ABSTRACT


The issue of sustainability has attracted increasing attention in recent years. The term sustainability means different things to different people, but in essence, it is the idea that systems (economic, environmental, and societal), including natural and human ones, need to be regenerative and balanced in order to last. With the rising prominence of the green movement, there is a need to develop the marketing literature specifically to understand the efficacy of green marketing strategies. Since sustainability is a relatively new phenomenon there is a lack of academic literature that provides insight into the impact of different sustainability initiatives on various aspects of consumer behavior.

The purpose of the current research is twofold. One, this research presents a framework to establish an understanding of the strategic benefits of sustainability initiatives by exploring relationships between different consumer outcomes. Second, the research empirically examines the manner that different sustainability initiatives impact perception of consumer value. This empirical study provides insight into the relative influence of three types of sustainability initiatives (“people”, “product” and “planet”) on perception of two primary consumer values: Utilitarian (Functional, Price-purchase, Environmental) and Hedonic (Social, Emotional). Results suggest that with the exception of Functional Value, different sustainability initiatives have varying levels of impact on the Environmental, Price-purchase, Social, and Emotional Value. This study provides a contribution to the existing theoretical literature in the sustainability and green marketing strategies area for the textile and apparel industry with specific practical implications for marketers of green products.
The Impact of Sustainability Initiatives on the Perception of Consumer Value

by
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♥

To my wonderful family, teachers and friends

for their loving support and understanding
BIOGRAPHY

Dnyanada Satam, born and raised in Mumbai, India received her Bachelor of Science degree from University Institute of Chemical Technology in Fibers and Textile Processing Technology with a concentration in Textile Chemistry in 2007. Aspiring to pursue her education at a highly reputed institution, she joined NCSU, and earned her Master of Science degree in Textile Technology Management from the College of Textiles with a co-minor in Textile Engineering and Statistics in 2009. During the Master’s program, Dnyanada worked as a Market Development and Applied Research Intern at INVISTA S.à.r.l.

In Fall 2009, Dnyanada decided to pursue her Ph.D. in Textile Technology Management. She started her doctoral study as a Research Assistant from the Fall 2009 semester until the Fall 2010 semester when she began working as a Teaching Assistant. She has been an Instructor and Teaching Assistant for three courses over four semesters. Meanwhile, to hone her Marketing Research skills, she did a market research project with Walmart in Summer 2010 and interned as Global Supply-chain Marketing Intern at Cotton Incorporated in Summer 2011. Dnyanada’s current research interests focus on understanding the impact of sustainability on consumer behavior in the textile and apparel industry. Upon graduation, she will be working as a Project Associate, Sustainability Marketing with Cotton Incorporated’s Global Supply Chain Marketing Division.
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Chapter 1

Introduction

The issue of sustainability has attracted increasing attention in the recent years. The term sustainability means different things to different people, but in essence, it’s the idea that systems (economic, environmental, societal, and personal), including natural and human ones, need to be regenerative and balanced in order to last. One of the best-known general definitions for sustainability comes from a 1987 United Nations report on sustainable development, which defines the concept as *development meeting the needs of the present without compromising the ability of future generations to meet their own needs*.

Recent economic and environmental crises have led most of the companies to transform the way they do business. While the recession is forcing every company to consider bottom line improvements and more competitive practices, social and environmental challenges are also creating an urgent need to integrate sustainability at every stage of business. Furthermore, there is growing pressure from varied sources including consumers, customers, investors, and a range of stakeholders demanding greater transparency and traceability in both businesses’ core manufacturing centers and throughout entire supply chains. For all industries and companies of all sizes, the winners in the near future would be those who will treat sustainability as a goal of today. It is very important for companies to get
involved in the quest for sustainability and make it an integral aspect of the supply chain from the point of source to consumer end-use. For businesses, sustainability is a powerful and defining idea: *a sustainable corporation is one that creates profit for its shareholders while protecting the environment and improving the lives of those with whom it interacts* (Horrigan, 2010).

Currently, industry analysts and executives use the terms “sustainability” and “Corporate Social Responsibility” (CSR) interchangeably. Since the early 1990s, people have become more conscious of their social environment and welfare which leads to increased consumer expectations for CSR (Park, 2001), thus, creating opportunities for businesses that engage in CSR to connect with their respective markets. This position is supported by several marketing studies which find that social responsibility programs significantly influence several customer-related outcomes: purchasing decisions (Mohr, Webb and Harris, 2001), attitude towards firms (Sen and Bhattacharya, 2001), willingness to pay higher prices for a firm’s product (Creyer and Ross, 1997), and consumer patronage (Bhattacharya and Sen, 2004).

Previous studies have also linked improved environmental performance to greater financial performance, competitiveness, and innovation benefits (Kassinis and Vafeas, 2006; King and Lenox, 2002; Klassen and Whybark, 1999; Majumdar and Marcus, 2001). Porter (1985) conceptualized the idea of customer value being the key to a firm’s profitability and its impact on a firm’s competitive advantage. Woodruff (1997) suggests that firms are increasingly adopting a more “outward orientation” to gain competitive advantage which
involves company focus towards customer needs. Thus, in today’s competitive market, strategists believe in redirecting a firm’s attention from itself to consumers, providing enhanced customer value.

The apparel industry has been criticized in the past for its involvement in socially irresponsible practices around the world. In particular, US apparel manufacturers and retailers who have been involved in business practices that employ sweatshops and child labor, especially in third world countries, are considered socially irresponsible. Negative publicity and consumer pressure drive the need for textile firms to develop business strategy that facilitates socially responsible practices (Dickson, 2000; Kim, Littrell and Ogle, 1999). With growing understanding of sustainability as a business differentiator in the near future, many top companies, including Levi Straus, Gap, and Nike, are incorporating product lines that focus on eco fashion. Many apparel companies feel the need to support the green marketing concept to appeal to the growing segment of eco-friendly consumers.

Considerable research has been carried out to understand the antecedents to the formation of consumer value. However, there is a lack of research in the textile and apparel industry related to the impact of sustainability on the formation of consumer value from a marketing strategy perspective. The main focus of this study is to establish an understanding of the influence of different sustainability initiatives marketed by firms on consumer value perception. The central hypothesis of this research is to understand how consumers perceive value related to different levels of sustainability initiatives implemented by textile firms in the marketplaces.
Purpose of this Study

The purpose of the current study is twofold. First, it presents an integrated conceptual framework developed on the basis of rigorous literature review to provide a broad overview of how sustainability initiatives marketed by companies potentially impact consumers. Second, the research empirically examines the manner that different sustainability initiatives impact perception of consumer value. The research objectives include:

Research Objective I: To conduct a literature review that investigates the influence of sustainability on different consumer outcomes by examining the relationship between sustainability initiatives and customer loyalty, attitude, satisfaction, and consumer value.

Research Objective II: To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on the perception of consumer value.

Research Objective II(a): To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on the perception of three different types of utilitarian values: Functional, Environmental and Price-purchase.

Research Objective II(b): To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on the perception of two different types of hedonic values: Emotional and Social.
This research will establish an understanding of the strategic benefits of sustainability initiatives by providing insight into the outcomes of these initiatives from the consumer behavior perspective. The linkages between sustainability initiatives, customer satisfaction, and market value and also the constructs that potentially moderate and mediate these relationships will be explored. Conceptual direction for the review is taken from the broader marketing strategy and management literatures to inform firms in the textile complex. Second, an empirical analysis of the dimensions of customer value for apparel products will be conducted. This empirical study will provide an insight into how different types of sustainability initiatives impact the formation of two primary consumer values identified in the literature: utilitarian and hedonic.

**Significance of Research**

Academic literature in the area of consumer behavior and marketing strategy has primarily focused on sectors other than the textile and apparel industry. Current marketing literature has limited studies that examine the effect of sustainability initiatives on different outcomes from consumer perspective (such as satisfaction, attitudes and intentions). Also, the apparel sector has been rarely addressed in the consumer value literature. At a time when the issue of sustainability is top concern and an increasing number of retailers are adopting sustainability initiatives and marketing them to gain a competitive edge, an investigation of how these initiatives influence the consumer value of the apparel product is required.
This study provides a framework that will help researchers understand the effect of sustainability initiatives marketed by retailers on different consumer outcomes. The conceptual framework presented on the basis of literature review proposes different relationships that moderate and mediate the effect of these initiatives on the firm’s consumer loyalty and market value. This study will provide a contribution to the existing theoretical literature in sustainability and green marketing. The study approach is specifically based on the hypothesis that different sustainability initiatives impact two primary types of consumer value: utilitarian and hedonic. The results of this study provide insight into different Functional and Emotional Value associated with different types of sustainability initiatives from a consumer perspective. The empirical examination of survey data provides a unique and original perspective into how consumers view different sustainability initiatives (i.e. three different scenarios for this study) and the contrasting effects of these initiatives on consumer value.

With the growing awareness of sustainability among consumers, the findings of this study will benefit both marketers and retailers, since it will enable them to assess the effect of sustainability initiatives on consumers. Also, this research will provide them with important insight into which specific sustainability initiative attracts consumers the most and results in formation of positive consumer value. The most substantial practical implication of this study could be for marketers of green products by reinforcing the consumer value dimension which is most prominently associated with sustainability initiatives. Retailers and marketers can take advantage of this knowledge in making important decisions while developing
sustainable marketing strategies as well as technological and strategic planning. The results will also provide direction to retailers on how to select the sustainability initiatives which ultimately drive consumers to perceive their products as ones providing unparalleled value.

To summarize, the results will contribute to the creative wealth of ideas by stimulating marketers to think more about (1) uncovering significant consumer value dimensions related to sustainability, (2) development of strategic approaches to position sustainable offerings, and (3) creation of alternative marketing themes for these offerings. This is important because once successful themes are identified; they can be integrated across multiple sources of media to help build brand equity for the firm.

**Limitations of this Study**

1. The conceptual framework developed for this study includes several consumer outcomes that are considered to be influenced by sustainability programs marketed by different brands. Although these factors are suggested by various previous researchers, there can always be additional factors that are excluded from this study, or have not been addressed in the past literature.

2. As with any consumer survey data, user error is an issue. Although, a pretest survey was conducted to verify the design accuracy of the survey, several data records did not match the researcher’s a priori knowledge. Any data records that did not appear to accurately reflect the typical response (extreme outliers) and missing entries were removed from the final data set.
3. The consumer value construct is divided into only five factors namely: Functional, Environmental, Price-purchase, Social and Emotional based on the research findings and data analysis. There might be additional factors which have not been included in this study.

4. Finally, the study surveys a convenience sample of undergraduate students at the North Carolina State University, which makes it difficult to generalize results to college students in other states, and other age groups.

**Definition of Terms**

**Sustainability:** The preservation and replenishment of natural resources.

**Triple Bottom Line:** An approach measuring a company’s success based on social and environmental factors in addition to the traditional economic value. It has been modified to measure sustainability in particular (Elkington, 1998).

**Corporate Social Responsibility (CSR):** Broadly defined as a company’s “status and activities with respect to its perceived societal or, at least, stakeholder obligations” (Brown and Dacin, 1997).

**Environmentally Friendly Clothing and Green Clothing:** Terms that are used interchangeably in describing clothing that is assembled from materials and processes with little or no harm to the environment.
Green Products: Green products have to represent a significant achievement in reducing environmental impact; they may also have to incorporate strategies of recycling, recycled content, reduced packaging or using less toxic materials.

Value to Customer: Eighteen different names for similarly-described, demand-side notions of value were found by Woodall (2003) in the extant literature. Consumer value and perceived value are two of these names.


Perceived Value: Perceived value is defined as the result of the comparison between perceived benefits and sacrifices by the customer (Zeithaml, 1988; McDougall and Levesque, 2000).

Utilitarian Value: The utility derived from a product due to the reduction of its perceived short term and longer term costs, a perceived quality and expected performance of the product.

Hedonic Value: The utility derived from the feelings or affective states that a product generates.

Social Value: The utility derived from the product’s ability to enhance social self-concept.

Sustainability initiatives related to “people”: Initiatives involved around maintaining a positive quality of life for individual people and the community as whole.
Sustainability initiatives related to “product”: Initiatives involved around use of recycled fibers or other environmentally friendly materials as product components.

Sustainability initiatives related to “planet”: Initiatives involved around creating a lower ecological impact possible throughout the supply chain.
Chapter 2

Review of Literature

The Phenomenon of Sustainability

Sustainability has been defined as “the consumption of goods and services that meet basic needs and quality of life without jeopardizing the needs of future generations” (OECD, 2002, p. 16). Cooper (2005) indicates that this definition of sustainability may be interpreted in different ways, but primarily the concept about limiting the throughput of resources, while making the best use of available resources. Sustainability is becoming a mainstream issue of interest garnering unprecedented attention from researchers and practitioners (Gordon, Carrigan and Hastings, 2011). Sustainability represents an approach that firms are increasingly adopting to conduct business, thereby altering established norms and rules for businesses worldwide (Engardio et al. 2007).

Firms are increasingly adhering to a triple-bottom line performance evaluation, a concept coined to reflect the growing tendency of stakeholders to evaluate organizational performance on the basis of economic prosperity (i.e., profits), environmental quality (i.e., the planet), and social justice (i.e., people) (Elkington 1998). The Center for Sustainable Enterprise (2011) defined triple-bottom line as “doing business while avoiding harm to people and the planet”. The environmental dimension focuses on firm’s activities that do not erode natural resources through corporate environmental management (Bansal 2005; Hart
1995). Next, the social dimension encourages firms to consider their impact on society and addresses issues akin to community relations, education support, and charitable contributions (Elkington 1998; Wood 1991). Finally, the economic dimension as Bansal (2005) explains, centers on value creation and enhanced financial performance of a firm’s activities. Cronin et al. (2011) give the recent BP oil spill in the Gulf of Mexico example which typifies the impact that an environmental disaster can have on a firm’s triple-bottom line. This incident not only led to plummeting of BP’s stock price plummeted and credit rating, but also increased consumer boycotts as environmental damage to the Gulf continued. Further, it led to even greater scrutiny by government and non-government organizations (NGOs) as a consequence of the lack of environmental responsibility. This example shows the growing importance of going green as a viable organizational strategy with specific implications for marketing as well.

**Sustainability and Marketing**

From a marketing perspective, sustainable business practice entails developing strategic thinking that positively impacts firms’ long-term economic sustainability, relationships with stakeholder communities and firms’ environmental footprint in an increasingly volatile and resource constrained world (Press and Arnould, 2010). Marketing academics' and practitioners' interest in understanding how environmental issues impact marketing activities continues to grow (Chamorro et al., 2009). A range of marketing contexts examines the interface between the natural environment and; consumer behavior
(i.e., Diamantopoulos et al., 2003), marketing strategy (i.e., Menon and Menon, 1997), public policy initiatives (i.e., Press and Arnould, 2009) and macromarketing (i.e., Kilbourne and Carlson, 2008). Researchers in a number of business and non-business fields have examined distinct aspects of sustainability. Issues such as corporate social responsibility (CSR) (Brown and Dacin 1997), cause-related marketing (Varadarajan and Menon 1988), corporate citizenship (Maignan et al. 1999), enviropreneurial marketing (Menon and Menon 1997), and corporate environmentalism (Banerjee et al. 2003) have emerged as important topics that relate to marketing research. Varadarajan (2010) suggests that considerable progress has been made to understand the importance of sustainable business practices in marketing and related fields.

The challenges related to behavioral change among consumers have been extensively analyzed within the extant literature. Two central issues related to behavioral change are the gap between consumers’ professed desire to change and their actual behavior (Carrigan and Attalla, 2001), and the need to interrupt habitual actions (Jackson, 2005). Jackson (2005) concludes that, companies interested in advancing sustainable lifestyles must bring environmental impacts of production, consumption and disposal systems into consumers’ everyday digressive consciousness. Gordon et al. (2011) introduce the concept of sustainable marketing which seeks to recognize that current consumption patterns are unsustainable; and that changes in consumer behavior are required to support the introduction of new technologies or sound consumption patterns. The article examines three ways in which sustainable marketing can be achieved: green marketing, social marketing, and critical
marketing. Green marketing facilitates the development and marketing of more sustainable products and services while introducing sustainability efforts into the core of the marketing process and business practice (Gordon et al., 2011). Social marketing involves using the power of marketing to encourage sustainable behavior among individuals, businesses and decision makers while also assessing the impact of current commercial marketing on sustainability (Gordon et al. 2011). Lastly, critical marketing involves analyses of marketing theory, principles and techniques using a critical theory based approach which can help to guide regulation and control, development of marketing theory and practice, and to challenge the dominant institutions associated with marketing and the capitalist system, encouraging a marketing system to construct a more sustainable marketing system (Gordon et al., 2011).

