012, Carrington et al. 2014), but few presented their effects on consumer perceptions. Moreover, most studies completely ignored the price aspect of social sustainability. This study provides a better understanding of a neglected dimension of sustainability and its interaction with price.

Third, the current research contributes to the supply chain management literature by providing a greater understanding of the potential effects of individualist and collectivist cultural differences. Culture is a distinctive factor of consumer behavior. Consumers’ perceptions of sustainability practices vary based on cultural differences. An unexpected experimental finding in this study revealed that an increase in social sustainability leads to a greater increase in purchase intention in individualist cultures than in collectivist cultures.

Fourth, this study highlights the importance of price in individualist and collectivist culture. The results shed light on how consumers react to different levels of price. The experimental results suggest that collectivist consumers are more price sensitive than individualist consumers. The results also show that high environmental sustainability or
social sustainability and a low price strategy will lead to an increase in consumers’ commitment, satisfaction, and loyalty levels.

Finally, although experimental methodology has been used extensively in other disciplines, it is one of the most underdeveloped areas in the supply chain management field (Tokar 2010; Waller and Fawcett 2011). There are many calls of other researchers for more behavioral experiments (e.g., Eckerd and Bendoly 2011; Thomas 2011; Deck and Smith 2013). This dissertation answers calls for experiments with human subjects and makes a methodological contribution to the supply chain management research by utilizing two scenario-based experiments. These behavioral experiments allowed testing of theories and enabled the examination of a cause-and-effect relationship. Table 15 lists the research contributions of this dissertation.
### Table 15: Research Contributions

<table>
<thead>
<tr>
<th>Experiment</th>
<th>Research Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment One</td>
<td>- High environmental sustainability and a low price is an optimal strategy.</td>
</tr>
<tr>
<td>Environmental Sustainability</td>
<td>- High prices have a more negative effect on consumer satisfaction and consumer loyalty in collectivist countries.</td>
</tr>
<tr>
<td>Experiment Two</td>
<td>- Provides better understanding of a neglected dimension of sustainability.</td>
</tr>
<tr>
<td>Social Sustainability</td>
<td>- High social sustainability and a low price is an optimal strategy.</td>
</tr>
<tr>
<td></td>
<td>- High prices have a more negative effect on consumer satisfaction and consumer loyalty in collectivist countries.</td>
</tr>
<tr>
<td></td>
<td>- Collectivist consumers are more price sensitive comparing to individualist consumers.</td>
</tr>
<tr>
<td>Combined</td>
<td>- Provides a greater understanding of consumers’ behavior as part of supply chain.</td>
</tr>
<tr>
<td></td>
<td>- Highlights potential effects of individualist and collectivist culture differences.</td>
</tr>
<tr>
<td></td>
<td>- Shows the importance of price in individualist and collectivist culture.</td>
</tr>
<tr>
<td></td>
<td>- Utilizes experimentation method which is an emerging method in supply chain management research.</td>
</tr>
</tbody>
</table>

### Theoretical Implications

This dissertation empirically tested Social Exchange Theory (SET) and Theory of Reasoned Action (TRA). According to SET and its reciprocity tenet, parties engage in and maintain relationships with the expectation of rewarding social benefits (Thibaut and Kelley 1959; Gassenheimer et al. 1998). The basic assumption of Social Exchange Theory (SET) is that individuals engage in an exchange relationship when they receive a social benefit from other parties (Blau 1964). The basic motivation for interaction is minimizing the costs and maximizing the rewards (Emerson 1976). In an exchange relationship, companies will be rewarded with higher levels of purchase intention, consumer commitment, consumer satisfaction, and consumer loyalty by adopting
sustainability practices (Creyer and Ross 1997; Mohr et al. 2001; Pirsch et al. 2007; Gupta and Pirsch 2008). The results of this dissertation suggest that an increase in either environmental or social sustainability leads to an increase in purchase intention, consumer commitment, consumer satisfaction, and consumer loyalty. Therefore, the findings of this dissertation are consistent with these SET assumptions. As the theory predicts, when a retailer meets the expectations of consumers by providing sustainable products, consumers feel obligated to reciprocate and hold a positive attitude towards the retailer.

This dissertation also tested TRA by examining how culture and price affect consumer behavior and purchase intention. TRA has two main components: the attitude toward the behavior and subjective norm (Ajzen and Fishbein 1973). Attitude toward the behavior refers to an individual’s positive or negative feeling for that behavior and subjective norm refers to an individual’s perception of the social pressure regarding whether to perform or not to perform the behavior (Ajzen and Fishbein 1980). These two antecedents lead to the actual behavior (Ajzen and Fishbein 1980). As the theory suggests, consumers’ behavior and purchase intentions are based on their sensitivity to price, perception of sustainability and cultural environment. The results showed that high environmental or social sustainability and low price strategies lead to an increase in consumers’ commitment, satisfaction, and loyalty levels. Therefore, from one perspective, the results were in line with the TRA assumptions as the consumers are in favor of sustainable and low priced products. However, there also might be some factors that weaken TRA’s attitude-behavior relationship assumption. For example,
environmental pressures and socio-economic differences can cause an attitude-behavior gap (Babin and Harris 2014).

The findings of this dissertation suggest that there is a significant difference in the level of collectivism between the Turkey and USA samples. However, this cultural difference is not significant in moderating the impact of sustainability on the dependent variables. Therefore, four of the hypotheses were rejected. That does not mean that the theoretical underpinnings of the research should be questioned, since none of the theories are based on the cultural differences. Another point is that previous studies found that TRA works best for individualist countries. For example, Bagozzi et al. (2000) found that mean scores of attitudes and subjective norms constructs are significantly higher for individualist consumers compared to collectivist consumers. Therefore, there is a need for more testing of these theories, and different theories may be also required to explain the moderating effect of culture on consumer behavior.

Managerial Implications

The exploration of the effects of environmental and social sustainability and price on consumer behavior has several managerial implications. Supply chain managers need to be aware of the increasing demand from consumers for environmentally and socially sustainable practices. The findings suggest that environmental and social sustainability practices trigger consumers’ purchase intention and increase consumers’ commitment, satisfaction, and loyalty. Specifically, firms may use this information to develop strategies for improving supplier performance and customer satisfaction. Understanding consumer expectations, being responsive to the needs of consumers,
and adjusting products and services offered are all important in building consumer value (Kotler and Keller 2012). Therefore, companies should be responsive to consumer demands and implement sustainability practices into supply chain operations.

Another finding that has implications for managers is that consumers would like to get low-priced sustainable products. Experimental results revealed that high environmental or social sustainability and a low price strategy lead to an increase in consumers’ commitment, satisfaction, and loyalty levels. Practitioners can benefit from this research by formulating business strategies based on low priced-sustainable products. Previous studies also found that consumers prefer sustainable products but don’t want to pay a price premium (Johri and Sahasakmontri 1998; Gleim et al. 2013). Therefore, managers should look for ways to offer sustainable, but also low priced products and services.

This research highlighted the importance of price in individualist and collectivist cultures. The findings showed that high prices have a more negative effect on purchase intention, consumer satisfaction and consumer loyalty in collectivist countries. This finding is particularly important as the main challenge for managers is to balance the demand for and cost of sustainability practices. If customers are not willing to pay higher prices for sustainable products, managers need to reconsider implementing costly sustainability practices.

This study also found that an increase in social sustainability leads to a greater increase in purchase intention in individualist cultures (the USA) than in collectivist cultures (in Turkey). Individualist consumers are more interested in socially sustainable products than collectivist consumers. Therefore, supply chain managers need to
recognize that social sustainability practices are perceived as more important by individualist consumers. Companies also need to formulate contingent strategies based on the cultural context of the country in which they operate.

Another potential implication for managers relates to Millennials. Millennials (Generation Y) are defined as individuals born between 1980 and 2000 (Gloeckler 2008). This research examined this population in terms of culture. In line with previous studies (e.g. Gunelius 2008; Barber et al. 2010; Kerin et al. 2013), this study found that Millennials are highly interested in environmental and social sustainability. The findings suggest that Millennials would like to buy sustainable products from retailers but at a low price. With this insight, managers may need to reconsider marketing tactics directed at Millennials.