**Green Consumers**

With the expansion of the green product markets on both sides of the Atlantic (Diamantopoulos et al., 2003), companies pursue market opportunities in the production and promotion of environmentally sensitive goods and services (Menon and Menon, 1997; Polonsky and Ottman, 1998). Various empirical analyses demonstrate that environmental concern is a major factor in consumer decision making (Hackett, 1993; Zimmer et al., 1994; Kilbourne and Beckmann, 1998). Many studies have been conducted about corporations turning towards sustainability and becoming environmentally friendly (Drumwright (1994); D’Souza, Taghian and Khosla, 2007). In addition, many researchers have made an effort to define green consumers (Brown and Wahlers, 1998; Dagnoli, 1991). Segmentation analysis
enables companies to effectively target environmentally conscious consumers (Diamantopoulos et al., 2003). The literature on green marketing has attempted to profile green consumer segments using a variety of variables (Kilbourne and Beckmann, 1998). These studies include cultural measures (e.g., Webster, 1975; Murphy et al., 1978), personality measures (e.g., Kinnear et al., 1974), geographic measures (e.g., Samdahl and Robertson, 1989; Gooch, 1995), and socio-demographic characteristics. However, the studies that focus on socio-demographic characteristics are ambiguous and indicate limited value for segmenting and targeting environmentally conscious consumers (Diamantopoulos et al., 2003). Wind (1978) suggested instead of turning the green market into a set of identified generalizations, the development of business strategies to investigate consumer modifications in purchase behavior, in terms of product attributes such as price and quality would be practical. There is evidence to suggest that consumers are price and quality sensitive when it comes to ‘buying green’ (McKenzie, 1991). A study by Gilg, Barr and Ford (2005) shows that committed environmentalists are more likely to purchase products based on their environmental credentials, with price being less of a factor in the purchase decision. In order to explain the impact of price and quality on consumers’ green demand, D’souza et al. (2007) combined these factors with the demographic profiles of consumers forming distinct clusters or market segments, along with their environmental beliefs. The results showed strong preference for companies to place higher priority on reducing pollution than on increasing profitability.
Brown and Wahlers (1998) conducted an exploratory study demonstrating that consumers who are knowledgeable about environmental problems will be motivated towards green purchasing. Researchers (Hines, Hungerford, Tomera, 1987; Schann and Holzer, 1990) have found that it is not just knowledge of environmental issues but the action strategies that are available to respond to environmental issues impact consumer behavior. Thøgersen and Ölander (2002) conducted a study of Danish consumers which suggests sustainable consumption is influenced by individuals’ value-priorities as defined by Schwartz (Schwartz, 1992). There is also verification from research conducted by Karp (1996) that green consumers were more likely to hold altruistic values.

**Literature Review Framework**

This research aims to examine how different levels of sustainability impact the perception of consumer value. This research is based upon an exhaustive literature review of the research related to sustainability and marketing as presented in the framework (Figure 2.1). Next, an empirical analysis will be conducted to study how sustainability impacts the perception of customer value. The research methodology for the empirical study is explained in Chapter 3. This section presents literature which explains the different linkages connecting sustainability initiatives (adopted by brands) with loyalty and market value, incorporating mediators including: consumer attitudes and consumer satisfaction as well as several moderators.
Figure 2.1 Framework for presenting the review of literature (Developed by Satam, D., 2012)

Figure 2.1 presents a schematic of the approach followed to present information in this chapter. As mentioned in the previous sections, few studies have been conducted to understand the effect of sustainability on different tenets of marketing (e.g. Luo and Bhattacharya, 2006; Baker and Sinkula, 2005; Chabowski et al., 2011). However, because sustainability is a relatively new phenomenon, the academic literature in this area is not well developed to explain these linkages. From a broader perspective, researchers have been studying Corporate Social Responsibility (CSR) which is considered to be social aspect of sustainability since the last few decades (Lichtenstein et al. 2004; Robin and Reidenbach...
1987). This literature is therefore consulted to examine the effect of sustainability on consumer attitudes which in turn affect consumer satisfaction. Consumers’ awareness about the brand’s sustainability initiatives and historical brand associations operate as moderators for the linkage between sustainability and consumer attitude. The link between consumer satisfaction and loyalty has been widely considered in the extant literature outside of the sustainability context (Jones and Sasser, 1995; Mittal and Kamakura, 2001; Reichheld and Teal, 1996). This linkage is depicted within the proposed framework which may act as a mediator to examine opportunities for sustainability to generate market value. Literature examining the mediating role of brand equity between consumer satisfaction and loyalty is also presented. Studies have attempted to investigate the role of customer value as an antecedent to consumer attitudes, satisfaction, and loyalty. This literature was studied to present a complete scenario of how sustainability initiatives can affect the consumer behavior in the retail industry. The following sections present literature on each component of the conceptual framework.

**Consumer Value**

Holbrook (1999) defines consumer value as an interactive relativistic preference experience. The adjective “interactive” suggests that consumer value entails an interaction between some subject (a consumer or customer) and some object (a product). The relativistic component suggests that consumer value is (a) comparative (involving preferences among objects); (b) personal (varying across people); and (c) situational (specific to the context).
The most fundamental point about the nature of consumer value is that it embodies a preference judgment. Finally, the experience component of the definition suggests that consumer value resides not in the product purchased, not in the brand chosen, not in the object possessed, but rather in the consumption experience(s) derived therefrom (Holbrook and Hirschman, 1982). Marketing researchers have become increasingly interested in studying customer value as a key determinant of consumer decision-making and behavior (Sheth, Newman, and Gross, 1991; Bolton and Drew, 1991). The American Marketing Association expanded its definition of marketing to include “creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large”, emphasizing the importance of customer value to the whole concept of marketing (American Marketing Association, 2011).

**Conceptualizing Consumer Value Categories**

Sheth, Newman and Gross (1991) indicate that at least five different types of value motivate the individual to consume an offering: social value, emotional value, functional value, epistemic value, and conditional value. A decision may be influenced by any or all of the five consumption values. Each of these values is defined by Sheth et al. (1991) as shown in Table 2.1. These five dimensions are related specifically to the perceived utility of choice, whether at the decision to buy level (brand A or brand B). Though the majority of studies suggest that functional value is the key influencer on consumer choice, Sheth et al. (1991) found that the other value dimensions were also influential in some situations. For example,
the decision whether to use filtered or unfiltered cigarettes was dominated by functional and social value, but emotional value was key to the decision to smoke.

**Table 2.1. Definitions of different types of consumer values (Seth et al., 1991)**

<table>
<thead>
<tr>
<th>Consumer Value</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td><strong>Functional</strong></td>
<td>The perceived utility acquired from an alternative’s capacity for functional, utilitarian, or physical performance. An alternative acquires functional value through the possession of salient functional, utilitarian, or physical attributes. Functional value is measured on a profile of choice attributes</td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td>The perceived utility acquired from an alternative’s association with one or more specific social groups. An alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups. Social value is measured on a profile of choice imagery</td>
</tr>
<tr>
<td><strong>Emotional</strong></td>
<td>The perceived utility acquired from an alternative’s capacity to arouse feelings or affective states. An alternative acquires emotional value when associated with specific feelings or when precipitating or perpetuating those feelings. Emotional value is measured on a profile of feelings associated with the alternative</td>
</tr>
<tr>
<td><strong>Epistemic</strong></td>
<td>The perceived utility acquired from an alternative’s capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge. An alternative acquires epistemic value by questionnaire items referring to curiosity, novelty, and knowledge</td>
</tr>
<tr>
<td><strong>Conditional</strong></td>
<td>The perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker. An alternative acquires conditional value in the presence of antecedent physical or social contingencies that enhance its functional or social value. Conditional value is measured on a profile of choice contingencies</td>
</tr>
</tbody>
</table>
Utilitarian Value and Hedonic Value

Extant research has established that consumption can take place for hedonic or utilitarian reasons (Hirschman and Holbrook, 1982; Lim and Ang, 2008) which constitute the five categories of value determined by Sheth et al., (1991). Consumer value classifications are represented as the dichotomization of utilitarian and hedonic values (Babin et al., 1994; Bridges and Florsheim, 2008; Chandon et al., 2000; Childers et al., 2001; Homer, 2008; Voss et al., 2003). These two dimensions indicate an assessment of the overall worth of consumption activity, representing a more comprehensive picture of the value. The utilitarian dimension results from work aspects, whereas the hedonic dimension is derived from the fun perspective (Babin et al., 1994; Eroglu et al., 2005).

Utilitarian and hedonic shopping benefits derived by consumers have been a popular topic of study within several disciplines including economics, psychology, and sociology (Carpenter and Fairhurst, 2005). Jones, Reynolds and Arnold (2006) describe hedonic shopping value as the value received from the multisensory, fantasy and emotive aspects of the shopping experience, while utilitarian shopping value as that which reflects the acquisition of products and/or information in an efficient manner and can be viewed as reflecting a more task oriented, cognitive, and non-emotional outcome of shopping. In general, utilitarian shopping value reflects the task-related value of a shopping experience while hedonic shopping value reflects the value found in the shopping experience itself, independent of task-related activities (Babin and Attaway, 2000).
Babin et al. (1994) used extant literature and focus groups to introduce these two types of shopping values and developed a scale measuring both hedonic and utilitarian values obtained from the pervasive consumption experience of shopping. The results of their study show that distinct hedonic and utilitarian shopping value dimensions exist and are related to a number of important consumption variables. Other researchers (Batra and Ahtola, 1990) also support the presence of distinct utilitarian and hedonic components, which are referred as ‘thinking and feeling’ dimensions.

**Consumer Value, Attitude, Satisfaction and Loyalty**

A great deal of past research has focused on antecedents to both hedonic and utilitarian shopping value (Babin and Darden, 1995; Griffin et al., 2000; Babin and Attaway, 2000; Stoel et al., 2004; Babin et al., 2005). However, calls have been made to explore the relationships between consumer value and other retail outcome variables. There are only a few studies which have studied the relationship between shopping value and other retail variables such as satisfaction (Babin et al., 2005), customer share (Babin and Attaway, 2000), and repatronage intentions (Stoel et al., 2004). Jones et al. (2006) suggest an interrelationship between hedonic and utilitarian shopping value and shopping outcomes. Their results show that hedonic aspects of shopping influence the outcomes such as satisfaction with the retailer, word of mouth, and repatronage anticipation, while, utilitarian shopping value is more strongly related to repatronage intentions. Cronin et al. (2000) reported both a direct effect of service value on behavioral intention and an indirect effect of service value on behavioral
intention through customer satisfaction. Lam et al. (2004) suggests that customer value affects customer satisfaction and customer satisfaction affects customer loyalty. Customer value is also positively related to customer loyalty (Bolton and Drew 1991; Sirdeshmukh et al. 2002). Results of a study conducted by Carpenter and Fairhurst (2005) indicate that both utilitarian and hedonic shopping benefits have a positive effect on customer satisfaction. The results also indicate that customer satisfaction is positively associated with customer loyalty and word of mouth communication. Positive influence of perceived value on loyalty towards the service provider (McDougall and Levesque, 2000; Zins, 2001; Lewis and Soureli, 2006), particularly in the context of the retailing has been in literature. Ruiz-Molina and Gil-Saura (2008) studied the influence of perceived value on consumer attitude and loyalty in several retail activities. The results showed that grocery retailers are considered to offer more economical products than other stores, whereas they show worse results in perceived quality, emotional and social values in comparison with other retailers — for example clothing and footwear, electronics and electric home appliances, and furniture and decoration.

To date, the majority of the consumer value literature has primarily studied attitudes of the consumers in the form of hedonic and utilitarian values. However, as mentioned by Sheth et al. (1991), social value is also one of the components of consumer value. At a complex level, the consumption of products also enables the consumer to symbolize information about his or her social identity (Shavitt, Lowrey, and Han, 1992) which can be used as an outward expression of the consumer’s construction of his or her self-concept (or self-identity). As suggested by Piacentini and Mailer, (2006, p. 252) the consumer’s self-
concept is actively *constructed and preserved* through “symbolic consumption”. Thus, in this research in addition to studying the impact of different types of sustainability initiatives on utilitarian and hedonic values of the consumer, the impact of these initiatives on Social Value will also be studied.

**Sustainability Initiatives, attitudes and satisfaction**

The previous section explains how consumer value impacts attitudes, satisfaction and loyalty. The primary aim of this section is to consolidate the existing literature to support the case for the positive impact of sustainability initiatives adopted by a company on consumer attitudes and satisfaction. Since sustainability is a relatively new practice being adopted by the industry, there is a dearth of literature that explains the impact of sustainability on consumer attitudes and satisfaction. However, evidence of the business community’s concern for society can be found for centuries. The formal documentation of social responsibility began six decades ago in the 20th century. Howard R. Bowen’s (1953) book, *Social Responsibilities of the Businessman*, marked the beginning of modern literature on Corporate Social Responsibility (CSR). Bowen (1953) set forth an initial definition of the social responsibilities of businessmen: “It refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society” (p. 6). Starting from this definition by Bowen, the concept of CSR has evolved but the underlying principle still remains the same. At present, most companies consider CSR as one of the pillars of the Triple Bottom Line.
Therefore, a parallel can be drawn between the effects of CSR and sustainability initiatives from a consumer perspective.

Halme and Laurila (2009) and Porter and Kramer (2006) suggest that CSR initiatives can be mutually beneficial to both the company and society if strategically integrated into company’s core business. McWilliams, Siegel and Wright (2006) suggest that the relationship between the social performance of a company and its financial performance has been of primary interest to researchers in recent years. To gain a more thorough understanding of CSR, the impacts of this phenomenon on additional stakeholders is also necessary. Due to the heavily conceptual and fragmented nature of the literature that considers CSR outcomes, a strong need exists to develop empirical measures for both the private and social outcomes of CSR.

To date, very few studies in the academic literature measure the societal impacts of CSR initiatives undertaken by companies. Consumer research that focuses upon favorable consumer behavior outcomes of CSR are evident in academic literature, however this work is primarily developmental focusing upon CSR’s influence on financial performance and market value with little industry specific knowledge for managerial application.

**Consumer Outcomes**

Lichtenstein, Drumwright, and Braig (2004) find that CSR initiatives may result in corporate benefits in the form of favorable consumer behavior including increased actual purchase behavior and more favorable product and brand evaluations. The studies that have
been conducted on consumer reactions to CSR commonly identify one type of socially responsible business activity and, often use experimental designs to manipulate whether or not a fictitious corporation engaged in this activity (Walker, 2007). Some of these studies also measure consumer attitudes toward a corporation and their intention to purchase its products (Castaldo et al., 2009). Several surveys also report that consumers claim that they are influenced, more specifically, by the CSR reputation of a firm (Smith, 2003). However, in many cases these surveys lack realism and empirical rigor in terms of actual consumer behavior.

One of the most frequently quoted studies is that by Brown and Dacin (1997) which examines the effect of corporate associations on consumer response to new products. Their results suggest that consumers’ perceptions of a company influence their beliefs and attitudes toward the company’s products. The study demonstrates that corporate ability associations (that is, consumer opinions about a company’s ability to produce good products) have stronger effects than CSR associations (that is, a company’s perceived response to social obligations). The study also suggests that social responsibility works more like an insurance policy rather than a source of product differentiation: positive social responsibility associations modestly influence product evaluation, while negative associations appear to have more substantial consequences (Castaldo et al., 2009). This result points to a ‘license-to-operate’ model, whereby companies engage in CSR activities to avoid social penalties, rather than to build brand image or other useful market attributes (Porter and Kramer, 2006).
There are a number of studies in which consumers claim a willingness to pay higher prices for products produced by socially responsible companies, or to take the social responsibility profile of the producer into consideration when comparing different brands (Creyer and Ross, 1997; Ellen et al., 2000; Mohr et al., 2001). But, Page and Fearn (2005) suggest that these studies fall short of relating consumer perceptions to actual purchasing behavior. According to Boulstridge and Carrigan (2000), the topic of social responsibility gives rise to an ‘attitude–behavior gap’: consumers like to express willingness to make ethical purchases, but social responsibility may not be an effective criterion when they actually go shopping. Some studies report explicit declarations by consumers that social responsibility is not a factor in their purchasing decisions. Carrigan and Attalla (2001) conducted a focus group in which most of the participants said that, while they were aware that Nike had a poor ethical record, they would still buy Nike shoes. In 2004, Castaldo and Perrini conducted a survey on a sample of college students and obtained a similar result (Castaldo, Perrini, Misani, and Tencati, 2009). They found that student opinions on the social performance of Nike correlated poorly with measures of brand loyalty and willingness to pay premium prices for Nike apparel. ‘Evidence to suggest that a significant proportion of consumers will pay more for CSR is scant’ (Smith, 2003); also, ‘Studies of the effect of a company’s social reputation on consumer purchasing preferences… have been inconclusive at best’ (Porter and Kramer, 2006).

Research suggests that consumers will reward firms that are involved in CSR programs and initiatives; however, it is unlikely that consumers will blindly accept these
social initiatives as sincere and thus may or may not reward the firm. Factors at company-
level, such as the specific CSR issues a company focuses on, and the individual-level, such as
support for CSR issues or demand for a given product’s social attributes, can influence how a
company’s CSR activities translate into consumer purchases (Sen and Bhattacharya, 2004;
Schuler and Cording, 2006). Research further suggests that consumers will punish firms that
are perceived as insincere in their social involvement (Sen and Bhattacharya, 2001).

Previous research that demonstrates the link between social initiatives and positive
affective, cognitive, and behavioral responses by consumers includes study of the
relationship between social initiatives and price (Creyer and Ross, 1997), perceived quality
(Folkes, 1988), corporate attitudes (Brown and Dacin, 1997), and purchase intentions
(Murray and Vogel, 1997). A study by Becker-Olsen and Hill (2005) demonstrates that when
social initiatives are not aligned with corporate objectives (low fit), CSR can actually become
a liability and diminish previously held beliefs about firms. Prior research also suggests that a
good fit between prior expectations, knowledge, associations, actions, and competencies of a
firm and a given social initiative can be more easily integrated into the consumer’s existing
cognitive structure, strengthening the connection between the firm and the social initiative
(Fiske and Taylor, 1991; Wojciske, Brycz and Borkenau, 1993). Such high-fit initiatives are
a function of perceived consistency with prior expectations and actions between firms and
causes, reinforcing the firm’s market position (Becker-Olsen and Hill, 2005). From this
perspective, Brown and Dacin (1997) suggest that clear positive market positions are
important because they help consumers understand how firms fit into the competitive
landscape, provide a point of differentiation, reduce uncertainty about firms and their products, and increase purchase intentions. Two recent studies suggest that consumers who observe an incongruity between the firm abilities and CSR initiatives have diminished attitudes toward the firm and its initiatives (Forehand and Grier, 2003; Menon and Kahn, 2003). Further, the lack of congruity is likely to reduce the clarity of the firm’s market position and call into question the firm’s motives (Becker-Olsen and Hill, 2005). Consumers will interpret firms’ behaviors and draw conclusions about motives depending upon the context. When motivations are considered beneficial to firms’ profit, attitudes toward firms are likely to diminish; while when motivations are considered beneficial the society, attitudes toward firms are likely to be enhanced (Ellen, Mohr and Webb, 2000). Thus, consumer response to firms’ support for natural disasters is more positive than support for ongoing causes.

**Company Outcomes**

The literature provides evidence that CSR initiatives impact firm financial performance which ultimately influences the firm’s market value. Studies involving research into the influence of CSR on financial performance (FP) of a firm form a distinct line of inquiry. The results of studies within this research stream are mixed. One of the reasons for the inconsistent results is that much of the research on the influences of CSR on FP frames CSR as a monolith (Barnett and Salomon, 2006). Additional variables relevant to industry, culture, national systems and context should be included in this research stream. Several
studies suggest that financial performance outcomes of responsible corporate behavior vary depending on firm-specific (Lankoski, 2000) and industry-related factors (Lankoski, 2000; Reinhardt, 1999; Simpson and Kohers, 2002) and some are influenced by environmental dynamism and munificence (Goll and Rasheed, 2004). This section concentrates on review of literature the study’s benefits to the company due to CSR from the market value and FP point-of-view.

Orlitzky, Schmidt and Rynes (2003) conducted an extensive meta-analysis of 52 prior studies of the relationship between corporate social performance (CSP) and corporate financial performance (CFP). CSP can be defined as a business organization’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships (Wood, 1991). The results of the meta-analysis show that not only is CSP positively correlated with CFP but also that the relationship tends to be bidirectional and simultaneous.

Hillman and Keim (2001) claim that FP is affected differently depending on the nature as well as the scope of the socially responsible activity. They divide the term corporate social performance (CSP) down to stakeholder management (first referring to investing in relationships with primary stakeholders such as the customers, employees, suppliers, shareholders and the surrounding communities) and social issue management (referring to CSP elements outside the direct relationships with primary stakeholders). Porter and Kramer (2006) also suggest that the way in which CSR programs are implemented will in all probability influence its outcomes, including the financial ones. All CR activities do not
contribute positively to financial performance, but some do (Barnett, 2007; Lankoski, 2007). So, the important question that companies need to answer is what kind of responsibility they should practice that can benefit FP.

Research also suggests that CSP can also be considered as organizational resource that provides internal or external benefits, or both. Internally, investments in CSP may help firms develop new competencies, resources, and capabilities which are manifested in a firm’s culture, technology, structure, and human resources (Barney, 1991; Russo and Fouts, 1997; Wernerfelt, 1984). CSP can help management develop better scanning skills, processes, and information systems, which increase the organization’s preparedness for external changes, turbulence, and crises (Orlitzky, Schmidt, and Rynes, 2003). These competencies, which are acquired internally through the CSP process, would then lead to more efficient utilization of resources (Majumdar and Marcus, 2001). Firms high in CSP may use CSR disclosures as one of the informational signals upon which stakeholders base their assessments of corporate reputation under conditions of incomplete information (Fombrun and Shanley, 1990). Firms with high CSP reputation may also attract better employees (Greening and Turban 2000) or increase current employees’ goodwill, which in turn may improve financial outcomes (Waddock and Graves, 1997). Orlitzky et al.(2003) suggest that reputational effects act as mediators of the CSP–CFP linkage and this positive association of CSP-CFP leads to improvement in managerial competencies and learning of the firm. Luo and Bhattacharya (2009) developed and tested a theoretical framework which suggests that a superior CSP relative to the competitors is capable of boosting shareholders wealth by lowering the
undesirable volatility of firm’s stock prices. The study also suggests that firms with higher advertising intensity derive more risk-reduction benefits from CSP than firms with lower advertising intensity.

**Mediating role of consumer attitudes and satisfaction**

The previous sections examine the potential effect of CSR programs undertaken by a firm on the consumer, company and society domains’ individually. This section presents literature that suggests the interdependency of the effect of CSR programs on these domains. For example, how the changes in the consumer attitudes towards a company’s CSR initiatives can affect the company’s market value or financial performance. In sum, this section examines how consumer attitudes and satisfaction act as mediators between the CSR programs and firm’s market value.

There is accumulating marketing literature that demonstrates the influence of consumer satisfaction on market value of the firm. Some examples include, firms with satisfied customers tend to enjoy greater customer loyalty (Bolton and Drew 1991), positive word of mouth (Szymanski and Henard, 2001), and customer’s willingness to pay premium prices (Homburg, Koschate, and Hoyer 2005), all of which can increase a firm’s market value. Research also suggests that customer satisfaction leads to faster market penetration and in turn accelerates cash flow (Srivastava, Shervani and Fahey, 1999). Luo and Bhattacharya (2006) develop and test a framework which predicts that customer satisfaction partially mediates the relationship between CSR and firm market value while corporate
abilities (innovativeness capability and product quality) moderate the financial returns to CSR. Their research also suggests that CSR helps build a satisfied customer base which in turn mediates financial returns to CSR. Anderson, Fornell and Mazvancheryl (2004) developed and tested a theoretical framework that studied how customer satisfaction affects future consumer behavior and in turn influence the level, timing, and risk of future cash flows. Empirically they find a positive association between customer satisfaction and shareholder value. This backdrop of empirical and anecdotal evidence suggests a mediating relationship of consumer satisfaction between CSR programs and market value of a firm.

The review of literature from the textile and apparel industry perspective suggests that there is little academic work that focuses on studies based on consumer intentions and behavior towards CSR for apparel. Kim, Littrell and Ogle (1999) conducted a study with 320 respondents to examine the relative importance of socially responsible attitudes, along with catalog shopping involvement and product-related attributes, as predictors of consumers' intentions to purchase apparel. Their results suggest that social responsibility is a positive predictor of intention to purchase apparel within this context. Dickson (2000) studies the relationship between consumers’ personal values, beliefs and knowledge, attitudes relating to socially responsible business practices, and intentions to purchase apparel from socially responsible businesses. She finds that greater knowledge and concern about apparel industry issues as well as the belief of perceived effectiveness of the U.S. apparel industry are related to greater support of socially responsible businesses. Shim (1995) supports this claim that consumer knowledge in the case of environmental issues plays an important role in apparel
consumption. King and Workman (1996) find that students who are more knowledgeable of textile and apparel environmental issues intend to purchase apparel from socially responsible businesses. Butler and Francis (1997) claim that younger consumers hold more favorable attitudes toward environmental regulation and about conserving environment with clothing consumption practices.

The review of academic literature for outcomes of CSR suggests that there are many studies conducted to understand the effect of CSR initiatives on consumer behavior. The benefits of CSR to a company in financial terms have been measured in the form of its market value. But the majority of this work has been conducted with a general approach and not specific to any industry. This suggests a need for in-depth research in the textile and apparel industry to understand the industry specific outcomes of CSR particularly due to its global nature. Thus, it is imperative to understand the effects of CSR in this industry whose success is dependent on inputs from different regions of the world.

**Moderators**

The previous sections of this review identify the outcomes of the CSR programs of a firm. These linkages between CSR initiatives, consumer satisfaction, and market value are influenced by moderators which primarily affect consumer beliefs, attitudes and intentions towards a firm which in turn affect consumer satisfaction which ultimately affects the market value of a firm. This section reviews the literature to identify constructs that act as moderators of CSR and market value.
Mohr et al. (2001) and Maigan (2001) propose that academic research into consumer response to CSR activities either assumes consumer awareness or artificially creates this awareness under experimental conditions. Mohr et al. (2001) note that there is a distinct lack of studies that measure general consumer awareness of CSR initiatives, and one of the major reasons for this could be that CSR is considered to be a complex concept that is challenging to measure. In an attempt to fulfill this gap Auger et al. (2003) conducted a cross-cultural study focusing on the athletic shoes and soap product categories. They concluded that while consumers are reasonably confident in their knowledge of the functional features of the products they currently buy, they have difficulty recalling some of the most basic ethical characteristics of the same products. This difficulty can be associated with the lack of knowledge about a firm’s CSR activities or general lack of CSR awareness. Mohr et al. (2001) suggest that consumers have difficulty acquiring and storing CSR information about the firms from which they purchase. Roberts (1996, p. 80) notes that socially conscious attitudes may not result in favorable consumer attitudes and purchasing decisions, because “scant data exist on how most companies perform on any number of social criteria that might affect a consumer’s decision”.

Pomering and Dolnicar (2009) suggest that consumer awareness is a required precondition for consumers rewarding businesses for ethical behavior. Auger et al. (2003) and McWilliams and Siegel (2001) emphasize that firms can gain competitive advantage
through CSR only when consumers are aware of these activities. Research conducted by Bhattacharya and Sen (2004) suggest that there is significant heterogeneity among consumers in terms of awareness and knowledge of companies’ CSR activities, while some consumers can be considered as “CSR mavens,” large number of consumers are not aware that by and large most companies engage in CSR initiatives. The authors suggest that awareness is a necessary condition for any favorable attitudinal and/or behavioral response to be evoked, but the current low levels of general CSR awareness are a key stumbling block for companies looking to reap the positive benefits of engaging in such initiatives. Thus, it can be concluded that CSR awareness is an important moderator that influences the relationship between a firm’s CSR initiatives and their influence on consumers’ favorable attitudes and beliefs.

**Corporate Associations**

‘Corporate associations’ is a categorical term that encompasses all of the concepts traditionally referred to as ‘corporate image’ or ‘corporate reputation’ (Brown, 1998). Academic studies have shown that the different types of associations that consumers’ link to a company have different influences on consumer beliefs, attitudes and intentions (Sen and Bhattacharya, 2001 and Brown and Dacin, 1997). These studies also suggest that though CSR influences product evaluations, other corporate associations such as corporate abilities, marketing considerations and product considerations have a stronger effect on consumer attitudes than these CSR associations (Brown, 1998 and Berens, Riel and Bruggen, 2005). Therefore, it is reasonable to suggest that these corporate associations will act as moderators
in the influence of CSR on consumer attitudes. Corporate ability (CA) is a primary
dimension of corporate association. Keller and Aaker (1992) consider CA to be the perceived
expertise of a company, (i.e. the degree to which the company is capable of developing,
producing, and delivering products and/or services). As mentioned earlier, Brown and Dacin
(1997) find that CA associations influence consumers’ attitudes toward products by
influencing the evaluation of specific product attributes as well as the overall evaluation of
the company. Gürhan-Canli and Batra (2004) demonstrate that, in the case of high risk
products, a company’s CA has a stronger affect compared to CSR associations on consumer
attitudes and intentions. Madrigal (2000) finds that the perceived fit between the product and
the corporate brand positively influences both - the effect of CA associations and the effect
of CSR associations. The literature also suggests that brand associations have more influence
on consumer judgments when people have low involvement with the type of product and/or
with the judgment itself (e.g., Maheswaran, Mackie, and Chaiken, 1992) or when people
have a low expertise with the product class (e.g., Broniarczyk and Alba, 1994). The academic
literature reviewed thus justifies the potential that corporate associations will act as
moderators for CSR influence on consumer beliefs and intentions.

**Brand equity**

Aaker (1996) created a model which suggests that brand equity is composed of five
components: brand name awareness, brand loyalty, brand associations, perceived quality, and
other proprietary brand assets such as patents and channel relationships. Research suggests
that a company’s reputation for socially responsible behavior constitutes an important part of its brand capital (Lai et al. 2010). Fombrun (2005) also supports this as he suggests reputation gain as one of the outcomes of CSR programs. Many studies have measured brand equity from the perspective of firm in the form of financial outcome measures (Simon and Sullivan, 1993 and Mahajan, Rao and Srivastava, 1994). Kim et al. (2003) examine the correlation between consumer-based measures of a brand’s perceived quality, awareness, loyalty, and image, and the firm’s revenue. Aaker and Jacobson (2001) demonstrate that brand attitude predicts a firm’s stock value and future earnings in high-technology markets. High brand equity induces customers to pay a premium price for the associated product or service which enhances company’s market value (Lai et al. 2010). Thus, on the basis of this literature we suggest that CSR can affect a firm’s brand equity which in turn acts as a moderator between the firm’s CSR initiatives and market value.

**Conceptual Model**

In this research, to narrow the focus from the broad literature review framework, an empirical study was designed to understand how sustainability initiatives marketed by the retailers shape the utilitarian and hedonic aspects of consumer value. Figure 2.2 shows the conceptual model that will be explained in this section to indicate the hypotheses for quantitative study. The literature reviewed in the previous sections of this chapter prepared the way for the development of this conceptual model used to guide the empirical analysis of this research.
Consumer value literature shows dichotomization of overall consumer value into utilitarian and hedonic values (Bridges and Florsheim, 2008; Chandon et al., 2000; Childers et al., 2001; Homer, 2008). These two dimensions are further divided into different categories of value depending on the context in which they are used. For the purpose of this study, utilitarian value is sub-divided into three categories: Functional, Environmental and Price-purchase Value and hedonic value is sub-divided into two categories: Social and Emotional Value. The different sustainability initiatives marketed by retailers are grouped in three categories in relation to this research: sustainability initiatives related to “people”, “planet” and “product”. Tables 2.2 and 2.3 present the definitions of these different types of sustainability initiatives and values (respectively) used in the context of this research.
Table 2.2 Definitions of different sustainability initiatives used for this research

<table>
<thead>
<tr>
<th>Sustainability Initiatives Related to</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>Initiatives involved around maintaining a positive quality of life for individual people and the community as whole</td>
</tr>
<tr>
<td>Planet</td>
<td>Initiatives involved around creating a lower ecological impact possible throughout the supply chain</td>
</tr>
<tr>
<td>Product</td>
<td>Initiatives involved around use of recycled fibers or other environmentally friendly materials as product components</td>
</tr>
</tbody>
</table>

*Note: Developed by Satam, D. (2012)*

Table 2.3 Definitions of different consumer values used for this research

<table>
<thead>
<tr>
<th>Consumer Value</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>The utility derived from the perceived quality and expected performance of the product</td>
</tr>
<tr>
<td>Price-Purchase</td>
<td>The utility derived from the product due perceived price and willingness to purchase</td>
</tr>
<tr>
<td>Environmental*</td>
<td>The utility derived from the product as it is perceived to be environmentally friendly</td>
</tr>
<tr>
<td>Social</td>
<td>The utility derived from the product’s ability to enhance social self-concept</td>
</tr>
<tr>
<td>Emotional</td>
<td>The utility derived from the feeling or affective states that a product generates</td>
</tr>
</tbody>
</table>

*Note: Adapted from Sweeney and Soutar (2001); Environmental* - developed by Satam, D. (2012)
In order to address the Research Objective II of this research, based on the literature reviewed in this chapter, the following hypotheses are developed:

**H1**: Functional Value differs across the four scenarios: control, “people”, “product” and “planet”

**H2**: Price-purchase Value differs across the four scenarios: control, “people”, “product” and “planet”

**H3**: Environmental Value differs across the four scenarios: control, “people”, “product” and “planet”

**H4**: Social Value differs across the four scenarios: control, “people”, “product” and “planet”

**H5**: Emotional Value differs across the four scenarios: control, “people”, “product” and “planet”

To conclude, the literature reviewed in this chapter provides the basis for the framework (Figure 2.1) which shows the different linkages describing the effect of sustainability initiatives that are being adopted by different companies. In addition, this review provides direction for the conceptual model (Figure 2.2) and empirical analysis to study the impact of different types of sustainability initiatives on perception of consumer value.
Chapter 3

Methodology

Purpose of the Study

With the growing awareness of environmental concern among consumers and an increasing number of retailers marketing sustainability initiatives, this study investigates the effect of these initiatives on consumer outcomes for marketing. Focused on the competitive dynamics of the apparel retail industry, the purpose of this study is to examine the impact of sustainability initiatives commonly marketed to the consumers on their perception of consumer value. This work specifically investigates and identifies the impact of three different types of sustainability initiatives (i.e. “people”, “planet” and “product”) on utilitarian and hedonic consumer values.