Limitations and Future Research

This dissertation provided a better understanding of consumers’ perceptions of sustainability in different cultural contexts by conducting two experiments. There are several limitations and corresponding future research opportunities for the two experiments done in this study. The results of this research suggest many research and managerial implications. However, there are several limitations and corresponding future research opportunities of this study.

All research methods have strengths and weaknesses. McGrath (1981) referred this the three-horned dilemma. According to the three-horned dilemma, it is not possible to maximize generalizability, precision/control, and realism at the same time in one study (McGrath 1981). By utilizing two scenario-based behavioral experiments, this
research was able to address precision and control. However, the main weakness of this study is the generalizability of the results. Survey research is able to maximize the generalizability of the findings. Thus, a future survey study might be better suited for offering generalizable results. As explained in the next paragraphs, future surveys may be conducted in different countries by using an adult sample.

Globally, millennials constitute a large group of consumers. Using Millennials as a sample provides valuable insights into their perceptions of sustainability. However, use of millennials as subjects is another limitation of this study. The respondents in this study are college students and do not represent a wide group of consumers. College students may also vary less in demographics such as income, than older adults. This problem might impact the variability of responses. Therefore, future research should use a sample that represents a wider range of age.

In this dissertation, I collected data from one individualist country and one collectivist country. It is uncertain how consumers in different individualist and collectivist countries might perceive the environmental and social sustainability practices of companies. In the literature, most of the cultural studies collected samples from the USA as an individualist country. Therefore, collecting samples from a different individualist country such as a western European country would be an interesting future research direction to see if an individualistic pattern extends beyond the USA.

Another issue is that this study looked at just one dimension of culture, individualism versus collectivism. As Hofstede (2013) indicated, there are five more culture dimensions namely, power distance, masculinity versus femininity, uncertainty avoidance, long-term orientation, and indulgence versus restraint. Specifically, previous
studies found that power distance and masculinity versus femininity are tightly related to sustainability (Husted 2005). In societies with high power distance, loyalty to superiors is very important and decisions are not made on the basis of merit (Husted 2005, Hofstede 2013). Another dimension, masculinity, represents a preference for material success as opposed to a preference for quality of life. Thus, greater insights may be gained by examining these two culture dimensions in different countries. Consequently, while this research examined consumers’ perceptions of environmental and social sustainability in an individualist and a collectivist country in the supply chain context, more research is needed to examine consumer’s perceptions of supply chain sustainability and how it impacts their attitudes and behaviors in different cultures.
REFERENCES


APPENDIX A

2x2x2 Experimental Design

**Individualist**

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

**Collectivist**

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

**Individualist**

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Sustainability</strong></td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

**Collectivist**

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Sustainability</strong></td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>
APPENDIX B
Experiment One Directions and Scenarios

Directions
In the following scenario, a typical consumer's purchasing situation is described. Assume all scenario descriptions are accurate and trustworthy. After you read the scenario, please answer each question. As you answer each question, predict how the typical consumer would act in this type of situation. Please do not base your answers on how you think the typical consumer should approach the situation, but rather on how the typical consumer actually would approach the situation. Imagine that a consumer will shop from a retail store and is facing a choice among several alternatives. All retailers provide similar levels of customer service.

Environmental sustainability scenario manipulations
High environmental sustainability
Compared to the other retailers that the consumer is considering, Retailer A has made large investments in green business practices and was rated as having the best environmental record in the market. For example Retailer A’s retail stores pollute less than other retailers in the market. Retailer A reduces greenhouse gas emissions, aims to minimize waste, has a more environmentally friendly private fleet of trucks, is supplied by renewable energy and enforces environmental sustainability practices throughout their supply chain.

Low environmental sustainability
Compared to the other retailers that the consumer is considering, Retailer A has made no investments in green business practices and was rated as having a low environmental record in the market. For example Retailer A’s retail stores pollute more than other retailers in the market. Retailer A increases greenhouse gas emissions, does not aim to minimize waste, has a less environmentally friendly private fleet of trucks, is not supplied by renewable energy and does not enforce environmental sustainability practices throughout their supply chain.

Pricing scenario manipulations
High price
Retailer A is one of several retail options that one can shop at. Retailer A has been in business for more than 20 years and offers consumers a wide selection of brands. The price levels for the products that Retailer A offer are higher than the other retailers. Therefore, the Retailer A pricing is above average.

Low price
Retailer A is one of several retail options that one can shop at. Retailer A has been in business for more than 20 years and offers consumers a wide selection of brands. The price levels for the products that Retailer A offer are lower than the other retailers. Therefore, the Retailer A pricing is below average.
APPENDIX C

Experiment Two Directions and Scenarios

Directions

In the following scenario, a typical consumer’s purchasing situation is described. Assume all scenario descriptions are accurate and trustworthy. After you read the scenario, please answer each question. As you answer each question, predict how the typical consumer would act in this type of situation. Please do not base your answers on how you think the typical consumer should approach the situation, but rather on how the typical consumer actually would approach the situation. Imagine that a consumer will shop from a retail store and is facing a choice among several alternatives. All retailers provide similar levels of customer service.

Social sustainability scenario manipulations

High social sustainability

Compared to the other retailers that the consumer is considering, Retailer A has made large investments in social business practices and was rated as having the best social sustainability record in the market. For example Retailer A is known for providing diversity and equal opportunity among its workforce and equal remuneration for women and men, contributes to the local communities and enforces social sustainability practices throughout their supply chain. Retailer A also enhances consumer health and safety and is known for making donations to charities.

Low social sustainability

Compared to the other retailers that the consumer is considering, Retailer A has made no investments in social business practices and was rated as having a low social sustainability record in the market. For example Retailer A is not known for providing diversity and equal opportunity among its workforce and equal remuneration for women and men, does not contribute to the local communities and does not enforce social sustainability practices throughout their supply chain. Retailer A does not enhance consumer health and safety and is not known for making donations to charities.

Pricing scenario manipulations

High price

Retailer A is one of several retail options that one can shop at. Retailer A has been in business for more than 20 years and offers consumers a wide selection of brands. The price levels for the products that Retailer A offer are higher than the other retailers. Therefore, the Retailer A pricing is above average.

Low price

Retailer A is one of several retail options that one can shop at. Retailer A has been in business for more than 20 years and offers consumers a wide selection of brands. The price levels for the products that Retailer A offer are lower than the other retailers. Therefore, the Retailer A pricing is below average.
APPENDIX D

Experiment One And Two Dependent And Manipulation Check Variables

Purchase Intention (Adapted from Dodds et al. 1991)

- The typical consumer's willingness to purchase from this retailer is very high.
- The typical consumer is very likely to purchase from this retailer.
- The probability that the typical consumer would consider purchasing from this retailer is very high.

Consumer Commitment (Adapted from Beatson et al. 2006)

- The typical consumer would plan to return to this retailer.
- The typical consumer's relationship with this retailer is something the consumer intends to maintain.
- The typical consumer's relationship with this retailer will last a long time.
- Maintaining a long term relationship with this retailer is important to the typical consumer.

Consumer Satisfaction (Adapted from Sung and Choi 2010)

- The typical consumer feels satisfied with the relationship with this retailer.
- The typical consumer's relationship with this retailer does a good job of fulfilling the consumer's needs.
- The typical consumer's relationship with this retailer makes the consumer very happy.
- The typical consumer's relationship with this retailer is close to ideal.

Consumer Loyalty (Adapted from Yang and Peterson 2004)

- The typical consumer would say positive things about the retailer to other people.
- The typical consumer would recommend the retailer to those who seek the consumer's advice about such matters.
- The typical consumer would encourage friends and relatives to buy from the retailer.
- The typical consumer would post positive messages about the retailer on some Internet message board.
- The typical consumer intends to continue to do business with the retailer.
- The typical consumer intends to do more business with the retailer.
**Manipulation check questions (Adapted from Choi and Ng 2011)**

- Products provided by Retailer A cost more than the other retailers.
- Retailer A is an expensive retailer.
- Retailer A has an excellent environmental record.
- Retailer A operates in an environmentally sustainable manner.
- Retailer A has an excellent social record.
- Retailer A operates in a socially sustainable manner.

**Realism check questions (Adapted from Dabholkar 1994)**

- The situation described in the scenario was realistic.
- I can imagine myself in the described situation.