The overall purpose of the study was to understand the consequences of marketing sustainability initiatives on consumer outcomes from a marketing strategy perspective. The study also explores the effect of these three sustainability initiatives on creation of consumer value.
This chapter presents the methods used in the study in the following five sections:


**Research Design**

The research design was deductive and the study employed a mixed methods research approach involving a dominant quantitative approach with a less-dominant qualitative approach for data collection. Figure 3.1 presents the deductive model of thinking typically used in a quantitative study.

![Deductive Model](image)

**Figure 3.1** The deductive approach used in quantitative research (Adapted from: Creswell, 2009, pp.57)
As presented in the figure above, the deductive approach (explained in Creswell, 2009) involves testing or verification of a theory by researcher through examination of hypotheses or question derived from this theory. These hypotheses or questions may contain variables or constructs defined by the researcher. Next, the researcher develops an instrument to measure the variables defined in the scope of the study and collects and investigates the data to confirm or disconfirm the theory.

**Figure 3.2 Research Design (Developed by Satam, D., 2012)**

For this research there were two levels of analysis wherein the first level yielded insights for the second phase of research (Figure 3.2). The first phase was comprised of a review of literature that summarized the impact of different sustainability initiatives marketed by apparel retailers on consumer outcomes that are important from a marketing perspective. For the second phase of this research, data were collected using mixed methods
approach (applying both quantitative and qualitative research methods) to provide an understanding of the impact of marketing sustainability initiatives on perception of consumer value for apparel.

**Research Objectives**

Research Objective I: To conduct a literature review that investigates the influence of sustainability on different consumer outcomes by examining the relationship between sustainability initiatives and customer loyalty, attitude, satisfaction, and consumer value.

Research Objective II: To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on formation of consumer value.

*Research Objective II(a):* To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on formation of three different types of utilitarian values: Functional, Environmental and Price-purchase.

*Research Objective II(b):* To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on formation of two different types of hedonic values: Emotional and Social.
In order to accomplish the goals of each research objective, several methods for information and data collection were employed. Research objective I comprised of literature review to construct a conceptual framework which provides a broad overview of the impact of sustainability initiatives marketed by retailers on various consumer outcomes. Broad criteria were employed for selection of studies to be included in the review. Appendix A presents the sources in which the published research studies were found for this review. Most of these studies have been conducted in the consumer behavior, marketing strategy and business ethic areas. The North Carolina State University library, Web of Science database, Business Source Premier Database, Google Scholar and other conventional methods of tracking contributions of the literature in context of the study were used to collect references for this review.

Research Objective II which addresses the empirical component of the research examines the impact of three types of sustainability initiatives on formation of two consumer values: utilitarian (Functional, Price-purchase and Environmental) and hedonic (Social and Emotional). A quantitative study was conducted to collect data using online survey. A survey design was used for various reasons. Creswell (2009) suggests that using a survey design helps to make generalizations or claims about the population using the sample results. Also, it is relatively inexpensive and effective tool to gain access to a large group of respondents with a rapid turnaround in data collection. According to Hair et al. (2006), a survey design provides a systematic way to obtain information about the unobservable constructs in consumer behavior studies.


**Preliminary Industry Interviews**

During the early stages of this research study, interviews with industry personnel were conducted to inform the research design. The primary aim of these interviews was to understand the sustainability strategy adopted by companies and retailers in the textile and apparel industry. Information retrieved from these interviews provided an insight into understanding the industry opinion about consumer behavior for sustainable products. Fourteen personal interviews were conducted with sustainability executives representing different companies throughout the textile value chain. These organizations include thread and apparel manufacturers, retailers, NGOs, and sustainability and compliance groups. The personnel interviewed held key sustainability positions in their respective firms that led to acquiring valuable information about the company strategy for sustainability. Appendix B presents the list of questions asked during these preliminary interviews.

**Population and Sampling method**

Defining the population that is the focus of the study is the first step in sampling. Kalton (1983) indicates the defined population needs to be specified according to the survey objectives. The sample selection for this study was guided by the primary objective to find a homogeneous group of consumers who regularly shop apparel (specifically denim products). Thus, the sampling frame consists of a college student sample. This sampling method can be characterized as both convenient and purposive (Kerlinger and Lee, 2000). Though the use of student samples in consumer behavior research has been criticized, if the results obtained can
be generalized to the larger population, many have argued that the differences between using student samples versus consumer samples are minimal enough to justify using students as subjects (Lamb and Stem, 1979; Khera and Benson, 1970; Wells, 1993; Brown, Brown and Beltramini, 1989). In Research Methods for the Behavioral Sciences Stangor (1998) explains that use of college students is (1) efficient and (2) variability in the sample is minimized, as student samples provide homogeneity and help to control error when undertaking theory testing thus allowing for a more powerful test of the research hypotheses. Thus, by using a homogeneous sample, a lesser degree of external validity was sacrificed for a greater degree of internal validity. In spite of these measurement implications, the use of a college student sample is relevant and appropriate for this research as college students are part of the specified target market of most apparel retail brands.

For the purpose of this study, a random sample of 2500 currently enrolled undergraduate students at North Carolina State University was chosen by seeking help from the University Planning and Analysis department. The online survey designed using Qualtrics was sent to all the 2500 participants. An initial email for inviting student participation was sent, followed by a reminder email was sent to the participants who did not complete the survey within one week. Please see Appendix C to refer the survey designed for this research. Please see Appendix D to refer the format of the emails sent to the participants.
Questionnaire

The survey questionnaire was administered in an online format designed using Qualtrics. The cover page explained the purpose of the study and its implications and benefits to the textile and apparel industry. The cover page also contained the names of the researcher, the committee chair and information regarding subject rights and informed consent. The questionnaire addressed all the focal variables (dependent and independent) involved in the study, followed by consumer demographics in a systematic manner. The questionnaire consisted of three sections. The first section was divided in four sub-sections. Each of these sub-sections contained a product label for a pair of jeans followed by 16 statements measuring the four values: Functional, Social, Emotional, Price and Environmental. These four sub-sections aimed to measure the consumer values for four scenarios of sustainability initiatives marketed by retailers: (1) Control (no information), (2) Initiatives related to “people”, (3) Initiatives related to “product”, and (4) Initiatives related to “planet”. Using the Qualtrics software, these four sections were presented to the survey participants in random order. The next section of the survey measured the purchase intentions of the participants for the same four scenarios that were presented in section I. In the third section of the survey, respondents were asked to provide some demographics related to age, gender, ethnic background, major and class standing for classification purposes. Please see Appendix C to refer to the survey designed for this study.
Measures

Scales for the variables were adopted from the extant literature due to their relevance to the study's context and past measurement reliability. The four values: Functional, Social, Emotional, and Price-purchase for the denim product will be measured using the PERVAL scale developed by Sweeney and Soutar (2001). PERVAL, a 19-item measure was developed for use in retail purchase situation to determine what consumption values drive purchase attitude and behavior. Scales for four distinct value dimensions: emotional, social, quality/performance and price/value for money and purchase intentions were used in this study. The PERVAL scale has exhibited high validity and reliability. The social, quality/performance and price/value measures were adapted to form Social, Functional and Price-purchase measures and the emotional measures were adapted to form the Emotional Value measures for this research. The Voss et al. (2003) semantic differential scale that measures the hedonic and utilitarian dimensions of consumer attitudes toward product categories and different brands within categories was also used to form the utilitarian and hedonic scales. A few response items from this scale were used as basic indicators to form the Likert-scale measures used for the survey designed for this research. All measures required respondents to evaluate each denim product across each item on a seven-point Likert-type scale ranging from strongly disagree (1) to strongly agree (7).
Functional Value

The items measuring Functional Value were adapted from the Sweeney and Soutar (2001) and Voss et al. (2003) studies. These items were modified for the present study to make it suitable for apparel products. The items focused on the extent to which the participants see the product presented to them as functional in terms of quality and comfort. The three items used to measure Functional Value are presented in Table 3.1.

Table 3.1 Items used to measure Functional Value

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>This product is well-made</td>
</tr>
<tr>
<td>F2</td>
<td>This product has an acceptable standard of quality</td>
</tr>
<tr>
<td>F3</td>
<td>I would be comfortable using this product</td>
</tr>
</tbody>
</table>

Price-purchase Value

This scale measured the participants price/value for money and the purchase intentions for a product. The four items for this scale (shown in Table 3.2) were adapted from the PERVAL and purchase intentions scale by Sweeney and Soutar (2001).
Table 3.2 Items used to measure Price-purchase Value

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP1</td>
<td>I would be willing to buy this item</td>
</tr>
<tr>
<td>PP2</td>
<td>I would recommend this item to friends and relatives</td>
</tr>
<tr>
<td>PP3</td>
<td>This product is reasonably priced</td>
</tr>
<tr>
<td>PP4</td>
<td>This is a good product for the price</td>
</tr>
</tbody>
</table>

Environmental Value

The items for the Environmental Value scale were developed on the basis of a semantic differential scale proposed by Voss et al. (2003) which measures the hedonic and utilitarian dimensions of consumer attitudes toward product categories and brands. These items were modified to measure Environmental Value for apparel products within the context of this study. The items focused on the extent to which the participants see the product presented to them as environmentally friendly or sustainable. Table 3.3 presents the three items used to measure Environmental Value for this study.
Table 3. 3 Items used to measure Environmental Value

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>En1</td>
<td>This product is beneficial to environment</td>
</tr>
<tr>
<td>En2</td>
<td>This product is sustainable</td>
</tr>
<tr>
<td>En3</td>
<td>This product would make me feel environmentally conscious</td>
</tr>
</tbody>
</table>

Social Value

The items used to measure Social Value in this study were also adapted from the PERVAL scale developed by Sweeney and Soutar (2001). The Social Value scale measures the participants’ enhancement of social self-concept if they were to use the product. The four items used to measure Social Value can be found in Table 3.4.

Table 3. 4 Items used to measure Social Value

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>This item would help me feel acceptable</td>
</tr>
<tr>
<td>S2</td>
<td>This item would improve the way I am perceived</td>
</tr>
<tr>
<td>S3</td>
<td>This item would make a good impression on other people</td>
</tr>
<tr>
<td>S4</td>
<td>This item would give me social approval</td>
</tr>
</tbody>
</table>
Emotional Value

The four items used to measure Emotional Value which measures the affective feelings or states that the product generates were adapted from the Sweeney and Soutar (2001) scale. The wordings of items were modified to measure apparel products. Table 3.5 presents the items used to measure Emotional Value.

Table 3.5 Items used to measure Emotional Value

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Em1</td>
<td>This product would make me feel good</td>
</tr>
<tr>
<td>Em2</td>
<td>This product will arouse positive feelings in me</td>
</tr>
<tr>
<td>Em3</td>
<td>This product would make me happy</td>
</tr>
<tr>
<td>Em4</td>
<td>Buying this product would make me feel proud</td>
</tr>
</tbody>
</table>

Product Tags used for the Questionnaire

The first section of the survey was divided into four parts. In each section, the participants were shown a picture of an information tag for each of the three sustainability scenarios: “people”, “planet” and “product” as well as a control. Six different information tags were initially designed. Two for each category (i.e. “people”, “product” and “planet”): one, providing information about the product in words, and the other presenting similar information about the product using pictures. Two focus groups were conducted to
understand how participants would comprehend the information presented by these tags. Each focus group had 15 participants (undergraduate students from College of Textiles). Care was taken that these 30 participants did not take the final survey for this study to avoid bias. Also, the main aim of the first focus group was to make a decision on which tags (one with words or one with pictures) should be inserted in the final survey which was emailed to the participants for the study. The six survey tags designed for the purpose of focus groups can be seen in Appendix E. The description of each pair is as follows:

Pair 1: This pair of jeans will not have any information regarding the sustainability initiatives of the company.

Pair 2: This pair of jeans will have information regarding the sustainability initiatives related to “people” that the company is undertaking. These include worker rights and employee welfare information, philanthropic and community engagement activities.

Pair 3: This pair of jeans will have information regarding the sustainability initiatives related to “product” that the company is undertaking. These include information on raw materials from which the product is made.

Pair 4: This pair of jeans will have information regarding the sustainability initiatives related to “planet” that the company is undertaking. These include the resource conservation and waste management information.
The second focus group was designed to understand participants’ general views regarding the three different sustainability initiatives. An additional question was asked in this focus group to determine the average price-point of jeans that the participants own. This was asked to confirm that the prices on the product labels used in the study are appropriate. Also, the participants were asked if they consider the country of origin information when they buy a product. Based on this information the decision was made not to include the country of origin in the information tags for this study. Findings from these focus groups are presented in Chapter 5.

Data Analysis

Preliminary Analysis

An Exploratory Factor Analysis (EFA) was performed to see if the value dimensions chosen to study were separate, identifiable dimensions (i.e. loaded on separate factors). The dimensionality of the constructs was analyzed using the exploratory factor analysis with a Varimax rotation. The first step involved confirmation of the strength of the item loadings (i.e. over 0.40 for each of the items as a minimum requirement). The second step involved purification of the instrument (i.e. eliminating weak and cross-loaded items).

Using the final dataset, Confirmatory Factor Analysis (CFA) was performed to determine whether the scales used to measure the constructs require further modification. Nunnally (1967) defined reliability as “the extent to which [measurements] are repeatable and that any random influence which tends to make measurements different from occasion to occasion is minimized.”
occasion is a source of measurement error” (p.206). One of the main issues of reliability is internal consistency (i.e. the degree to which all the items of a construct measure that construct). The most commonly used indicator of internal consistency is Cronbach’s alpha for which the coefficient should be minimally above .70 (Cronbach, 1951). The scale reliabilities for this study were assessed using Cronbach’s alpha.

**Confirmatory Factor Analysis**

Confirmatory Factor Analysis (CFA) is a special case of structural equation modeling with latent variables in which the relationships among the latent variable are correlational rather than causal and the goal of the analysis is to examine the measurement model linking the latent variables to their indicators (Edwards and Bagozzi, 2000). CFA has advantages over an exploratory factor analysis (EFA) in that in a CFA the item loadings can be set to zero or some other constant, or they can be constrained in some other manner (e.g. one loading can be set equal to another) (Anderson, 1987).

In a CFA, the model adequacy is assessed using the factor loadings which should be statistically significant and in the expected direction, thereby demonstrating convergence of items on the intended factor. The measurement errors should be within meaningful bounds, being greater than zero and less than the variance of the corresponding item. And, the factor correlations should be significantly less than unity, which can be considered a minimum threshold for demonstrating discriminant validity.
The model fit is assessed using the chi-square test which is an omnibus test of the deviation between the original and reproduced covariance matrices. Larger values indicate greater deviations and, hence, a nonsignificant $\chi^2$ indicates adequate model fit. The other indices used to assess the model fit are Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Squared Residual (RMSR), Root Mean Squared Error of Approximation (RMSEA), Normed Fit Index (NFI), and Parsimonious Normed Fit Index (PNFI). Standards for fit indices have been debated for years (Barrett, 2007). Bentler and Bonett (1980) stated that a model with NFI values below 0.90 could be substantially improved. This statement led to the application of the 0.90 criterion for all Normed fit indices. More recently, Hu and Bentler (1999) recommended a criterion of 0.95 for such indices. However, the simulation used to derive this criterion used a 15-item, 3-factor measurement model with relatively minor misspecifications. Cheung and Rensvold (2001) suggest that lower criteria might be appropriate for more complex models or when larger degrees of misspecification are tolerable. For RMSEA, Browne and Cudeck (1993) suggested that a value of 0.05 represents close fit and a value of 0.08 indicates reasonable errors of approximation in the population. Hu and Bentler (1999) suggested a value of 0.06 as yielding an appropriate tradeoff between Type I and Type II errors. However, these criteria can depend on the complexity of the model, the degree of misspecification considered tolerable and sample size.
Hypothesis Testing

Once the scales were confirmed after fitting an acceptable CFA for each of the four scenarios (control, “people”, “planet” and “product”), the research hypotheses were evaluated using repeated measures. In repeated-measures design, each subject is administered one or more treatments and the performance on the dependent variable is measured after the administration of these treatments (Pedhazur, 1982 p. 552). For this study, the treatments are the four different product information tags that will be shown to the participants and dependent variables are the five values (Functional, Environmental, Price-purchase, Social, Emotional). The most important advantage of repeated-measures is that it allows the researcher to control for individual differences among the subjects. Individual differences are probably the largest source of variation in most research studies. Repeated-measures designs are also more economical than completely randomized designs as they lead to considerable savings in the number of subjects required for a given study. One of the potential problems that may adversely affect the internal and/or external validity of repeated-measures designs is the carry-over effect, which refers to situations in which treatments administered in the earlier sequence continue to affect the behavior of the subjects while they are being administered subsequent treatments. To counteract this, researchers often use the Latin square design (Hunter, 1987). In this design the treatments are assigned at random within rows and columns, with each treatment once per row and once per column. The repeated-measures analysis explained by Pedhazur (1982, Chapter 14, pp. 556) was followed to conduct the empirical analysis for this study. Also, to minimize the carry-over effect which
may be introduced due to use of repeated measures design, the order of presentation of the four scenarios (control, “people”, “product” and “planet”) was randomized using the Qualtrics software.

To summarize, this chapter presents the methods employed to collect data to address the two research objectives of this study. The chapter also explains the measures used for the empirical analysis. In addition, the steps for conducting the data collection and analysis are presented, as well as the analytical techniques used to test the study’s hypotheses.
Chapter 4

Data Analysis and Results

Research Objective I

To conduct a literature review that investigates the influence of sustainability on different consumer outcomes by examining the relationship between sustainability initiatives and customer loyalty, attitude, satisfaction, and consumer value.

In the current research the conceptual framework presented in Chapter 2 provides the basic framework to understand the impact of different sustainability initiatives marketed by the retailers on the consumer outcomes important from a marketing strategy perspective. The Phase I of this research comprised of compiling the literature in this area to identify the critical literature gaps and provide recommendations for future research (See Chapter 5).

Research Objective II

To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on formation of consumer value.

Research Objective II(a): To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on formation of
three different types of utilitarian values: Functional, Environmental and Price-purchase.

*Research Objective II(b):* To determine the effect of three different types of sustainability initiatives: “people”, “planet” and “product”, on formation of two different types of hedonic values: Emotional and Social.

The following sections of this chapter explain the data analysis and results of the quantitative analysis. First, the key findings from the two focus groups conducted for this study are discussed. Next, the sample characteristics are described followed by the measure refinement process. This process includes Exploratory Factor Analysis, reliability analysis, and Confirmatory Factor Analysis. Finally the hypothesis tests using the repeated measure procedure are presented. Of the 2,500 surveys emailed, 444 were completed and returned, yielding a response rate of 17.8 percent. After discarding the incomplete or otherwise unusable surveys, 225 usable responses were retained for the final sample. This drop in the number of usable responses was primarily because of missing data for more than one test scenarios for each respondent. If a respondent failed to provide responses for all the four test scenarios, such a case was dropped entirely to maintain a balanced design as unbalanced designs create difficulties for analysis of variance (SPSS User’s Guide, 2007). For a repeated measures design, a commonly accepted value for moderate sample size is 30 subjects (Maxwell and Delaney, 2000; Norusis, 2008). Therefore, the 225 usable responses retained for the final sample should yield accurate p values. For repeated measures method drop in the number of participants may be observed across different test scenarios as the time progresses.
The primary reason for this could be that some subjects may withdraw from the study before completing the entire sequence of treatments because of boredom and fatigue. In addition, for this research study there was no motivation for the participants to complete the entire survey as no incentives were provided.

**Focus Group Findings**

Prior to data collection, two focus groups were conducted to understand how participants perceive the information presented on the product labels designed for this study. As mentioned earlier, the first focus group was conducted to study which product labels (one with words or one with pictures) were more effective and easier to comprehend. The second focus group aimed to understand participants’ general views regarding the three different sustainability initiatives. An additional question addressed the second focus group probed average price-point of jeans that the participants currently own. This was asked to confirm that the prices on the product labels designed for the study are realistic. Also, the participants were asked if they look at country of origin information when they buy a product. Based on the responses of this focus group, the decision was made to not include the country of origin on the information tags for this study. Conclusions from the two focus groups are presented in Table 4.1.
## Table 4.1 Focus groups findings

<table>
<thead>
<tr>
<th>Focus Group 1</th>
<th>Focus Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Participants found pictures with short description to be more effective and attractive way of presenting information on product labels.</td>
<td></td>
</tr>
<tr>
<td>• The average price point for the entire group for the jeans owned was $70-$150.</td>
<td></td>
</tr>
<tr>
<td>• Only two participants (out of 30) mentioned that they look at the country of origin label and one of the two mentioned that he/she would be willing to pay more if the product was made in the U.S.A.</td>
<td></td>
</tr>
<tr>
<td>• Participants were ready to pay $10-$20 more for the “people” scenario (initiatives that involved donations to charities) and $5-$10 more for the “product” scenario (initiatives that involved using organic cotton) as they thought this was beneficial for environment.</td>
<td></td>
</tr>
<tr>
<td>• Very few participants were willing to pay more for the “planet” scenario. The primary reason for not paying more was that there was no way they could check if the claims made by the company regarding resource conservation were true.</td>
<td></td>
</tr>
<tr>
<td>• Overall, higher number of participants was willing to pay average $10 additional for the product if the product label clearly explained the sustainability initiatives adopted by the company.</td>
<td></td>
</tr>
</tbody>
</table>
Sample Characteristics

Demographic Characteristics

The students surveyed were asked to complete a series of questions to capture important demographic data. The following sections describe the four items used to measure respondents’ demographic characteristics: (a) age, (b) gender, (c) grade level, (d) gender, and (e) ethnic background.

**Age.** The highest percentage of respondents was in the age group of 18-20 years at 54 percent followed by the age group 21-23 which was at 35 percent. Ten percent of the respondents were between the ages 24-26. Table 4.2 presents the summary of age demographics.

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>121</td>
<td>53.7</td>
</tr>
<tr>
<td>21-23</td>
<td>78</td>
<td>34.6</td>
</tr>
<tr>
<td>24-26</td>
<td>24</td>
<td>10.6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.008</td>
</tr>
</tbody>
</table>

**Gender.** There were an equal number of male and female respondents for the survey. See table 4.3.
Table 4.3 Gender distribution of respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>113</td>
<td>50.22</td>
</tr>
<tr>
<td>Female</td>
<td>112</td>
<td>49.77</td>
</tr>
</tbody>
</table>

Grade Level and Major. Both the class standing and major of respondents indicated diversity. The majority of respondents were seniors and juniors (32.9 percent and 26.2 percent respectively). Freshmen and sophomores made up 23.1 percent and 17.7 percent of the sample, respectively. Table 4.4 presents the information about class standing for the sample. Since the survey respondents were chosen randomly from the entire pool of the undergraduate student population at NC State University, the survey respondents had different majors. The 225 respondents who constituted the final data sample came from 47 different majors. The list of these majors and frequency of respondents for each major is presented in Appendix F.

Table 4.4 Grade level of respondents

<table>
<thead>
<tr>
<th>Grade level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>52</td>
<td>23.1</td>
</tr>
<tr>
<td>Sophomore</td>
<td>40</td>
<td>17.7</td>
</tr>
<tr>
<td>Junior</td>
<td>59</td>
<td>26.2</td>
</tr>
<tr>
<td>Senior</td>
<td>74</td>
<td>32.9</td>
</tr>
</tbody>
</table>
Ethnic Group. The majority of the respondents were Caucasian (80 percent) followed by 8 percent African American and 6.67 percent Asian respondents. Table 4.5 gives the ethnic group distribution for the sample.

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>180</td>
<td>80</td>
</tr>
<tr>
<td>African American</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5</td>
<td>2.2</td>
</tr>
<tr>
<td>Asian</td>
<td>15</td>
<td>6.67</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>0.44</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>2.67</td>
</tr>
</tbody>
</table>

Measurement Refinement

The measures used in the study were refined to retain only items that are most relevant, valid and reliable. Fabrigar et al. (1999) suggest that it is useful to use Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) in conjunction with one another. An initial EFA provides a basis for specifying a subsequent CFA. Study measures were examined using EFA, reliability evaluation using Cronbach’s Alpha, and CFA. The unidimensionality of the measures was then examined using CFA for each of the four
scenarios (control, “people”, “product” and “planet”). After fitting an acceptable confirmatory factor model for the four scenarios separately, the hypotheses were tested using the repeated measures.

**Exploratory Factor Analysis**

Principal component analysis using a varimax rotation was conducted to analyze the 19 items developed for this study. Principal Component Analysis (PCA) is considered to be a variant of factor analysis (Kim and Mueller, 1984). The varimax rotation was chosen as it is an orthogonal method of rotation that “keeps the underlying factors independent” (Field 2005, p. 740). The output for the principal component analysis (see Appendix E) indicates five factors with eigenvalues over one. While the first factor explains 40 percent of the variance, the factors two through five explain 12 percent, nine percent, eight percent, and 5 percent variance respectively. Thus, total variance explained by these five factors was 74 percent. One item was eliminated because it did not contribute to a simple factor structure and failed to meet the minimum criteria for having a primary factor loading of 0.4 or above, and no cross-loading of 0.3 or above. The item “I would not expect any problems with this item” indicated cross-loadings between 0.3 and 0.5 on two factors.

A final PCA for the remaining 18 items, using Varimax rotation, with five factors explaining 77 percent of the variance. In this case, the first factor explained 42 percent of the variance while the factors two through five explained 13 percent, nine percent, eight percent, and six percent of the variance, respectively. All the items in this analysis indicated a primary
loading over 0.5. The best fit Varimax rotation also contained five dimensions. The decision to choose this rotation with five dimensions was supported by the information given in the scree plot (Figure 4.1) which “levels off” after five factors. The factor loading matrix for this final solution is presented in Table 4.6.

**Table 4.6** Factor loadings based on principal component analysis with varimax rotation

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.910</td>
</tr>
<tr>
<td>F2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.906</td>
</tr>
<tr>
<td>F3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.375</td>
</tr>
<tr>
<td>PP1</td>
<td></td>
<td>0.857</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP2</td>
<td></td>
<td>0.817</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP3</td>
<td></td>
<td>0.848</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP4</td>
<td></td>
<td>0.803</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>En1</td>
<td></td>
<td></td>
<td>0.842</td>
<td></td>
<td></td>
</tr>
<tr>
<td>En2</td>
<td></td>
<td></td>
<td>0.752</td>
<td></td>
<td></td>
</tr>
<tr>
<td>En3</td>
<td></td>
<td></td>
<td>0.801</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>0.750</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>0.883</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>0.851</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>0.854</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Em1</td>
<td></td>
<td></td>
<td>0.732</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Em2</td>
<td></td>
<td></td>
<td>0.728</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Em3</td>
<td></td>
<td></td>
<td>0.743</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Em4</td>
<td></td>
<td></td>
<td>0.520</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reliability Analysis

In order to evaluate the reliability of the scales used in the study, Cronbach’s Alpha, ranging from zero to one was used. Cronbach’s Alpha increases as the correlations between items increases, with values of one indicating higher reliability (Hair et al., 1995). Cronbach’s Alpha values of 0.70 and higher are considered acceptable when determining reliability (Cronbach, 1951). Table 4.7 presents the reliability coefficients for the measures in the study. All items in Price-purchase, Environmental, Social and Emotional Value measures were retained because the associated reliability coefficients were greater than 0.70. The

Figure 4. 1 Five Component Scree Plot
Cronbach’s Alpha for the original Functional Value scale was 0.782. However, item F3- “I would feel comfortable using this product” was eliminated to increase the Cronbach’s Alpha value to 0.903. Since this item was eliminated, only two items remain for analysis. Pearson’s correlation coefficient was used to evaluate the consistency between these two items. The test indicated a positive, significant estimate (R=0.872, p-value=0.000), supporting the use of these items in the measurement model. Finally, two out of the original three Functional Value items were retained.

**Table 4. 7 Reliability Analysis of Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Final Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>0.903</td>
</tr>
<tr>
<td>Price-purchase</td>
<td>0.907</td>
</tr>
<tr>
<td>Environmental</td>
<td>0.773</td>
</tr>
<tr>
<td>Social</td>
<td>0.914</td>
</tr>
<tr>
<td>Emotional</td>
<td>0.874</td>
</tr>
</tbody>
</table>

**Confirmatory Factor Analysis**

The EFA solutions are exploratory in nature because they are based primarily on the statistical relationships between indicators. Thus, these solutions are intended only as a guideline concerning the underlying structures of the research constructs which need to be
validated using a confirmatory technique (Hair et al., 1995). The measurement models
developed based on findings from the EFAs, were tested using Confirmatory Factor Analysis
(CFA). Four CFA models, one for each scenario (control, “people”, “product”, “planet”) were tested. For studies with large sample sizes (e.g. 200 or more), the chi-square test
typically does not indicate a good model fit (p<0.001) when applied to a CFA (Bollen, 1989). For this reason other major fit indices such as the normed chi-square ($\chi^2$/df), goodness-of-fit index (GFI), normed fit index (NFI), root mean square error of approximation (RMSEA), etc. tend to be consulted (Hu and Bentler, 1999; Hair et al., 2006) (Table 4.8)

<table>
<thead>
<tr>
<th>Fit measure</th>
<th>Acceptable Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normed chi-square ($\chi^2$/df)</td>
<td>1-3</td>
</tr>
<tr>
<td>Goodness-of-fit index (GFI)</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>Adjusted goodness-of-fit index (AGFI)</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>Normed fit index</td>
<td>&gt;0.9</td>
</tr>
<tr>
<td>Root mean square error of approximation (RMSEA)</td>
<td>&lt;0.08</td>
</tr>
</tbody>
</table>

Source: Compiled from Bollen (1989), Hair et al., (2006), Hu and Bentler (1999)

The CFA results also help substantiate construct validity that was established by EFA. Doll et al. (1994) suggest that the validity of the indicators is demonstrated by the standard factor loadings of indicators on their factors in the measurement models. Thus, the indicators that have high loadings on their respective factors suggest convergent validity. The following sections present the results of CFA conducted for each of the four scenarios: control, “people”, “product”, and “planet”.

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CFA for control. Initial results indicated a relatively poor fit \( \chi^2 (109) = 417.279; \) 
p<0.000; \( \chi^2/df = 3.83; \) GFI = 0.830; AGFI = 0.761; CFI = 0.890; RMSEA = 0.112. The modification indices for the within factor correlated error terms showed the error terms for the item PP3, “I would be willing to buy this item” and item PP4, “I would recommend this item to friends and relatives” produced a modification index of 96.21. The error terms of these two items were allowed to correlate since it seems reasonable that someone who is willing to buy an item for personal use would also be willing to recommend it to others. After these error terms were allowed to correlate there was improvement in the overall fit \( \chi^2 (108) = 301.181; \) p<0.000; \( \chi^2/df = 2.789; \) GFI = 0.868; AGFI = 0.813; CFI = 0.931; RMSEA = 0.089. The within factor correlation for item S1, “This item would make me feel acceptable” with all the items for Emotional Value produced a modification index of 84.27. It is possible that being socially acceptable could signal Emotional Value for a respondent. Therefore, the item S1, “This item would make me feel acceptable” was dropped from the Social Value scale. After these changes were made in the CFA model, it was run again and indicated an overall improvement in the fit \( \chi^2 (93) = 216.731; \) p<0.000; \( \chi^2/df = 2.330; \) GFI = 0.893; AGFI = 0.844; CFI = 0.952; RMSEA = 0.077. All these values were close to or within the acceptable ranges and thus, this confirmatory factor analytic model was accepted. As shown in the CFA model in Figure 4.2, all the indicators have high loadings on their respective factors, while correlation between the latent variables is relatively low. This provides evidence of convergent validity and discriminant validity (Segars and Grover, 1993).
Figure 4.2 Final CFA Model for the Control Scenario
CFA for people. The initial results indicated that the model fit was not adequate \([\chi^2 (109) = 431.277; p<0.000; \chi^2/df = 3.957; GFI = 0.827; AGFI = 0.758; CFI = 0.913;\text{ RMSEA} = 0.115]\). Similar to the control scenario, the modification indices for the within factor correlated error terms showed the error terms for the item PP3, “I would be willing to buy this item” and item PP4, “I would recommend this item to friends and relatives” produced a modification index of 112.284. Therefore, the error terms of these two items were allowed to correlate. This led to considerable improvement in the model fit \([\chi^2 (108) = 289.207; p<0.000; \chi^2/df = 2.678; GFI = 0.876; AGFI = 0.825; CFI = 0.951;\text{ RMSEA} = 0.087]\). The item En3, “This product would make me feel environmentally conscious”, showed within-factor correlation with items for the Social and Emotional Value scale with a modification index of 129.754. Respondents who considered environmentally friendly behavior as an important value may view such behavior as adding to their social image or imparting positive Emotional Value. Therefore, this item was dropped and the CFA model was run again.

This indicated a slight improvement in the model fit \([\chi^2 (93) = 222.086; p<0.000; \chi^2/df = 2.388; GFI = 0.898; AGFI = 0.851; CFI = 0.963;\text{ RMSEA} = 0.079]\). All these values were close to or within the acceptable ranges and thus, this confirmatory factor analytic model was accepted. All the indicators have high loadings on their respective factors, while correlation between latent variable is relatively low (See Figure 4.3), which provides the evidence of convergent and discriminant validity for this scenario too.
Figure 4. Final CFA Model for the “People” Scenario
CFA for product. The initial outputs for this scenario indicated that the model fit was not adequate \( [\chi^2 (109) = 455.840; p<0.000; \chi^2/df = 4.182; \text{GFI} = 0.820; \text{AGFI} = 0.747; \text{CFI} = 0.911; \text{RMSEA} = 0.119] \). However, the fit indices strengthened significantly indicating a reasonably good fit \( [\chi^2 (79) = 197.538; p<0.000; \chi^2/df = 2.500; \text{GFI} = 0.899; \text{AGFI} = 0.846; \text{CFI} = 0.964; \text{RMSEA} = 0.082] \), when the error terms for items PP3, “I would be willing to buy this item” and PP4, “I would recommend this item to friends and relatives”, were allowed to correlate. Also, the item, S1: “This item would make me feel acceptable”, was dropped. Conceptually, the exclusion of this indicator did not have any significant impact on the interpretability or meaning of the solution. The discriminant and convergent validity of the factors are generally high, as are the reliability scores of the individual indicators (See Figure 4.4).
Figure 4. Final CFA Model for the “Product” Scenario
CFA for planet. Initial results of the CFA model for this scenario indicated that the model fit was not adequate \( \chi^2 (109) = 464.791; p<0.000; \chi^2/df = 4.264; \text{GFI} = 0.861; \text{AGFI} = 0.742; \text{CFI} = 0.919; \text{RMSEA} = 0.121 \). Similar to other scenarios, the modification indices for the within factor correlated error terms showed the error terms for the item PP3, “I would be willing to buy this item” and item PP4, “I would recommend this item to friends and relatives” produced a modification index of 58.117. So, these error terms were allowed to correlate. This only showed a slight improvement in the model fit \( \chi^2 (108) = 395.540; p<0.000; \chi^2/df = 3.662; \text{GFI} = 0.839; \text{AGFI} = 0.772; \text{CFI} = 0.935; \text{RMSEA} = 0.109 \). The total modification index for within-factor correlation for item En3, “This product would make me feel environmentally conscious” with all the items of the Social Value and Emotional Value scales was 250.137. Therefore this item was dropped. This change also led to a slight improvement in fit \( \chi^2 (93) = 304.107; p<0.000; \chi^2/df = 3.270; \text{GFI} = 0.865; \text{AGFI} = 0.802; \text{CFI} = 0.949; \text{RMSEA} = 0.101 \). Next, the item S1, “This item would make me feel acceptable”, was dropped as the within-factor correlation for this item with Functional Value scale items and Emotional Value scale items produced an overall modification index of 164.318. After these changes were made, the CFA model was run again and it showed a significant improvement in the fit \( \chi^2 (79) = 213.196; p<0.000; \chi^2/df = 2.699; \text{GFI} = 0.892; \text{AGFI} = 0.836; \text{CFI} = 0.964; \text{RMSEA} = 0.087 \). All these values were close to the acceptable ranges and based on the results of this analysis the confirmatory factor analytic model was accepted.
Figure 4.5 Final CFA Model for the “Planet” Scenario
Repeated Measures Analysis

After the factor structure of the measures was verified using the CFA models for each scenario, the composite scores for all latent variables (value dimensions) were obtained. To ensure that the scores for latent variables were calculated using the same indicators for all the four scenarios, a common factor structure was adopted for all the four scenarios. This was done by excluding an item from all the four models if it was excluded from one of the four CFA models. The items measuring each of the five consumer values which were used to calculate the scores of latent variable are shown in Table 4.9 below.

**Table 4.9 Items used to calculate scores for latent variables**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional Value</strong></td>
<td>F1: This product is well-made</td>
</tr>
<tr>
<td></td>
<td>F2: This product has an acceptable standard of quality</td>
</tr>
<tr>
<td><strong>Price-Purchase Value</strong></td>
<td>PP1: This product is reasonably priced</td>
</tr>
<tr>
<td></td>
<td>PP2: This is a good product for the price</td>
</tr>
<tr>
<td></td>
<td>PP3: I would be willing to buy this item</td>
</tr>
<tr>
<td></td>
<td>PP4: I would recommend this item to friends and relatives</td>
</tr>
<tr>
<td><strong>Environmental Value</strong></td>
<td>En1: This product is beneficial to environment</td>
</tr>
<tr>
<td></td>
<td>En2: This product is sustainable</td>
</tr>
<tr>
<td><strong>Social Value</strong></td>
<td>S2: This item would improve the way I am perceived</td>
</tr>
<tr>
<td></td>
<td>S3: This item would make a good impression on other people</td>
</tr>
<tr>
<td></td>
<td>S4: This item would give me social approval</td>
</tr>
<tr>
<td><strong>Emotional Value</strong></td>
<td>Em1: This product would make me feel good</td>
</tr>
<tr>
<td></td>
<td>Em2: This product will arouse positive feelings in me</td>
</tr>
<tr>
<td></td>
<td>Em3: This product would make me happy</td>
</tr>
<tr>
<td></td>
<td>Em4: Buying this product would make me feel proud</td>
</tr>
</tbody>
</table>
Next, the repeated measures method was used to test the hypotheses to understand the effect of three different types of sustainability initiatives “people”, “planet” and “product” on the five different types of consumer values: Functional, Price-purchase, Environmental, Social and Emotional. The following sections present the results for repeated measures used for testing each of the five main hypotheses and their sub-hypotheses.

**Hypothesis one.** Hypothesis one states that Functional Value would differ for the four scenarios (control, “people”, “product” and “planet”) used in this study. To test this hypothesis, a repeated measure one-way ANOVA was used. The Mauchly’s test of sphericity indicated that the assumption of sphericity has been violated. So, the repeated measures analysis was done using a correctional Greenhouse-Geisser adjustment. The repeated measures ANOVA with the Greenhouse-Geisser correction determined that the mean Functional Value derived from the product did not differ statistically significantly for different sustainability initiatives \[F(2.71, 606.956) = 2.470, p= 0.067\]. The SPSS output for this test is presented in Appendix G.

This analysis does not provide information that there is an effect of marketing sustainability initiatives on the perception of Functional Value of the product. To answer this question, paired sample t-tests were conducted between the “control” group and each of the three sustainability initiatives group: “people”, “planet” and “product”. The results for these tests (See Table 4.10) show that for all three pairs the p-value is greater than 0.05 which suggests that there is no statistically significant difference between Functional Value for the control group and any of the three sustainability initiatives.
Table 4.10 Paired Sample t-tests between control and three sustainability initiatives for Functional Value

<table>
<thead>
<tr>
<th>Pair</th>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Control_Functional - People_Functional</td>
<td>.01587</td>
<td>.74930</td>
<td>.04995</td>
<td>.318</td>
<td>224</td>
<td>.751</td>
</tr>
<tr>
<td>Pair 2</td>
<td>Control_Functional - Product_Functional</td>
<td>.00707</td>
<td>.88980</td>
<td>.05932</td>
<td>.119</td>
<td>224</td>
<td>.905</td>
</tr>
<tr>
<td>Pair 3</td>
<td>Control_Functional - Planet_Functional</td>
<td>-.10898</td>
<td>.89137</td>
<td>.05942</td>
<td>-1.834</td>
<td>224</td>
<td>.068</td>
</tr>
</tbody>
</table>

**Hypothesis two.** The hypothesis two states that there will be difference between the Price-purchase Value for the four scenarios: control, “people”, “product” and “planet”. The Mauchly’s test of sphericity indicated that the assumption of sphericity had been violated. A repeated measures ANOVA with the Greenhouse-Geisser correction determined that the mean Price-purchase Value differed statistically significantly for the four scenarios: control, “people”, “product” and “planet”, [F(1.981, 442.732) = 28.245, p < 0.0005]. The SPSS output for this test is presented in Appendix H.

Post hoc tests using the Bonferroni correction (See Table 4.11) revealed that there is a significant difference in the Price-purchase Value for all possible combination pairs formed between control (M = 3.73, SD = 1.44), people (M = 4.32, SD = 1.43), product (M = 3.91, SD = 1.58) and planet (M = 4.06, SD = 1.62). The tests show that the means of Price-purchase Value for the each of three sustainability initiatives were higher than control group. Also, the mean Price-purchase Value for “people” was higher than the respective Price-
purchase Value for “planet” scenario and “product” scenario while the mean Price-purchase Value for “planet” was higher than that for “product”.

Table 4. 11 Paired sample t-tests between four scenarios for Price-purchase Value

<table>
<thead>
<tr>
<th>Pair</th>
<th>Paired Differences</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1</td>
<td>Control_PricePI - People_PricePI</td>
<td>-.59057</td>
<td>.85859</td>
<td>.05724</td>
</tr>
<tr>
<td>Pair 2</td>
<td>Control_PricePI - Product_PricePI</td>
<td>-.18067</td>
<td>1.19670</td>
<td>.07978</td>
</tr>
<tr>
<td>Pair 3</td>
<td>Control_PricePI - Planet_PricePI</td>
<td>-.32852</td>
<td>1.25918</td>
<td>.08395</td>
</tr>
<tr>
<td>Pair 4</td>
<td>People_PricePI - Product_PricePI</td>
<td>.40990</td>
<td>.92905</td>
<td>.06194</td>
</tr>
<tr>
<td>Pair 5</td>
<td>People_PricePI - Planet_PricePI</td>
<td>.26204</td>
<td>.96915</td>
<td>.06461</td>
</tr>
<tr>
<td>Pair 6</td>
<td>Product_PricePI - Planet_PricePI</td>
<td>.14786</td>
<td>.63275</td>
<td>.04218</td>
</tr>
</tbody>
</table>

**Hypothesis Three.** The third hypothesis states that the Environmental Value will differ for the four scenarios: control, “people”, “product”, and “planet”. A repeated measures ANOVA with the Greenhouse-Geisser correction determined that the mean Environmental Value differed statistically significantly \[F(2.325, 520.888) = 181.526, p < 0.0005\] for the four scenarios: control, “people”, “product” and “planet”. The Greenhouse-Geisser correction was used as Mauchly’s test of sphericity indicated that the sphericity assumption has been violated. The SPSS output for this test is presented in Appendix I.
Table 4.12 Paired sample t-tests between four scenarios for Environmental Value

<table>
<thead>
<tr>
<th>Pair</th>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Control_Environmental - People_Environmental</td>
<td>-.16658</td>
<td>.91510</td>
<td>.06101</td>
<td>-2.730</td>
<td>224</td>
<td>.007</td>
</tr>
<tr>
<td>2</td>
<td>Control_Environmental - Product_Environmental</td>
<td>-1.2814</td>
<td>1.29897</td>
<td>.08660</td>
<td>-14.798</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>Control_Environmental - Planet_Environmental</td>
<td>-1.3586</td>
<td>1.27556</td>
<td>.08504</td>
<td>-15.977</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>4</td>
<td>People_Environmental - Product_Environmental</td>
<td>-1.1148</td>
<td>1.13837</td>
<td>.07589</td>
<td>-14.690</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>5</td>
<td>People_Environmental - Planet_Environmental</td>
<td>-1.1920</td>
<td>1.19871</td>
<td>.07991</td>
<td>-14.917</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>6</td>
<td>Product_Environmental - Planet_Environmental</td>
<td>-0.07722</td>
<td>.88468</td>
<td>.05898</td>
<td>-1.309</td>
<td>224</td>
<td>.192</td>
</tr>
</tbody>
</table>

The post hoc analysis (See Table 4.12) indicated that there was a statistically significant difference for the mean Environmental Value showed by paired sample t-test between control (M = 4.21, SD = 1.04) and people (M = 4.38, SD = 1.14); control (M = 4.21, SD = 1.04) and product (M = 5.49, SD = 1.16); control (M = 4.21, SD = 1.04) and planet (M = 5.57, SD = 1.10); people (M = 4.38, SD = 1.14) and product (M = 5.49, SD = 1.16); people (M = 4.38, SD = 1.14) and planet (M = 5.57, SD = 1.10). However, there was no statistically significant difference shown by the paired sample t-tests for mean Environmental Value between product (M = 5.49, SD = 1.16) and planet (M = 5.57, SD = 1.10). Also, Table 4.12 shows that the mean Environmental Value for each of three sustainability initiatives is higher.
than the control group, and that for the “people” scenario is lower than the mean Environmental Value for both the planet and the product scenarios.

**Hypothesis Four.** The hypothesis four states that there is difference between the Social Value for all the four scenarios: control, “people”, “product” and “planet”. The repeated measures ANOVA with the Greenhouse-Geisser correction determined that the mean Social Value differed statistically significantly for the four scenarios: control, “people”, “product” and “planet”, \[F(2.413, 540.504) = 18.403, p < 0.0005\]. The Greenhouse-Geisser correction was used as Mauchly’s test of sphericity indicated that the sphericity assumption has been violated. The SPSS output for this test is presented in Appendix J.

The post-hoc analysis (see Table 4.13) done using paired sample t-tests indicated that there was a statistically significant difference for mean Social Value for control (\(M = 3.75\), SD = 1.28) and all the three sustainability initiatives: people (\(M = 4.10\), SD = 1.41), product (\(M = 4.08\), SD = 1.38) and planet (\(M = 4.08\), SD = 1.47). Also, in all these three cases the mean Social Value for sustainability initiatives was higher than that for the control group. There was no statistically significant difference between the pair-wise comparisons of the three sustainability initiatives.
Table 4. Paired sample t-tests between four scenarios for Social Value

<table>
<thead>
<tr>
<th>Pair</th>
<th>Scenario A</th>
<th>Scenario B</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Control - Social</td>
<td>People - Social</td>
<td>-.35721</td>
<td>.79327</td>
<td>.05288</td>
<td>-6.755</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 2</td>
<td>Control - Social</td>
<td>Product - Social</td>
<td>-.33351</td>
<td>.91009</td>
<td>.06067</td>
<td>-5.497</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 3</td>
<td>Control - Social</td>
<td>Planet - Social</td>
<td>-.32644</td>
<td>.98937</td>
<td>.06596</td>
<td>-4.949</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 4</td>
<td>People - Social</td>
<td>Product - Social</td>
<td>.02370</td>
<td>.76857</td>
<td>.05124</td>
<td>.463</td>
<td>224</td>
<td>.644</td>
</tr>
<tr>
<td>Pair 5</td>
<td>People - Social</td>
<td>Planet - Social</td>
<td>.03077</td>
<td>.91656</td>
<td>.06110</td>
<td>.504</td>
<td>224</td>
<td>.615</td>
</tr>
<tr>
<td>Pair 6</td>
<td>Product - Social</td>
<td>Planet - Social</td>
<td>.00707</td>
<td>.61213</td>
<td>.04081</td>
<td>.173</td>
<td>224</td>
<td>.863</td>
</tr>
</tbody>
</table>

**Hypothesis Five.** The hypothesis five states that the Emotional Value will be different for the four different scenarios: control, “people”, “product” and “planet”. The Greenhouse-Geisser correction was used for this repeated measures analysis as the assumption of sphericity was violated in this case, too. The results of the repeated measures ANOVA suggest that determined that the mean Emotional Value differed statistically significantly for the four scenarios: control, “people”, “product” and “planet”, [F(2.426, 543.412) = 33.604, p < 0.0005]. The SPSS output for this test is presented in Appendix K.

The results of the paired sample t-tests which were conducted for post-hoc analysis (see Table 4.14) show that the mean Emotional Value is statistically different between control (M = 4.19, SD = 1.1) and all the three sustainability initiatives scenarios: people (M =
4.76, SD = 1.28), product (M = 4.62, SD = 1.34) and planet (M = 4.66, SD = 1.42) such that the mean Emotional Value for each sustainability initiative is higher than that for control. Also, there was a statistically significant difference between mean Emotional Value for people (M = 4.76, SD = 1.28) and product (M = 4.62, SD = 1.34) such that the mean Emotional Value for people is higher than the mean Emotional Value of product.

Table 4. 14 Paired sample t-tests between four scenarios for Emotional Value

<table>
<thead>
<tr>
<th>Pair</th>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
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<tbody>
<tr>
<td>Pair 1</td>
<td>Control_Emotional - People_Emotional</td>
<td>-.56413</td>
<td>.92997</td>
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<td>-9.099</td>
<td>224</td>
<td>.000</td>
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<tr>
<td>Pair 2</td>
<td>Control_Emotional - Product_Emotional</td>
<td>-.42271</td>
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<td>-6.258</td>
<td>224</td>
<td>.000</td>
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<td>Pair 3</td>
<td>Control_Emotional - Planet_Emotional</td>
<td>-.46786</td>
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<td>-6.408</td>
<td>224</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 4</td>
<td>People_Emotional - Product_Emotional</td>
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<td>.84718</td>
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<td>2.504</td>
<td>224</td>
<td>.013</td>
</tr>
<tr>
<td>Pair 5</td>
<td>People_Emotional - Planet_Emotional</td>
<td>.09628</td>
<td>.88864</td>
<td>.05924</td>
<td>1.625</td>
<td>224</td>
<td>.106</td>
</tr>
<tr>
<td>Pair 6</td>
<td>Product_Emotional - Planet_Emotional</td>
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<td>.63574</td>
<td>.04238</td>
<td>-1.065</td>
<td>224</td>
<td>.288</td>
</tr>
</tbody>
</table>

Summary

The data analysis of data provides support for the reliability and validity of the measures used in this study. Four of the five hypotheses were supported by statistical tests. Price-purchase Value, Environmental Value, Social Value and Emotional Value differed for the four different scenarios used in this study: control, “people”, “product” and “planet”.

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However, H1, suggesting that Functional Value differs for these four scenarios, was not supported. In addition to these results, the post-hoc analysis provided information about the relative impact of the three sustainability initiatives on the five different consumer values.

Table 4.15 Review of Hypothesis Test Results

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1:</strong> Functional Value differs across the four scenarios: control, “people”, “product” and “planet”</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>H2:</strong> Price-purchase Value differs across the four scenarios: control, “people”, “product” and “planet”</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H3:</strong> Environmental Value differs across the four scenarios: control, “people”, “product” and “planet”</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H4:</strong> Social Value differs across the four scenarios: control, “people”, “product” and “planet”</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>H5:</strong> Emotional Value differs across the four scenarios: control, “people”, “product” and “planet”</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Analysis Method: Repeated Measures ANOVA
Chapter 5

Conclusions, Implications, Limitations, and Future Research

In recent years, the topic of sustainability has captured unprecedented attention of the business world. The business environment has experienced a significant shift towards recognition based on corporate social performance, environmental performance and corporate reputation (Chabowski, et. al., 2010). A fortiori, companies have started focusing on obtaining environmental and social benefits in addition to economic benefits (Elkington, 1998). Since the concept of sustainability is not clearly defined, companies are still not sure of the level of investment they should make towards environmental efforts nor are they sure of the measurable benefits they might achieve through these investments. One of the major challenges for incorporating sustainability initiatives is that there are no metrics to measure company profits gained through sustainable efforts. An added challenge is the ability of company to influence consumer purchasing behavior for ‘sustainable’ products. In today’s global marketplace, it is important for marketers to study consumers’ attitudes and buying behavior toward ‘sustainable’ products before a business pursues sustainability initiatives.
The overall purpose of this research was to understand the impact of sustainability initiatives marketed by brands and retailers on different consumer outcomes from the marketing perspective. Phase I of this research presents a comprehensive framework which integrated the extant marketing and strategy literature within the sustainability and Corporate Social Responsibility (CSR) domain. The information presented through this phase of research is predominantly anecdotal rather than empirical. The second phase of this research comprised of a mixed research design (both qualitative and quantitative methods) to investigate the impact of sustainability initiatives marketed by retailers on the perception of consumer value. Specifically, this study aimed to determine if different types of sustainability initiatives affect consumers’ perception of value.

This chapter presents an overview and discussion of the results of the study from both a theoretical and a practical perspective. This includes an analysis of the contribution to the theoretical literature in the area of marketing strategy for sustainability as well as discussion of the application of the results to applied areas in the marketing field. Further, limitations are discussed and recommendations for future research are suggested.

Discussion

Two focus groups were conducted to investigate consumer attitudes about the three sustainability initiatives chosen for this study. The participants provided responses to various questions such as the average price of jeans that they own and their views on product labels which were designed for this study. The focus groups explored the rationale behind why
some participants would be ready to pay more for products marketed using the “people” sustainability initiatives. The primary reason for this was that the participants viewed donations to charitable organizations or events as more personal to them since these donations would benefit other individuals. Another important outcome from the focus groups was that the participants were willing to pay a higher price for a product if they were convinced that the claim made by the marketer was trustworthy. This is also evident in a study conducted by Thøgersen (2002) which showed that consumers pay attention to and use environmental labels in their buying decisions only if they trust the claims made by the marketer. For this reason, the participants suggested that if a product label provided all of the information about the firm’s sustainability claim clearly, it would help them make an informed purchase. The insights gained from these focus groups guided the survey design process.

The five hypotheses developed for this study explored the nature of the relationships between three types of sustainability initiatives (“people”, “product” and “planet”) and five consumer values: Functional, Price-purchase, Environmental, Social and Emotional. The statistical results indicated that four out of five hypotheses were supported (Table 4.15). The data analyses shows that Price-purchase Value, Environmental Value, Social Value and Emotional Value differ across the four scenarios (control, “people”, “product” and “planet”) in the jean purchasing context. In contrast results indicate that Functional Value does not differ across these four scenarios. This provides evidence that sustainability initiatives significantly affect four of the five consumer values examined in this research.
**Functional Value**

The analysis for Functional Value indicates that consumers do not perceive product quality to be supplemented by any of the three sustainability initiatives related to “people” (involving community), “product” (involving raw materials) or “planet” (involving resource conservation). The post-hoc analysis also showed that there is no significant difference in the perception of Functional Value between the “control” group and each of the three sustainability initiatives (“people”, “product” and “planet”). A possible explanation for this finding is that there may be attributes other than sustainability which are better indicators of product quality. A measure of perceived product quality was developed by Stone-Romero and Stone (1997) which provides scales for measuring four general dimensions of quality (i.e., flawlessness, durability, appearance, and distinctiveness). The flawlessness dimension of perceived product quality has to do with individuals’ beliefs about the number and types of defects in a product while the durability dimension has to do with consumers’ beliefs about the life-expectancy of a product. The third dimension, appearance, has to do with aesthetics and stylishness of the product and the fourth dimension of distinctiveness is the product’s capacity to enhance the status of possessor through uniqueness and luxuriousness. The three sustainability initiatives scenarios used for this research may not imply any of the four quality dimensions defined by Stone-Romero and Stone (1997). Thus, the participants did not perceive any additional Functional Value across the four test scenarios.

A graph of the means associated with each of the five types of value shows that across all four scenarios (control, “people”, “product” and “planet”), the mean Functional Value
was approximately 4.9 which is higher than the mean values for all other consumer value dimensions (i.e., except the mean for Environmental Value for the “product” and “planet” scenarios) (Appendix L). A potential explanation for this finding is product used for this study (i.e., jeans) is primarily associated with utilitarian purposes and is viewed as a product that provides high functionality and comfort to the wearer. It is possible that the product manipulation may change the mean Functional Value. Apparel items that are lower in Functional Value (e.g., shirt, evening dress, t-shirt, etc.) may indicate a different result.

**Price-purchase Value**

The analysis for Price-purchase Value suggests that consumers are both willing to purchase and to pay more for a product that provides sustainability information compared to a product which does not provide any sustainability information. Further investigation showed that consumers would be ready to pay more for the “people” related sustainability initiatives (i.e., initiatives related to community welfare and philanthropy) compared to products which support “planet” or “product” initiatives. These findings are similar to outcomes from the focus groups conducted for this study. Focus group participants also suggested that they were ready to pay an average of ten dollars to 15 dollars more than the current price for a product claiming the “people” initiative and an average of five dollars more for a product either claiming the “product” initiative or the “planet” initiative.

Wustenhagen and Bilharz (2006) indicate that there is a segment of customers (i.e., green consumers) whose objective is to make sure their money does not support
unsustainable energy practices or who want to contribute to climate protection in their personal choice. Also, findings of this research support the results of the experiment conducted by Kahneman and Knetsch (1992) which showed that individuals are more willing to contribute to the public good as it leads to moral satisfaction. The findings of this study also support the results of vast number of studies which claim that consumers are willing to pay higher prices for products produced by socially responsible companies, or to take the social responsibility profile of the producer into consideration when comparing different brands (Creyer and Ross, 1997; Ellen et al., 2000; Mohr et al., 2001). However, Page and Fearn (2005) suggest that these studies fall short of relating consumer perceptions to actual purchasing behavior which gives rise to an ‘attitude–behavior gap’ presented by Boulstridge and Carrigan (2000). The latter study suggests that consumers like to express willingness to make ethical purchases, but social responsibility may not be an effective criterion when they actually go shopping.

However, the findings of this research are contrary to popular industry opinion. Most industry personnel interviewed during the preliminary stages of this research echoed the opinion that their market research suggests that consumers are not willing to pay more for sustainable products. A potential reason for contrasting findings of this research may be due to the manner that Price-purchase Value scale is constructed. Two scale items focus upon the appropriateness of price (i.e., “This product is reasonably priced”, “This is a good product for the price”) and the remaining two items focus upon purchase intentions (i.e., “I would be willing to buy this item”, “I would recommend this item to friends and relatives”). As a
result, the findings related to Price-purchase Value may be driven by the purchase intention items, thus inflating the scores related to the price appropriateness items.

The study also indicated that the “product” related initiatives have a higher impact than the “planet” related initiatives on consumers’ perception of Price-purchase Value. A possible explanation for this could be derived from the discussions during the focus groups. The focus group participants suggested that they would be more willing to buy an apparel item supporting “product” related initiatives rather than an item supporting “planet” related initiatives (e.g. an item made of environmentally friendly materials would be preferred over an item manufactured by a process involving resource conservation). The focus group indicated that the personal connection to the product delivers a direct benefit to them. In contrast consumers are not directly benefited by “planet” related initiatives, because these initiatives influence the environment and thus consumers will be indirect beneficiaries. These findings align with past research which suggests that consumers do not generally experience immediate individual benefits from the reduction of impact in the greater environment (Hartmann and Ibanez, 2006).

Environmental Value

The investigation regarding the impact of sustainability initiatives on Environmental Value shows that consumers perceive a product to provide better Environmental Value when the product label gives information about one of three sustainability initiatives (“people”, “planet” and “product”). As expected, the analysis shows that consumers tend to perceive
“planet” and “product” related initiatives to offer more Environmental Value than “people” related initiatives. Also, the results show that there is no significant difference in the perception of Environmental Value between “planet” related initiatives and “product” related initiatives. This shows that consumers perceive similar Environmental Value when the initiatives relate to reducing the product impact on the overall state of the environment (e.g., zero emissions, resource conservation) or when the product is constructed of environmentally friendly materials (i.e., organic cotton). Appendix L shows that the mean Environmental Value for product and planet related initiatives is the highest (5.5 and 5.6 respectively) among all other scenarios and consumer values. This finding suggests that the information provided to consumers to communicate the company’s sustainability initiatives have the most impact on the perception of Environmental Value related to the product.

Preliminary interviews with industry personnel suggested that retailers are observing an increased consumer awareness of environmental issues which motivate them to adopt sustainability initiatives which may lead to a positive brand attitude. The majority of the retailers today have websites that aim to provide consumers information about the company’s sustainability programs. In order to manifest industries’ efforts to be perceived as environmentally friendly, eco-labels have been appearing on a number of products in the United States and Europe (Nimon and Beghin, 1999). Grankvist, Dahlstrand & Biel (2004) suggest that eco-labels impact consumers’ product preference in a choice situation. The results of their study show that individuals who have a weak or no interest in environmental...
issues are unaffected by eco-labels, however, individuals with a strong interest in environmental protection have a positive attitude towards a product with an eco-label.

The findings of this study indicated high perceptions of Environmental Value under the product and planet scenarios, compared to the other scenarios. This suggests that marketers of apparel products who focus on the green consumers should consider the importance of environmental claims related to the product and planet as tools in their marketing strategy. Results of Cotton Incorporated’s 2012 Environment Survey also suggest that 44 percent of consumers look at the fiber content label and 40 percent of consumers look at the garment hand-tag to determine if a clothing item is environmentally friendly. Therefore, using eco-labels that provide information about the company’s environmental claim may be an effective communication medium for marketers of green products.

**Social and Emotional Values**

Analyses for Social and Emotional Value showed similar results as Price-purchase Value, indicating that consumers associate greater self-concept and positive emotions with a product which provides information about sustainability initiatives compared to a product which does not provide any sustainability information. These findings support the claims by Coddington (1993), who suggests that individuals perceive emotional benefits related to green products. He further points out that green marketing satisfies consumers’ emotional needs. In the book “Okologische Positionierungsstrategien”, Belz and Dyllik suggest that consumers may derive self-expressive benefits from socially visible consumption of green
brands (Hartmann and Ibanez, 2006). Thus, the choice of a brand that reflects information about a firm’s sustainability initiatives may lead consumers to perceive that use of this brand would allow them to demonstrate their environmental consciousness to others.

The results of the post hoc analysis for Social Value suggest that there is no difference in perception of Social Value for the three different sustainability initiatives. Thus, irrespective of the type of sustainability initiatives adopted by a company, the consumer will perceive uniqueness and greater self-concept associated with product purchase and use. In the case of Emotional Value, the results of the post hoc analysis showed that the perception of Emotional Value for initiatives related to people was greater than the perception of Emotional Value related to the planet. However, there was no significant difference in perception of Emotional Value between initiatives related to people and planet, and product and planet. The primary reason for this could be that initiatives involving people (e.g., such as employee engagement or charitable donations) may have a greater emotional impact compared to initiatives related to environmental protection (i.e., product and planet).

**Conclusions**

This study set out to develop a framework presenting various relationships between the impact of sustainability initiatives marketed by firms and consumer outcomes. Although recent changes in business environment have prompted researchers to pay attention to the topic of sustainability, there is a paucity of research on this topic in marketing journals. The review of literature indicated that the topics of stakeholder theory, corporate performance,
triple bottom line and citizenship behavior are the major research areas related to sustainability. Chabowski et al. (2011) identify five topics integral for examining sustainability in the marketing context: external-internal focus (concerning external and internal sustainability issues related to the organization), social-environmental emphasis (understanding the social and environmental issues related to sustainability), legal-ethical-discretionary intent, marketing assets, and financial performance. The literature review conducted for this research integrates all these areas and aims to provide a guiding framework for possible measurement opportunities to advance knowledge in both the sustainability literature and the marketing field.

The results of the empirical study provided insight into how consumers perceive the value provided by different sustainability initiatives. Findings of the study indicated that with the exception of Functional Value, sustainability initiatives impact the perception of Price-purchase, Environmental, Social and Emotional Value. Another interesting finding suggests that sustainability initiatives related to “people” had a greater impact than those related to “planet” and “product” on Price-purchase, Social and Emotional Value. The primary reason for this being initiatives related to “people” were more proximate to an individual than those related to “product” and “planet”. This suggests that marketers should increase the perception of individual benefits associated with sustainable products.
Implications to the Industry

In recent times, due to greater public scrutiny, the influence of environmental issues on marketing is an area of significant interest to the Textile and Apparel industry. An organization planning to adopt sustainability initiatives and leveraging these efforts to increase brand value needs to make a thorough internal assessment to make sure that the “sustainability” is the right fit for the organization. It is important for a company adopting sustainability initiatives to be able to transform this service offering into a viable business proposition and craft a distinctive, relevant, and lasting sustainable proposition that will differentiate the brand within the industry. In addition, to reap maximum benefits from the sustainability initiative, the company should also educate its consumers regarding the environmental issue by using the appropriate marketing channels (e.g., company websites, commercials, eco-labels, and social media). According to Cotton Incorporated’s 2012 Environment Survey 75 percent of consumers are more likely to believe an environmental claim is true if there is an environmentally friendly or organic certification, seal or trademark. Their survey results also showed that 44 percent of consumers use product labels, followed by 31 percent using internet, to determine the validity of an environmental claim. Following are two examples of eco-labels used by HP and Timberland to communicate their sustainability initiatives to their consumers.

Figure 5.1 presents the Eco Highlights label that is featured on select HP products that meet stringent environmental standards such as energy-savings and innovative material
use. The consumers can easily get information on key environmental attributes including energy efficiency, packaging and recycling information, in addition to qualifications such as Energy Star®. The label also provides the company’s “Eco Solutions” website that further provides information to consumers about the different sustainability initiatives adopted by the company.

![HP Eco Highlights Label](http://www.hp.com/hpinfo/globalcitizenship/environment/products/ecohighlights-label.html)

**Figure 5.1** HP Eco Highlights Label

(Source: HP Website: http://www.hp.com/hpinfo/globalcitizenship/environment/products/ecohighlights-label.html)

In 2007, Timberland presented eco-labels designed after USDA nutrition labels to help consumers scan the label for the metric that was most important for them (e.g., climate impact, resource consumption or eco-conscious materials) similar to how consumers scan
food labels (Figure 5.2). Timberland’s website also provides an online tech guide that explains the company’s eco-conscious and technical information.

![Image of Timberland Eco-label](http://community.timberland.com/Earthkeeping/Our-Footprint)

**Figure 5.2** Timberland Eco-label

(Source: Timberland Website: http://community.timberland.com/Earthkeeping/Our-Footprint)

The findings of this study provide green marketers with insight into the impact of sustainability initiatives marketed by a firm on the perceptions of consumer value. The
results of this study form the basis of a potentially valuable tool-kit to assist marketing planners and brand managers who create marketing and communication strategies for green products and services. The results suggest that four key consumer values: Price-purchase, Environmental, Social and Emotional; are influenced by the sustainability initiatives marketed to consumers. Specifically, sustainability initiatives related to “people” have the highest impact on the Price-purchase, Social and Emotional Value within the apparel context. Retailers and manufacturer brands may use this information to design labels that present key facts succinctly to consumers at the point of purchase. For example, if retailers want their consumers to perceive a greater Environmental Value from the product, then providing “planet” related information on the labels is advised. The eco-labels (i.e., HP and Timberland) shown above do not present any information about company’s employee engagement or philanthropic activities. There is a possibility that consumers may perceive a higher value for these brands (i.e., HP and Timberland) if the “people” related information is added to the eco-labels.

The data from the study imply that consumers weigh the importance of sustainability initiatives by first understanding how the initiative would affect them personally. Thus, the challenge for green marketers is to increase the perception of individual benefits of green products. Extending the idea that there is a near-universal desire to “feel at one with nature” (Kals et al., 1999), marketers may enhance the perceived value of green products by inducing positive emotional states through marketing and advertising initiatives aimed at producing environmentally sound products. In general, an advertising campaign based on “tree-
hugging” imagery, combined with clear information about the advertiser’s green products, will likely enhance perceived consumer value. This research also provides evidence that all the three types of sustainability initiatives (“people”, “planet” and “product”) add to consumers’ perceived social value of products. Thus, green marketers may want to position their brand in a manner that the choice of that green brand may allow consumers to demonstrate their environmental consciousness to others. Ultimately, consumers may derive self-expressive benefits from the socially visible consumption of green brands.

In summary, to leverage sustainability initiatives, marketers must design clear and direct communication for their target consumers that will increase their awareness of company efforts to build “sustainable” brands. Focus group outcomes suggest that using information labels, which provide clear information about the sustainability initiatives that a firm endorses, may help companies to garner credibility as opposed to companies that greenwash. This can also be accomplished by planning marketing and communication strategies that strengthen individuals’ perception of a product by making consumers’ aware of emotional, social and environmental benefits associated with the product.

**Limitations**

The findings of this study contribute to the sustainability and marketing literature, however, this study has several limitations. The study specifically examined the impact of three types of sustainability initiatives: “people”, “planet” and “product” on five different perceptions of consumer value (Functional, Price-purchase, Environmental, Social and
Emotional). Realistically, there may be other types of sustainability initiatives or consumer value dimensions that were not examined in this research. This limitation resulted from the paucity of materials in the literature relating to sustainability and consumer value, as well as the evolving nature of this phenomenon. This is a complex topic area, as it involves the cognitive as well as affective aspects of the consumer decision process. This research provides initial evidence of a linkage between sustainability initiatives and consumer value perception. Ongoing research related to the interaction of these marketing efforts and consumer attitudes and behaviors is necessary to understand the evolving marketplace that is increasingly demanding socially responsible corporations.

The sample used in this study is restricted to one segment of the population (i.e., undergraduate students) in one specific geographic location. Another limitation is the representativeness of the sample. Out of the 2,500 participants initially contacted for this study, 444 surveys were returned with a response rate of 17.8 percent. The 82.2 percent of non-respondents may tend to differ from the respondents in their perception of consumer values related to sustainability initiatives. Thus the findings of this study cannot be generalized as replication of the study using different samples may produce different results.

This research used jeans as the product for studying the different perceptions of value across the four test scenarios. Jeans is primarily associated as a product that provides high functionality. Also, Levis® which is one of the most popular denim brand, already has launched a marketing campaign that educates the consumers about sustainability. In Cotton Incorporated’s Environment Survey Levis® is the top mentioned environmentally friendly
brand. These factors may have driven scores for the value dimensions. So, it is possible that product manipulation with apparel items that are lower in Functional Value may indicate a different result.

Finally, the data analysis for this study was conducted using a repeated measures design which may have disadvantages. Mainly, the subjects can become better at a task over time, known as practice effects or may become worse showing boredom and fatigue. Also, some subjects may withdraw from the study before completing the entire sequence of treatments which can lead to a small sample group. The nature of data collection may have impacted the generalizability of the data.

**Future Research**

For academic marketing researchers, the literature review model presented in this research provides a framework for future research related to environmentally conscious purchasing behavior in the fields of marketing and consumer behavior. There is much opportunity for investigation of the interrelationships between variables, for understanding the complex phenomenon in relation to specific products and for investigating other factors that may influence the perception of value for green products. Table 5.1 provides future research recommendations for sustainability research suggested by the findings uncovered during the course of this research.

This research study employed a survey using an experimental design (four different scenarios) with once-only exposure to the information tags, and focused on a single product
category, jeans. The findings need to be examined for additional brands and product categories under different conditions. The participants of this study were undergraduate students. Future research should focus on a larger sample selection with older consumers from diverse geographical origins as this may provide a better understanding of the perception of consumer value related to green products for different age groups.

The measures used in this study demonstrated reliability and validity but are also limited. Measures for Environmental Value were developed for the purpose of the present study, and it is suggested that an important area for future research could focus on the development and refinement of measures related to Environmental Value. This may also result in an improved understanding of the relationships between the constructs considered in this study. As an extension to this study, future research should also aim to develop instruments to measure perceptual and attitudinal effects of different sustainability strategies, which would aid in development of more competitive green branding initiatives.

The results obtained in this study suggest that consumers perceive better Price-purchase Value and Emotional Value associated with the “people” related initiatives compared to “planet” and “product” related initiatives. Further research is required to understand the reason for these different value perceptions associated with the different sustainability initiatives. Also, this study did not measure the participants’ interest and support for environmental protection. Future research needs to be undertaken to understand if consumers’ environmental consciousness and interest in environmental protection has an effect on the perception of value related to sustainability initiatives.
<table>
<thead>
<tr>
<th>Topics</th>
<th>Recent Trends</th>
<th>Future Research Recommendations</th>
<th>Possible Measurement Opportunities</th>
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</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>Research examining the role of corporate social responsibility in the branding process and influence on brand equity</td>
<td>Examine the influence of sustainability on the brand process and brand value</td>
<td>Corporate reputation, consumer awareness, past brand associations, brand equity, consumer satisfaction, consumer attitudes, corporate social and environmental performance, environmental responsiveness, brand loyalty</td>
<td></td>
</tr>
</tbody>
</table>
| Strategy        | Understand how company actions and strategies impact corporate reputation      | • Develop measures for sustainability-based marketing assets  
• Distinguish between socially and environmentally focused issues to explore the influence of each on marketing outcomes and competitive advantage |  |  |
| Stakeholder:    | Growing interest in stakeholder theory and impact of corporate social responsibility on consumers | Explore the relative importance of socially and environmentally focused practices in shaping consumers’ attitudes and behaviors towards the firm |  |  |
| Consumer        |                                                                                |                                                  |                                   |  |
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APPENDICES
Appendix A

Sources of Literature for Conceptual Framework

<table>
<thead>
<tr>
<th>Publication Journals</th>
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<td>Academy of Management Review</td>
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Appendix B

Questions for Preliminary Industry Interviews

1. Can you tell me how your company defines CSR?
2. What areas of business come to mind when you think of CSR?
3. What initiatives is your company currently undertaking as a part of CSR?
4. What information according to you would help you take decisions pertaining to CSR more effectively?
5. Do you think it is important to understand consumer views on CSR?
6. How do you measure the effect of any decision on the market/business value of your firm?
7. Many companies stress their goodwill in marketplace. What areas of CSR do you think will be most important for the textile industry moving forward?
8. What will the major challenges be?
Appendix C

Survey Instrument

Consent Form

Dear Respondent,

I am inviting you to participate in a research project to study the impact of sustainability initiatives on customer value. Attached to this letter is a short survey with questions related to your attitudes about denim products. I invite you to complete the survey and return it to me. It should not take more than 15-20 minutes.

There are no risks associated with your participation in the study. Your responses will be completely anonymous. There are no identifying marks/links to you on the questionnaire. Do not identify yourself in any place on the document. Results will be reported in aggregate form. Your participation in the study is completely voluntary. Participation is not a course requirement and your grade will not be affected if you choose not to participate.

If you have questions at any time about the study or the survey, please contact me, Dnyanada Satam, at 2401 Research Drive, Box 8301, Raleigh, NC 27695, dssatam@ncsu.edu, or (919-946-4605). This study has approval from the North Carolina State University Institutional Review Board for the Protection of Human Subjects in Research. If you have questions about your rights as a research participant, you may contact Deb Paxton, Regulatory Compliance Administrator, Box 7514, NCSU Campus (919-515-4514).

Thank you in advance for your participation.

Sincerely,

Dnyanada Satam, Doctoral Student
dssatam@ncsu.edu
Marguerite Moore, Associate Professor
Marguerite_Moore@ncsu.edu

Consent To Participate

If you have read the above information and agree to participate, please complete and return the attached survey. This will indicate your willingness to participate. You may keep this page for your records if you like. If you do not wish to participate, you are free to leave or submit a blank survey.

Investigator's signature Dnyanada Satam Date January 10, 2012

THANK YOU FOR PARTICIPATING IN THIS RESEARCH STUDY!
I. Directions: Imagine a situation where you are shopping for a pair of jeans for yourself. You find four pairs that match your style and fit you well. Please examine the description for each of the four pairs of jeans and evaluate each product.
Pair 1

Thinking of this product specifically, please indicate the extent to which you agree or disagree with the following statements.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Neither Agree/Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<td>1.</td>
<td>This product is well-made</td>
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<td>2.</td>
<td>This product has an acceptable standard of quality</td>
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<td>3.</td>
<td>This product is reasonably priced</td>
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<td>4.</td>
<td>This is a good product for the price</td>
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<td>5.</td>
<td>This product is beneficial to environment</td>
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<td>6.</td>
<td>This product is sustainable</td>
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<td>7.</td>
<td>This product would make me feel good</td>
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<td>8.</td>
<td>This product would make me feel environmentally conscious</td>
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<td>9.</td>
<td>This product will arouse positive feelings in me</td>
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<td>10.</td>
<td>This product would make me happy</td>
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<td>11.</td>
<td>I would feel comfortable using this product</td>
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<td>13.</td>
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<td>14.</td>
<td>This item would improve the way I am perceived</td>
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Pair 4

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<td>3.</td>
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<td>6.</td>
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<td>[ ]</td>
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</tr>
<tr>
<td>9.</td>
<td>This product will arouse positive feelings in me</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>10.</td>
<td>This product would make me happy</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>11.</td>
<td>I would feel comfortable using this product</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>12.</td>
<td>Buying this product would make me feel proud</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>13.</td>
<td>This item would help me feel acceptable</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>14.</td>
<td>This item would improve the way I am perceived</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>15.</td>
<td>This item would make a good impression on other people</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
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<tr>
<td>16.</td>
<td>This item would give me social approval</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
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</table>
II. Directions: You have evaluated each product. Again, these jeans match your style and fit you well. Please indicate the extent to which you agree or disagree with the following statements.
## Pair 1

![Image of 100% Cotton Jeans]

<table>
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<tr>
<th></th>
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<th>Somewhat Disagree</th>
<th>Disagree</th>
<th>Neither Agree/Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>2. I would recommend this item to friends and relatives</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>3. I would not expect any problems with this item</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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### Pair 2

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<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<td>1. I would be willing to buy this item</td>
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<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
</tr>
<tr>
<td>2. I would recommend this item to friends and relatives</td>
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<td>[ ]</td>
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<td>[ ]</td>
<td>[ ]</td>
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<td>3. I would not expect any problems with this item</td>
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---

Our Company Foundation actively promotes workers rights, the fight against child labor, and builds assets to protect poor families and individuals.

$50.00
**Pair 3**

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<th>Somewhat Agree</th>
<th>Agree</th>
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<td></td>
<td>Strongly Disagree</td>
<td>Somewhat Disagree</td>
<td>Disagree</td>
<td>Neither Agree/Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
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<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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<tr>
<td>3. I would not expect any problems with this item</td>
<td>[ ]</td>
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<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
III. Demographics

Please answer the following questions for classification purposes.

1. What is your age in years?
   18 - 20 [ ]    24 - 26 [ ]    30 [ ]
   21 - 23 [ ]    27 - 29 [ ]    Other _______

2. What is your gender?
   Male [ ]    Female [ ]

3. What is your grade level?
   Freshman [ ]
   Sophomore [ ]
   Junior [ ]
   Senior [ ]

4. What is your major?
   ___________________________

5. Which of these categories best describes your ethnic background?
   White/Caucasian [ ]
   African American [ ]
   Hispanic [ ]
   Asian [ ]
   Native American [ ]
   Pacific Islander [ ]
   Other [ ]
Appendix D

Contact E-mails

Initial Contact E-mail

Dear {~ML|FirstName~},

Hope you are doing good!

I am Dnyanada Satam, graduate student at the College of Textiles, NC State University. I am writing this email to request you to participate in a survey for my dissertation research.

This research aims to study the impact of *sustainability initiatives on customer value*. Sustainability places innovation at the heart of attempts for more efficient use of company resources. With the information from this survey I would like to study if consumers really care about sustainability and if yes, which factor of sustainability is most valuable from the consumer point of view.

**Follow this link to the Survey:**

Take the Survey

Or copy and paste the URL below into your internet browser:
https://qtrial.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=9TETVMjhMlxaiBm_beggqbAGysoHLkJE&_=1

There is a consent form on the first page of this survey which will give you all the information about the survey. The survey should not take more than 15-20 minutes. If you have any questions or concerns please feel free to contact me at dssatam@ncsu.edu

I would sincerely appreciate it if you take this survey before February 10th. Your response is very valuable for my study.

Thank you so much for your time and help in this regard.
Have a good weekend!

Sincerely,
Dnyanada

Dnyanada S. Satam
Doctoral Student
Textile Technology Management
North Carolina State University

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Appendix D (contd.)

Reminder Contact E-mail

Dear {~ML|FirstName~},

Hope you are doing good!

This is a friendly reminder to please take a moment to fill out the following survey which is very important for my dissertation research. I would sincerely appreciate it if you take this survey as your response is very valuable and critical for my study.

I am Dnyanada Satam, graduate student at the College of Textiles, NC State University. I am writing this email requesting your participation in a short survey which is a key component of my dissertation research.

This research aims to study the impact of sustainability initiatives on customer value. Your responses will help me determine if consumers really care about sustainability and analyze the key factors of sustainability (economic, social or environmental) from the consumer point of view.

Follow this link to the Survey:

Take the Survey

Or copy and paste the URL below into your internet browser:
https://qtrial.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=9TETVMjhMlxaiBm_beggqbAGysoHLkE&_=1

There is a consent form on the first page of this survey which will give you all the information about the survey. The survey should not take more than 10-15 minutes and your responses will be anonymous. If you have any questions or concerns please feel free to contact me at dssatam@ncsu.edu

Thank you so much for your time and help in this regard.
Have a good weekend!

Sincerely,
Dnyanada

Dnyanada S. Satam
Doctoral Student
Textile Technology Management
North Carolina State University
Appendix E
Survey Tags for Focus Groups

Scenario: People
Appendix E (Contd.)

Scenario: Product

100% RECYCLED COTTON

This product is manufactured using cotton fibers following the Better Cotton Initiative (BCI) BCI environmentally sustainable cotton cultivation

$65.00
Made in Mexico

100% RECYCLED and CERTIFIED ORGANIC COTTON

$65.00
Appendix E (Contd.)

Scenario: Planet

100% COTTON

We are moving towards the use of 100% renewable energy in our operations, decreasing water usage and improving water quality, minimizing the environmental impact from chemicals and becoming a zero-waste company offering consumers more sustainable products.

$65.00
Made in Mexico

100% COTTON

We are moving towards the use of 100% renewable energy in our operations becoming a zero-waste company

ENERGY STAR AWARD 2011
SUSTAINED EXCELLENCE

$65.00
Appendix F
List of Majors and Frequency of Respondents

<table>
<thead>
<tr>
<th>Major</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>5</td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Animal Science</td>
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<tr>
<td>Anthropology</td>
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<td>Biological Sciences</td>
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<tr>
<td>Biomedical Engineering</td>
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<td>Bioprocessing Science</td>
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<td>Business</td>
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<td>History</td>
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### Appendix G

**Repeated Measures Results for Hypothesis One**

#### Mauchly's Test of Sphericity

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<th>Sig.</th>
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#### Tests of Within-Subjects Effects

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Appendix H

Repeated Measures Results for Hypothesis Two

Mauchly's Test of Sphericity

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Tests of Within-Subjects Effects

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## Appendix I

### Repeated Measures Results for Hypothesis Three

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Tests of Within-Subjects Effects

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163
Appendix J

Repeated Measures Results for Hypothesis Four

Mauchly's Test of Sphericity

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Tests of Within-Subjects Effects

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Appendix K

Repeated Measures Results for Hypothesis Five

Mauchly's Test of Sphericity

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Tests of Within-Subjects Effects

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## Appendix L

Mean values of consumer dimensions across four test scenarios

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